

**COMMUNICATIONS
ALLIANCE LTD**



TELECOMMUNICATIONS IN ROAD RESERVES –
OPERATIONAL GUIDELINES FOR INSTALLATIONS

INDUSTRY GUIDELINE

G591:2006

G591:2006 Telecommunications in Road Reserves – Operational Guidelines for Installations Industry Guideline

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EXPLANATORY STATEMENT

These guidelines have been jointly prepared and subsequently revised by an 'inter-industry' group of representatives from Austroads and several Carriers. The guidelines are intended to provide reasonable and practical assistance with, and encourage, operational co-ordination between Carriers and Road Authorities in relation to telecommunications facilities in road reserves controlled by Road Authorities.

One of the many developments in the telecommunications industry has been the increase in the number of Carriers installing and operating substantial network infrastructure. This has increased the implications for Road Authorities (and Carriers) and raised the need for suitable, up-to-date operational guidance for the installation and maintenance of network facilities in road reserves generally.

It is both appropriate and beneficial that Carriers and Road Authorities are able to effectively consult and co-operate in this current context and, accordingly, the relevant roles and concerns of Road Authorities should be understood. These include in regard to (but not limited to) the safety of road users, the efficiency of road traffic, the effective use of limited space in road reserves, the security of facilities in the road reserve from accidental damage and service disruption, and the potential for costly future alterations to (e.g. relocation of) facilities in the road reserve.

Similarly, those matters are also necessarily important to Carriers planning to install, or who are operating, facilities in road reserves, and these guidelines promote an approach and practices which generally address them and other related topics.

Likewise, an understanding by Road Authorities of Carriers' purpose and needs and some framework for general co-operation as intended by these guidelines should ordinarily facilitate reasonable outcomes.

These guidelines recognise that they cannot specifically address all issues and matters subject to particular sets of circumstances. Accordingly, these guidelines also encourage the consideration of bilateral arrangement/s between a Carrier and a Road Authority to cover relevant issues and/or particular cases when appropriate.

Don Kerwin
Chairman
OCR/ WC26 : Telecommunication Facilities in Road Reserves Working Committee
April 2002

Mike Johns
Chairman
ORP/ WC41 : Telecommunication Facilities in Road Reserves Revision Working Committee
December 2006

PREFACE

This document sets out the operational guidelines for the installation, use and maintenance of Australian Telecommunications Carriers' facilities within road reserves controlled by member authorities of Austroads. Controlled means a road proclaimed, declared or otherwise classified under the powers bestowed by legislation on the Road Authority.

It is not possible in guidelines of this nature to provide a solution for every situation. It is necessary to maintain a reasonable and co-operative attitude in dealing with issues, and to identify solutions that take account of the total community interest.

These guidelines were jointly prepared by the Communications Alliance Ltd and Austroads. They are not retrospective and are not intended to override the legislative powers or commercial discretion of the various Road Authorities or Carriers, nor conflict with specific written agreements between Road Authorities and Carriers.

Austroads and the Communications Alliance Ltd have acknowledged that no changes will be made to these guidelines unless agreed by both parties.

The provisions of these guidelines are identical with AP G72/07 *Telecommunications in Road Reserves - Operational Guidelines for Installations*. Copies of Communications Alliance guidelines and codes may be viewed by visiting the Communications Alliance website – www.commsalliance.com.au and selecting 'Documents'.



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1 GENERAL

1.1 Purpose

The purpose of these guidelines is to outline ways in which Road Authorities and Carriers can manage their respective facilities in road reserves safely, effectively and efficiently.

1.2 Co-operation

Road Authorities and Carriers have a responsibility to co-operate in carrying out their works and to minimise total community costs.

1.3 Bi-lateral Agreements

Road Authorities and Carriers are encouraged to enter into agreements, wherever practicable, to provide clarity and consistency about the manner in which the parties undertake their respective activities and fulfill their obligations. As a general rule, agreements should only be developed between one Road Authority and one Carrier, including their duly authorised agents, including contractors. There are several types of agreements that can be entered into. The most common types of agreements, along with guiding principles for their development and use, are as follows:

1.3.1 Low Level Agreements

A Carrier (or its authorised agents, including contractors) and a Road Authority (or its authorised agents, including contractors) may enter into agreements about low-level matters, generally of a project-specific nature. This can include such matters as project-specific technical requirements or requested location changes. The agent will usually have delegated or contractual accountability to agree to certain matters on behalf of the Carrier or Road Authority without reference back to the Carrier or Road Authority.

1.3.2 Code Notification Agreements

The Telecommunications Code of Practice enables a Carrier to agree in writing with a Road Authority (as a manager of public land) affected by a maintenance or low-impact facility activity for alternative notification arrangements. The Carrier must comply with such an agreement.

A Code Notification Agreement can vary the statutory timeframes for notification, waive notification altogether for specified activities, and specify alternative methods of notification delivery e.g. by e-mail.

A Carrier must provide a copy of a Road Authority Code Notification Agreement to the Australian Communications and Media Authority.

1.3.3 **Clause 11 Agreements**

The *Telecommunications Act 1997* requires a Carrier to make reasonable efforts to enter into an agreement with a public utility that makes provision for the manner in which the carrier engages in an 'authorised activity' that is likely to affect the operations of the public utility. A Clause 11 Agreement can be either project-specific or activity-based. It can address issues such as:

- (a) Notification arrangements.
- (b) Technical standards.
- (c) Level of documentation.
- (d) Safety requirements.
- (e) Restoration requirements.
- (f) Emergency arrangements.
- (g) Contact protocols.

It is expected that a Clause 11 Agreement would be signed by authorised representatives of a Carrier and a Road Authority.

1.3.4 **Licence Agreements**

From time to time, a Carrier and a Road Authority may decide to enter into a Licence Agreement to record certain rights of the Carrier to occupy land and structures or to undertake certain activities. The licensing arrangements may operate in conjunction with the exercise of Carrier powers, or may operate solely under commercial terms and conditions.

The licence may grant rights to either party to undertake additional activities outside the normal scope of works. The licensing arrangements may also incorporate matters similar to a Clause 11 Agreement. It is expected that a Licence Agreement would be signed by authorised representatives of a Carrier and a Road Authority.

Some further guidance on the typical contents of a bi-lateral agreement is provided in Appendix A.

1.4 **Related ACIF Industry Code**

The attention of users of these guidelines is directed to the current version of the External Telecommunications Cable Networks Industry Code (ACIF C524), which addresses several significant issues in relation to the installation of telecommunications cables within road reserves. References to specific sections of this Industry Code have been included at appropriate points within these guidelines.

1.5 General roles and responsibilities

It is recognised by Road Authorities and Carriers that it is necessary to consult and jointly consider the placement of telecommunications facilities in road reserves. Road Authorities are responsible for overall management of road reserves and for coordinating the allocation of space for services located in road reserves.

1.6 Carrier role

The business context for Carriers is one that focuses strongly on meeting customer service obligations and minimising costs. This means that a large part of the work of Carriers is in direct response to customer demands and services must be delivered within short time frames and tight budgets. Carriers operate in accordance with the *Telecommunications Act 1997*, the *Telecommunications Code of Practice 1997* and the *Telecommunications (Low Impact Facilities) Determination 1997* and subsequent amendments.

1.7 Road Authority role

Road Authorities are accountable for delivering services to their customers efficiently, effectively and to agreed quality standards. A large part of the work carried out by Road Authorities can be planned in advance. Larger road projects can often take 10 to 20 years from the time the initial concept is developed, to completion of the works. Road Authorities operate in a constrained budget environment and it is therefore important for Road Authorities to keep costs associated with relocation of services and accidental damage to services, to a minimum. Road Authorities operate in accordance with their relevant State Acts of Parliament. Due to the requirement for public consultation and changing patterns of land development, the exact form that road upgrading works may take, and the timing of these works can be uncertain at times.

1.8 Environmental issues

Management of environmental issues is given a high priority by both Road Authorities and Carriers. All works carried out on the road reserve need to be sensitive to the environment and will take into consideration any Roadside Management Plans prepared by Road Authorities and be consistent with Carriers' obligations in respect of environmental considerations.

Further guidance on the matters to be considered when working in the vicinity of street trees and high conservation value roadside vegetation can be found in Clause 11.3 of the current version of the External Telecommunication Cable Networks Industry Code (ACIF C524), which deals with Tree Impact.

1.9 Retrospectivity

These guidelines are not retrospective.

2 TERMS AND DEFINITIONS USED IN THESE GUIDELINES

2.1 Access to freeways and controlled access roads

The classifications freeway and controlled access road are not related to adjacent land use. Frontage access to freeways is generally prohibited and in the case of controlled access roads, is limited. Freeways and controlled access roads may be urban or rural.

2.2 Austroads

Austrroads is the association of Australian and New Zealand road transport and traffic authorities. Austrroads aims to provide strategic direction for the integrated development, management and operation of the Australian and New Zealand road system.

2.3 Carrier

Carrier has the same meaning as the term carrier in the *Telecommunications Act 1997*.

2.4 Clear zone

Clear zone means the distance from the edge of the road that is to be free of fixed roadside hazards that may contribute to serious injury in the event of a road crash.

2.5 Communications Alliance Ltd

Communications Alliance Ltd is an industry owned and operated company formed in 2006 to provide a unified voice for the Australian communications industry and to lead it into the next generation of converging networks, technologies and services. The Australian Communications Industry Forum (ACIF) is a division of Communications Alliance.

2.6 Controlled Access Road

A controlled access road, as the name implies, is a road where access from the abutting land is controlled, and limited under the powers of the Road Authority. Controlled access roads may be divided or single carriageway.

2.7 Freeway

- (a) The term *freeway* in these guidelines refers to a road with access limited to interchanges, and generally with divided carriageways, designed for high traffic capacity and high operating speed, with particular emphasis on safety of operation. Freeways are described by terms, which vary from State to State such as freeway, motorway, expressway or toll road.
- (b) For the purpose of these guidelines, the term *freeway* is also considered as including any land where the Road Authority has

defined the boundaries or acquired the land or made a firm offer to the owner to acquire the land for freeway purposes.

2.8 Low impact facility

A low impact facility means a facility defined to be a low impact facility under the *Telecommunications (Low Impact Facilities) Determination 1997* (Commonwealth) as amended ("Determination"). Low impact facilities include certain:

- (a) radio communications facilities;
- (b) underground and above ground housings;
- (c) underground cable facilities;
- (d) public payphones;
- (e) emergency facilities; and
- (f) co-located facilities.

A facility will only be a low impact facility if it is installed, or to be installed in accordance with the criteria specified in the Determination, which include reference to size and location.

2.9 Road Authority

Road Authority means any member authority of Austroads.

2.10 Roadside Management Plans

Roadside Management Plans are documents that have been prepared by some Road Authorities outlining the ways in which they intend to manage that part of the road reserve between the outer edge of the road carriageway and the road reserve boundary. The plans are usually road specific and commonly include a comprehensive inventory of existing roadside vegetation.

2.11 Telecommunications Act

Telecommunications Act means the *Telecommunications Act 1997* (Cth) as amended.

2.12 Telecommunications Code of Practice

Telecommunications Code of Practice means the *Telecommunications Code of Practice 1997* (Cth) as amended.

2.13 Telecommunications Determination

Determination means the *Telecommunications (Low Impact Facilities) Determination 1997* (Cth) as amended.

2.14 Telecommunications facility

Telecommunications facility has the same meaning as defined in the Telecommunications Act. It includes any part of the infrastructure of a telecommunications network, or any line, cable, equipment, apparatus, tower, mast, antenna, tunnel, duct, hole, pit, pole, or other structure or thing used, or for use, in or in connection with a telecommunications network.

2.15 Types of road

The broad considerations relating to the installation of Carrier facilities in road reserves will vary with the type of road. For the purposes of these guidelines, roads are divided into four categories:

- (a) Freeways.
- (b) Controlled access roads.
- (c) Urban roads.
- (d) Rural roads.

2.16 Urban and rural roads

Whether a road is classified as urban or rural is determined from the predominant abutting land use. For the purpose of this document, where land use is predominantly residential, commercial or industrial, the road is classified as urban, and where land use is predominantly agricultural, pastoral, irrigation or forestry, the road is classified as rural.

3 CO-ORDINATION BETWEEN ROAD AUTHORITIES AND CARRIERS

3.1 Co-ordination of future works

Co-ordination between Road Authorities and Carriers should be achieved by the exchange of information regarding future development plans (co-ordination may also involve the on-going management of telecommunications facilities). This should occur at two levels. Firstly at program level, as the need for future works is first identified and concepts are developed. Then secondly at project level, as the detailed plans are prepared. Extension of Carriers' telecommunications networks and upgrading the capacity of existing networks are examples where co-ordination of future works should be undertaken. It is recognised that a majority of Carriers' activities are usually related to customers requesting service connections, and inspection and maintenance of those connections. These activities are typically carried out over short time frames and are not generally amenable to long term planning.

3.2 Road Authorities and Carriers to work together co-operatively

The best overall solution in the interests of the community should always be sought. Circumstances existing at the time and those likely to arise in the future should both be considered. Total project costs, environmental issues, the objectives of their respective legislation, public safety and other factors will be considered jointly by Carriers and Road Authorities.

3.3 Works to be carried out in accordance with agreements

Once the planning, consultation and notification phases of a project are completed, a Carrier must carry out the activity in accordance with any agreements reached with the Road Authority. The activity should also be carried out in accordance with any appropriate industry standards, codes and international agreements.

3.4 Considerations for Carriers when working in road reserves

All reasonable steps must be undertaken by a Carrier to ensure that the activity results in as little detriment and inconvenience, and as little damage as is practicable. In addition, a Carrier must take all reasonable steps to:

- (a) act in accordance with good engineering practice;
- (b) protect the safety of persons and property;
- (c) ensure that the activity interferes as little as practicable with:
 - (i) the operations of a public utility;
 - (ii) public roads and paths;
 - (iii) the movement of traffic;

- (iv) the use of land; and
- (d) protect the environment.

3.5 Exchange of information

3.5.1 Discussion of future programs of work

At times that are mutually agreed, meetings should be held to discuss future plans and major projects of Road Authorities and Carriers. The opportunity should also be taken to discuss other issues e.g. the possible use of new technologies, which could affect each other's interests. If it is considered appropriate, the meetings may also include other service authorities.

3.5.2 Discussion of future projects

Proposals for installing new Carrier facilities or upgrading existing facilities should be discussed with the Road Authority as soon as reasonably practicable. Proposals for roadworks should also be discussed with Carriers as soon as reasonably practicable. It is usually easier and less costly to amend plans during the planning and design stages, than to try to make changes when work has started on site:

- (a) Forward planning and co-operation between officers of Road Authorities and Carriers may achieve considerable benefits once a project has been identified. Where the interests of the two organisations differ, each case should be treated on its merits and compromises made where practicable.

Examples are:

- (i) Minor changes to road alignment and/or level to avoid costly alterations (including relocation) to existing Carrier facilities; and
- (ii) Minor changes to the proposed location of a Carrier cable cabinet installation to another location to avoid future costly alterations due to proposed road widening.

On occasions, forward plans of a Road Authority, particularly involving land acquisition, could be of a confidential nature. Forward plans of a Carrier may contain information that is commercially sensitive or confidential. It will be necessary therefore, that such information is kept confidential. It should also be recognised that there may be circumstances when a Carrier or Road Authority may be unable to provide plans to the other party.

- (b) Proposals for new Carrier installations or augmentation of existing installations should be given to the Road Authority as soon as reasonably practicable. Plans submitted to the Road Authority should be drawn to a suitable scale, fit for

purpose clearly showing the extent of the proposed works within the road reserve. To enable the Road Authority to properly assess each proposal, plans should include a north point, details of the road(s) affected by the proposal, alignments and depths of the proposed works, installation methods, details of proposed road crossings and any environmental impact for example, the full extent of vegetation clearing within the road reserve. Carriers should also consult with other service authorities to manage any conflict with their assets. For complex proposals, a longer period of consultation is desirable to allow adequate time for the Road Authority to work through any issues with the Carrier. For all but minor works, Carriers should attempt to consult with and reach agreement with Road Authorities on issues such as the following, prior to sending formal notices, when proposing to install low impact facilities:

- (i) Depths and locations of facilities proposed by Carriers will need to be indicated on the plans. Where new roadworks or alterations to existing roads are planned, the Road Authority will, where possible, specify in its reply the depths and locations at which it considers Carrier's facilities should be installed. An attempt should be made to resolve any differing requirements by discussion. Where it is impracticable for facilities to be laid at the depths and/or locations proposed because of planned roadworks (e.g. lowering the road level), the matter should be jointly examined, and an attempt made to agree on a solution and responsibilities of the parties after considering the various options available. These options could include:
 - (A) deferring placement of the facility;
 - (B) placing the facility at the depth and/or location which would be ultimately necessary;
 - (C) adopting an alternative route and placing a temporary facility for the period until roadworks take place then constructing the proposed facility when the roadworks are finished; or
 - (D) placing the proposed facility at the depth and/or location indicated initially and lowering or shifting the facility, when appropriate.
- (ii) Where future road developments may be affected or an additional expense may be incurred by a Road Authority, the possible effect of a Carrier's proposals on the Road Authority should be brought to the attention of the Carrier. In urban or near urban areas where future developments such as road widening, change in land use, subdivision of land, or the establishment of service roads in parallel with the

through carriageway(s) are common occurrences, the proposed location of Carrier facilities should receive detailed consideration.

- (c) Proposals for Road Authority roadworks should be carefully examined by Carriers to determine any existing Carrier facilities likely to be affected by changes to existing alignments and levels. The possible extent and estimated cost of any alterations that may be required should be brought to the notice of the Road Authority in a timely manner, for its consideration.
- (d) When a Road Authority is proposing to carry out roadworks (including resurfacing works), it should consider Carriers that may have an interest in installing infrastructure at that location in the near future. Where technically feasible and reasonably practicable, it may be mutually beneficial to install conduits before or during the roadworks, for example, to accommodate future Carrier cables. Any commercial arrangement for the installation and use of conduits should be agreed between the Road Authority and the Carrier.

If a Road Authority requests a Carrier to bring works forward, then this should be by agreement. Factors to be considered when negotiating such an agreement should include:

- (i) the ability of the Carrier to design and construct the works earlier than planned; and
- (ii) whether the Carrier is able to fund the works earlier than planned and whether the Road Authority may contribute to the cost of bringing the Carrier's works forward.

The same principles apply when a Carrier requests a Road Authority to bring works forward. It is desirable to avoid a situation where a Road Authority or Carrier is requested to delay works, as this may involve liability issues if the delay in the works is linked to an accident or financial loss.

3.5.3 Management of activities including escalation of issues

- (a) It is important that consultation and good working relationships are maintained between Road Authorities and Carriers when planning, designing, locating and installing telecommunications facilities. This will assist both the Carrier and Road Authority in understanding the proposed activity and resolving any issues of concern. All such consultation should be properly managed and appropriately documented.
- (b) If, after due consideration and consultation, an issue cannot be resolved between a Carrier and a Road Authority, the Telecommunications Act and the Code of Practice outline the process to be followed.

- (c) Bi-lateral agreements may also include provisions for alternative processes for escalation of issues.
- (d) Where Carriers do not have powers and immunities under the Telecommunications Act, normal planning legislation applies. The relevant State and Local Government laws govern escalation of issues in this category.

3.5.4 **Emergency and after-hours contact**

Road Authorities and Carriers should exchange details of personnel who can be contacted in emergency and after-hours situations on a project by project basis, at the start of each project.

Bi-lateral agreements should outline specific contact arrangements agreed between the parties and any relevant emergency procedures. Road Authorities and Carriers should also support the planning process established for the management of emergencies in each State or Territory.

4 GENERAL CONSIDERATIONS FOR POSITIONING TELECOMMUNICATIONS FACILITIES IN ROAD RESERVES

4.1 Positioning of Carrier facilities on roads subject to future widening

There will be road reserves for which the Road Authority has definite plans concerning road reconstruction, or road or pavement widening (including roads appearing as such on Planning Schemes). The installation or augmentation of Carrier facilities in those road reserves needs careful consideration by both parties. The placement of Carrier facilities may need to be considered along an alternative route where they will be unaffected by roadworks. Matters of this nature may be addressed further in bi-lateral agreements.

4.2 Considerations for positioning of Carrier facilities in road reserves

When determining the positioning of telecommunications facilities in road reserves, a number of matters will need to be considered including the following:

- (a) The possibility of damage to the facilities during roadworks and the need to maintain the security of important telecommunication routes.
- (b) The costs and viability of alternative routing options available to Carriers.
- (c) Possible conflict with future roadworks, using the best available information about those roadworks.
- (d) The degree of danger presented to Carrier workers engaged in installing or maintaining facilities throughout their life.
- (e) Any adverse effects on Carrier facilities due to vibration resulting from road traffic.
- (f) Any hazard which telecommunications facilities and protective devices might present to vehicles on the roadway or vehicles entering or leaving the roadway.
- (g) Any restriction to road users' sight distance that might be caused by telecommunications facilities and protective devices.
- (h) Any obstruction to pedestrians that might be caused by telecommunications facilities and protective devices.
- (i) Any other reductions in road safety or efficiency of road operations that could be associated with the construction and/or maintenance of facilities.
- (j) Environmental issues, including consideration of any relevant Roadside Management Plans prepared by Road Authorities.

4.3 Guidance on alignments for Carrier facilities

4.3.1 Location of Carrier facilities with respect to road infrastructure

Where it is mutually accepted that Carrier facilities will be installed in a given road reserve, one of two cases will generally apply. These are:

- (a) The road and/or bridgeworks, including footpaths, occupy the full width of the existing road reserve, and therefore Carrier facilities must be installed within part of the road infrastructure and/or bridgeworks.

In this case, the Carrier and Road Authority will mutually agree on the position of the Carrier's facilities and any protection required for those facilities.

- (b) The road and/or bridgeworks do not occupy the full width of the existing road reserve and therefore the Carrier's facilities can either remain within the extent of the present or future road infrastructure and/or bridgeworks, or be located outside the limits of such road infrastructure and/or bridgeworks within the road reserve.

In this case, Carriers will endeavour to avoid placing facilities on the Road Authority's bridges, bridge approaches, embankments or roadworks unless it is economic and advantageous from the combined considerations of both the Carrier and the Road Authority. The analysis of such cases will take into account factors including:

- (i) the capital cost of alternative installations, including roadworks and Carrier facilities;
- (ii) likely costs and difficulties of augmentation of Carrier facilities and/or road facilities;
- (iii) relative security of the alternative locations of Carrier facilities;
- (iv) ease of access for maintenance purposes of Carrier facilities; and
- (v) possible interference to road traffic during installation and subsequent inspection and maintenance of Carrier facilities.

4.3.2 Other guidance on preferred alignments for Carrier facilities

In respect of preferred alignments from the property line, Carriers' facilities will be installed in accordance with any local agreement or Utility Providers Code of Practice existing between the Carrier and the other service authorities, the Road Authority and the relevant Local Government Authority.

4.3.3 Positioning of Carrier facilities with respect to other utility infrastructure

In cases where another public utility or Carrier has already placed a facility in what is presently recognised as the preferred telecommunications carrier location, responsibility for resolution of the alignment should be by discussion, firstly between the service authorities and then with the Road Authority, if necessary. The solution to be adopted is that which is in the best overall interests of the community, and should take into account the Carrier's plans and costs and the Road Authority's plans for future use of the road reserve.

If the need arises for portions of a Carrier's facility, e.g. a large manhole, to extend wider than the agreed space allocation, the Carrier should consult with potentially affected service authorities and consider their requirements before installing any such facility.

4.3.4 Positioning of Carrier facilities within narrow road reserves

Sometimes a Road Authority will need to acquire a strip of land abutting an existing road reserve for road widening purposes, or to acquire land for a road reserve in a new location. If the Road Authority is unable to make provision for pedestrians, for example because of the high cost of the land, then Carriers should consider installing their facilities along an alternative route.

5 SPECIAL CONSIDERATIONS FOR POSITIONING TELECOMMUNICATIONS FACILITIES IN ROAD RESERVES

5.1 Freeways

5.1.1 Freeways in a new location

Where a freeway is in a new location, Carrier facilities will not be installed longitudinally within the freeway boundaries, and Carrier facilities located adjacent to the freeway will not be maintained from within the freeway. Where frontage roads outside the freeway are constructed, Carrier facilities should generally be located on, and maintained from, these frontage roads.

5.1.2 Roads converted to freeways

- (a) Relocation of existing telecommunications facilities on or adjacent to a road converted to a freeway may not be necessary if both parties agree that the facilities can be maintained without access from the through carriageways or ramps. Otherwise, relocation or other provisions may be necessary to enable the facilities to be maintained.
- (b) In situations where no Carrier facilities exist on a road prior to its conversion to a freeway, it should be dealt with in the same manner as freeways in a new location.

5.1.3 Carrier facilities crossing freeways

(a) Aerial Cables

Existing aerial cables crossing freeways should generally receive a high priority to be relocated underground, and placed in conduit. Where technical or other considerations suggest that existing or new facilities should cross above a freeway, rather than below it, agreement will be negotiated between the Carrier and the Road Authority as to the proposed location. New aerial cables cannot be low impact facilities under the Telecommunications Act and therefore State laws will apply to their installation.

Structures will not be erected in freeway reserves, except in exceptional circumstances and by mutual agreement of the Road Authority and the Carrier as to location and type of structure.

Where it is agreed that exceptional circumstances exist and structures are required within the freeway reserve, the following conditions will apply:

- (i) Poles or structures will be located at least 10 metres outside the outer edge of either shoulder after making allowance for possible road widening.

- (ii) Poles or structures will not be placed in medians having a width of less than 24 metres at the ultimate stage of development.
- (iii) For guidance on vertical clearances to aerial cables, refer to the current version of Section 8.4 of the External Telecommunication Cable Networks Industry Code (ACIF C524)

(b) **Underground Facilities**

Underground crossings of freeways will be designed in consultation with the Road Authority and, wherever practicable should be installed before or during construction of the freeway, preferably on or at grade separation structures. Carrier facilities will be installed in ducts terminating in manholes or pits outside the freeway boundaries in locations agreed between the Road Authority and the Carrier.

Alternatively, the facilities may be installed in a services tunnel, which may be shared with other service authorities.

In the case of existing highways converted to freeways, this may involve the relocation of Carrier manholes and pits outside the freeway boundaries, and the associated re-arrangement of cables and cable joints.

5.1.4 **Special cases**

If it is considered to be in the community's best interests to depart from the above guidelines, each particular case will be the subject of discussion between senior representatives of the Road Authority and the Carrier. Special cases could occur where it is necessary to, for example:

- (a) install manholes and pits for access purposes within the boundaries of freeways when constructing crossings;
- (b) maintain and/or augment telecommunications facilities in or adjacent to highways converted to freeways where such facilities require maintenance from the through carriageways or ramps; or
- (c) install facilities longitudinally in a freeway created in a new location.

It is intended that these special cases would be an unusual feature and would occur infrequently.

5.2 Controlled access roads

5.2.1 **Installation of Carrier facilities for existing controlled access roads**

Desirable objectives for the installation of Carrier facilities in controlled access roads may vary. For roads carrying, or planned to carry, high volumes and/or high speed traffic, the installation

may be similar to that for Carriers' facilities on freeways. Where controlled access roads are in rural areas or carrying smaller volumes of traffic, relaxation of the above practices may be possible.

5.2.2 **Installation of Carrier facilities for future controlled access roads**

If an existing road is likely to become a controlled access road, initial installation and/or augmentation of existing services should be avoided.

5.3 **Urban roads**

5.3.1 **Carrier facilities on highly trafficked urban roads**

Carrier facilities placed in urban road reserves carrying considerable traffic may be subject to costly alterations (including relocation) and at greater risk of accidental damage. Therefore, even though a Road Authority may not have immediate plans for road widening on these roads, the planning of Carrier facilities should consider installation on alternative roads carrying less traffic if this is practicable. These alternatives should be examined against the total costs of alternative installation and customer impacts. Any analysis of such costs between alternative installations should consider any likely alteration costs.

5.3.2 **Positioning of Carrier facilities for urban roads**

Underground facilities placed longitudinally in a road reserve should be located under the verge and not under the road pavement. When it is agreed between a Carrier and a Road Authority that Carrier facilities will be placed (or will remain) under the road pavement, the facilities should be of a nature seldom requiring service or maintenance and placed at adequate depth. If it is necessary to place pits or manholes under the road pavement, personnel access to such pits or manholes should generally be by means of an entry located in the verge. By arrangement with the Road Authority, work on the road pavement may be carried out during specified hours, during which the road or portion of the road might be closed. The Carrier may be required to prepare a traffic management plan, consistent with the Road Authority's standard processes. These provisions are desirable for the safety of both road users and the Carrier's workers.

5.3.3 **Roads on the fringe of urban areas**

To allow for expected development, certain roads, at present rural in nature and on the edges of urban development, should be specially examined by the Road Authority at an early date to determine whether they would warrant upgrading as development proceeds. These same road reserves are likely to be the preferred location for telecommunications carriers to install new facilities and other service authorities to locate their facilities. It is therefore in the community's best interests that Road

Authorities and Carriers plan well ahead and in a coordinated manner for their respective works on these road reserves.

5.4 Rural roads

5.4.1 Positioning of Carrier facilities for rural roads

On rural roads other than rural freeways and controlled access roads, Carrier facilities should be located away from the pavement and as close to the boundary fence as practicable, having regard to other factors such as other installed services, minimising impact to the natural environment etc. Some Road Authorities have policies that require facilities to be located outside the road reserve unless there are abnormal circumstances preventing such location.

Where the width of the rural road is restricted, consideration may be given to locating facilities on adjacent private property. Environmental factors may largely determine which location is finally adopted.

5.4.2 Positioning of other Carrier facilities

Jointing pits and manholes should be located in positions mutually acceptable to the Road Authority and Carrier. Above ground facilities e.g. poles, towers, etc. should be located outside the clear zone (at least 10 metres away from the nearest edge of pavement on most rural roads). If it is considered necessary to have any above ground facilities located within the clear zone, this must be the subject of a separate agreement negotiated with the Road Authority on a case by case basis, and protection is likely to be required.

5.5 Additional guidance on positioning Carrier facilities and depth of cover

For additional guidance on the positioning of Carrier facilities in road reserves, refer to the current version of Section 9.2 of the External Telecommunication Cable Networks Industry Code (ACIF C524).

For guidance on depth of cover of underground cables in road reserves, refer to the current version of Section 9.4.3 of the External Telecommunication Cable Networks Industry Code (ACIF C524).

5.6 Railway level crossings

If Carrier facilities are to be installed in a road reserve within the limits of a railway level crossing, the Carrier should also consult with the relevant rail infrastructure manager to attempt to reach agreement on any conditions for locating the facilities under or over the railway line(s). Some general guidance is provided in the current version of Australian Standard AS 4799, 'Installation of underground utility services and pipelines in railway reserves'.

6 ATTACHMENT OF TELECOMMUNICATIONS FACILITIES TO ROAD AUTHORITY STRUCTURES

6.1 Agreements

Attachment of Carrier facilities to a Road Authority structure e.g. bridge, light pole, overhead sign structure, traffic signal pedestal etc. may be the most appropriate solution in a particular case. Where this is done, the Road Authority and Carrier may enter into an agreement covering the terms and conditions for attaching facilities to the structure. Aspects to be covered in such an agreement should include the method of attachment, access to facilities for maintenance, indemnity for damage, responsibility for costs of relocation, etc. If installing a low impact facility, a Carrier may rely on its powers and immunities under the Telecommunications Act. Road Authority requirements regarding road safety must be complied with in these situations. Road Authorities may not agree to attachment of Carrier facilities to some structures (e.g. those of heritage significance).

6.2 Planning for new structures

When a Road Authority is planning to build a new structure, the possibility of it being used to accommodate Carrier facilities will be considered by the Road Authority. Carriers will, if necessary, supply to the Road Authority details of their requirements for incorporation in the design of the structure.

6.3 Alterations to existing structures

When an existing Road Authority structure is to be reconstructed, modified or replaced, the nature and extent of any required alterations to Carriers' facilities attached to the structure should be jointly examined by the Road Authority and the Carriers to ensure that the best overall economic solution is obtained. Where it is agreed Carriers' facilities must be relocated or replaced, this will be expeditiously arranged by Carriers.

6.4 Positioning Carrier facilities to allow for future alterations to a structure

When a Carrier is proposing to attach a facility to a Road Authority structure, consideration should be given to the possibility of future modifications to the structure e.g. in the case of a bridge this might be to widen it, to increase its carrying capacity. Carrier facilities should be attached to the structure so that any disturbance will be minimised as far as practicable.

6.5 Considerations for attaching Carrier facilities to structures

When determining the details of attaching a telecommunications facility to a Road Authority structure, the following factors will be considered:

- (a) attaching the facility should not involve drilling into any of the structure;

- (b) attaching the facility should not interfere in any way with the Road Authority's ability to physically inspect or maintain the structure;
- (c) having the facility attached to the Road Authority structure should not compromise the health and safety of Road Authority staff required to carry out maintenance work on the structure. This particularly applies to facilities that emit Electro Magnetic Radiation. Work procedures may need to be jointly developed by the Carrier and Road Authority to ensure compliance with all relevant OH&S requirements; and
- (d) the visual amenity of a facility, when attached to a Road Authority structure, should be jointly considered by the Carrier and the Road Authority.

7 ROAD AUTHORITY CONSIDERATIONS WHEN PLANNING ROADWORKS

7.1 General

Road Authorities should take account of applicable codes and road design standards when designing new roads. Carriers have rights to locate their infrastructure in road reserves and Road Authorities should work together with Carriers to make provision for telecommunications infrastructure when planning and designing new roads or improving existing roads. For example, it is desirable that nature strips are wide enough to accommodate all types of utility infrastructure and allow safe access to that infrastructure.

The same principles should apply when Road Authorities are approving plans from consultants and developers for new residential and commercial developments.

7.2 Positioning

When deciding on the positioning of new road infrastructure or when considering modifications to existing road infrastructure, Road Authorities should consult with Carriers to consider whether the proposed roadworks may:

- (a) affect the safety of Carrier workers engaged in installing and/or maintaining facilities;
- (b) increase the risk of existing Carrier facilities being accidentally damaged. For example due to vibration resulting from road traffic or damage resulting from roots associated with planting trees in the vicinity of underground Carrier facilities, in which case root barriers may need to be installed to minimise any impacts;
- (c) require alteration to existing Carrier facilities, or protection of those facilities; and/or
- (d) affect any planned Carrier maintenance works and/or significant Carrier infrastructure installations or upgrades.

7.3 Changes to road level or profile

Road Authorities should consult with Carriers before changing the level or profile of a road, so as to minimise the risk of Carrier facilities becoming non-compliant with any existing legislation or standards or where the works may affect the functionality of Carrier facilities.

Examples are an increase in the crossfall of a road which may lead to taller vehicles contacting poles that are close to the edge of the road, and an asphalt overlay which reduces the height clearance to overhead wires or covers surface fittings such as manhole lids.

8 ROAD AUTHORITY WORKS AFFECTING TELECOMMUNICATIONS FACILITIES

8.1 Factors to be considered

Where the works of a Road Authority will affect Carrier facilities, the following should be considered in discussion between the parties:

- (a) the economics of altering Carrier facilities should compare relocation with modifying and/or protecting the facilities in their present location, taking into account the waste of resources incurred in relocating the facilities;
- (b) the availability of alternative locations;
- (c) opportunities to modify the design of the proposed roadworks;
- (d) opportunities to avoid delays during the construction of the road project;
- (e) opportunities to undertake joint trenching;
- (f) opportunities to avoid disruption to Carrier services; and
- (g) opportunities for programming contractors/labour forces of the respective parties to synchronise efforts and reduce costs

Some examples of how Carrier facilities have been protected in conjunction with roadworks are shown in the drawing 'Examples of protecting Carrier's assets on road projects' – refer to Appendix B.

8.2 Use of the Dial Before You Dig service

Carriers should be members of the Dial Before You Dig service and therefore, before undertaking road works involving excavation or placing of filling, the Road Authority, or its contractor should contact the Dial Before You Dig service to determine the location of Carrier's underground facilities. Where applicable, the Road Authority should also refer to any relevant Utility Providers Code of Practice, dealing with desirable positioning of facilities.

8.3 Risk management plans

Road authorities should consider potential hazards, and may develop a risk management plan when proposing to carry out roadworks that could affect Carrier facilities. The risk management plan should be prepared in accordance with the same requirements as for Carriers, which are detailed in Section 9 of these guidelines. The major risks to be managed will be accidental damage to Carrier facilities during the roadworks and interruption to the effective and efficient delivery of Carrier services. Risk management plans, where applicable, should be prepared on a project by project basis and should be developed as early as practicable in the life of the project. Plans should be developed in accordance with the approach outlined in the current version of AS/NZS 4360 'Risk Management'.

8.4 Identifying the location of underground Carrier facilities

Carriers have a responsibility to keep records of the location of their facilities. Consequently, where underground telecommunications facilities are identified within the limits of proposed roadworks, and when requested by the Road Authority, the Carrier will confirm the information concerning the location of its facilities. The Road Authority and the Carrier have a joint responsibility to avoid accidental damage to underground telecommunication facilities. The responsibilities of each party may be set out in an agreement on a case by case basis, and should include aspects such as physical proving of facilities, placement of above-ground markers, temporary protection measures etc.

8.5 Redundant telecommunications infrastructure

Carriers remain responsible for any of their telecommunications infrastructure that becomes redundant and should continue to keep records of the location of such infrastructure. In accordance with Schedule 3 of the Telecommunications Act, Carriers may be required to remove overhead lines from poles which have also been used to support other non-communications cables, if the non-communications cables are permanently removed.

8.6 Assessing the potential impact of roadworks on Carrier facilities

Where proposed roadworks may have a significant impact on telecommunications facilities (e.g. by adversely affecting network functionality and or inhibiting access to or maintenance of those facilities), then the Road Authority should provide all relevant information about its proposal to the Carrier(s) concerned. This will enable the affected Carrier(s) to make a preliminary assessment of the impact on their facilities, including whether or not any alterations (including relocation) are required. The Carrier(s) should advise the Road Authority of any issues that need to be taken into account, including approximate costings, if possible of any required alteration work.

8.7 Process for dealing with alterations to Carrier facilities due to roadworks

When a Carrier and Road Authority agree that telecommunications facilities need to be altered due to roadworks, then an in principle agreement regarding responsibilities for the alterations should be reached between the Road Authority and the Carrier through consultation on design, costs and timing of the proposed works. When the Road Authority undertakes to pay for its relevant costs of the alterations, then:

- (a) the Road Authority will formally request an assessment and quote from the relevant Carrier(s) for the alterations;
- (b) the Carrier will provide the Road Authority with estimates of time and cost for all practical options for carrying out the alterations;

- (c) when the Road Authority and Carrier have agreed on the preferred option for the alterations, the Carrier will provide the Road Authority with an accurate estimate of time and cost to carry out the alterations, to assist the Road Authority with programming and budgeting for the roadworks;
- (d) formal agreement regarding payment for alterations should be reached between the Road Authority and Carrier based on the accurate estimate provided by the Carrier. The Carrier should be responsible for any costs associated with upgrading or augmentation of existing facilities; and
- (e) the alteration work will be priced in a competitive environment. The Carrier will provide a list of all industry specialists it considers eligible to tender for the alteration work. On larger projects, the alteration work may be divided into several parts and tendered separately.

The above process is designed to deliver the minimum total cost for the alterations and help minimise the risk of any adverse, unexpected changes to the cost and/or timing of the alteration works.

8.8 Carrier considerations

When a Carrier and a Road Authority agree that telecommunications facilities need to be altered due to roadworks, the Carrier should use its best endeavours to ensure the alteration work is carried out in a way that minimises any delays to the roadworks and maximises protection of the Carrier's assets.

8.9 Damage to Carrier facilities

If there is existing damage to any Carrier asset, the Road Authority should advise the Carrier before works commence, or as soon as the damage becomes evident. The Road Authority, in consultation with the Carrier, will promptly arrange for repair of any damage caused to Carrier assets during the course of carrying out its works.

8.10 Contractors

Generally, Road Authorities are responsible for the works carried out by their nominated contractors. Road Authorities should arrange adequate surveillance of their contractor's activities whilst working in road reserves, and are also responsible for ensuring that their contractors follow the requirements of all relevant legislation, Government policy, industry standards and codes of practice as well as any conditions prescribed by the Carrier.

8.11 Consultation prior to works commencing

Road Authorities should consult with those likely to be significantly affected by their proposed works, where this is practicable. Examples of where consultation may be appropriate include:

- (a) abutting landowners' access being denied;

- (b) access to businesses being interrupted;
- (c) noise and/or dust causing a significant nuisance to residents, businesses, community facilities and/or outdoor dining establishments;
- (d) access for people with disabilities being denied at any time during the course of the works; and
- (e) proposed removal of street trees, as part of the works.

8.12 Works to be in accordance with plans and specifications

Road Authorities should install their infrastructure in accordance with:

- (a) the plans and specifications that formed the basis of any consent or agreement (where required); and
- (b) the information provided to residents and others that are likely to be affected by the works (where appropriate).

If the need for significant changes or major variations to the plans and specifications arises during the course of the works, these should be negotiated with any affected stakeholders in a manner that minimises any delays to the works.

9 TELECOMMUNICATIONS WORKS AFFECTING ROADS

9.1 Advice of proposed works

When a Carrier proposes to carry out works in a road reserve, it should provide as much advance notice as possible to the Road Authority. For maintenance works and installation of low impact facilities, at least ten business days notice is required under the Telecommunications Act. It is important that Carriers provide sufficient detail in their notice, to enable Road Authorities to provide a timely response.

9.2 Agreements

Carriers should make reasonable efforts to enter into an agreement with a Road Authority that makes provision for the manner in which the Carrier will engage in any activities authorised under the Telecommunications Act, that are likely to affect the operations of the Road Authority. Carriers should also make every reasonable effort to co-locate facilities in road reserves.

9.3 Installing new cables in existing conduits

In the case where a Carrier advises a Road Authority of its intention to install a new cable in existing conduits and the Road Authority is committed to future roadworks that will require the removal or relocation of Carrier facilities, the Road Authority may request the Carrier to consider alternatives. This could include leaving facilities in situ, by implementing suitable protection measures at the appropriate time, or by reaching agreement on the responsibilities for cost of relocation at some future time.

9.4 Installing new conduits

In the case where a Carrier notifies a Road Authority of its intention to install buried cable or new conduits, either on a new or existing route and the Road Authority advises that it is committed to future roadworks at that location, there will need to be detailed consideration by both the Carrier and the Road Authority to determine the best course of action. One of the following solutions will generally be appropriate and should be agreed to by the parties:

- (a) The Carrier chooses a completely different route.
- (b) If the Road Authority does not need to acquire land to carry out the roadworks, the Road Authority will supply the Carrier limits as to line and depth outside which it is confident there will be no interference, and the Carrier will lay to these limits if reasonable and practicable. This route may be within the existing road reserve or on adjacent private property.
- (c) Where the route indicated under Clause 9.4(b) is on private property and the extent of any future necessary land acquisition is known, the Road Authority, provided it can conveniently program the necessary funds, may initiate action to acquire the property. Even if the Road

Authority is not in a position to acquire the property at that stage, Carriers may consider co-operating by installing the facilities in the indicated location. Some Road Authorities may consider assisting Carriers facilitate negotiations with the landowner(s) for such a solution. This solution would not be appropriate where there are buildings or other significant physical obstructions in the path of the proposed route. An agreement should be developed between the Road Authority and the Carrier for each of these cases. The terms of such an agreement would include responsibility for any future relocation of facilities if roadworks did not proceed.

- (d) After considering the projected timetable of events such as land acquisition, removal of obstacles and road construction, it may be appropriate for Carriers to install the facilities now, in the presently convenient location, to serve until the planned roadworks are under construction. Under these circumstances, Carriers would plan the size of the facilities to provide adequate service for the interim period, until the final installation is possible. Again, an agreement should be developed between the Road Authority and the Carrier for each of these cases. The terms of such an agreement would include responsibility for costs of future relocation of facilities when roadworks commence and responsibility for any future costs to the Carrier, if roadworks did not proceed.
- (e) At locations of restricted width, where it is clear there is a once only opportunity to install an underground cable and it is likely that other Carriers will want to also install cables in the future, the Carrier may install a conduit capable of accommodating sub ducts.

9.5 Damage to Road Authority infrastructure

Carriers will meet all reasonable requests of the Road Authority intended to preserve the condition of the road and provide an acceptable level of safety and efficiency for road users and workers during the course of the works and for all future maintenance of facilities. If there is existing damage to any Road Authority asset, the Carrier should advise the Road Authority before works commence, or as soon as the damage becomes evident. The Carrier, in consultation with the Road Authority, will promptly arrange for repair of any damage caused to Road Authority assets during the course of carrying out its works.

9.6 Risk management plans

Carriers should consider potential hazards and may prepare a risk management plan to identify risk mitigation measures they intend to adopt when carrying out works involving telecommunications infrastructure in road reserves. The plan should be developed in accordance with the approach outlined in the current version of AS/NZS 4360 'Risk Management'. The major risk areas to be managed are:

- (a) safety of all users of the road reserve, the Carrier's workers and the public;
- (b) the integrity of road infrastructure;

- (c) traffic disruption; and
- (d) any adverse effects on the future development of both road and telecommunications infrastructure.

The risk management plan should contain:

- (i) an analysis of each of the above risk areas to determine the inherent risk rating;
- (ii) an evaluation of those risk areas to determine whether the risk ratings are at an acceptably low level or whether they are high enough to warrant some treatment;
- (iii) for the risks that warrant some treatment, the proposed mitigation measures to bring the risk down to an acceptably low level;
- (iv) details of the positions of the persons responsible for the operation of the risk management plan;
- (v) details of the training to be provided to staff and contractors to ensure the risk management plan is followed; and
- (vi) the process for monitoring and review of the plan to help identify improvements and to ensure the plan remains up to date.

Risk management plans, where applicable, should be prepared on a project by project basis and should be developed as early as practicable in the life of the project.

9.7 Traffic management

Carriers will be responsible for the safety of traffic and may be required to prepare a traffic management plan for discussion and agreement with the Road Authority. Traffic management measures will be at least in accordance with the current Australian Standard, with any reasonable additional provisions required by the Road Authority. Note that legislation in some States and Territories refers to the use of a Code of Practice for traffic management when works are being carried out on roads, and the guidance provided by such Codes of Practice should be followed e.g. Traffic Management for Works on Roads – Code of Practice in Western Australia and the Code of Practice for Worksite Safety – Traffic Management in Victoria. Road traffic will not be diverted to sidetracks or detours without the written agreement of the Road Authority, and the agreement of the Police and local council or other statutory body, as may be necessary.

9.8 Timing of Carrier works

Carriers should consider timing of installation works in consultation with Road Authorities. At times this may mean scheduling of work at night. Where servicing and maintenance of Carrier facilities from the road carriageways cannot reasonably be avoided, the work should be done in such a way as to minimise obstruction of the carriageway. It is recognised that, with emergency procedures and urgent fault restoration work relating to telecommunications services, it may be necessary to

commence operations immediately. In other cases where the safety and flow of traffic would be adversely affected, works should be deferred to a period of off-peak traffic conditions.

9.9 Consultation prior to works commencing

Carriers should consult with those likely to be significantly affected by their proposed works, where this is practicable. Examples of where consultation may be appropriate include:

- (a) abutting landowners' access being denied;
- (b) access to businesses being interrupted;
- (c) noise and/or dust causing a significant nuisance to residents, businesses, community facilities and/or outdoor dining establishments;
- (d) access for people with disabilities being denied at any time during the course of the works; and
- (e) proposed removal of street trees, as part of the works.

9.10 Works to be in accordance with plans and specifications

Carriers should install their infrastructure in accordance with:

- (a) the plans and specifications that formed the basis of any consent or agreement (where required); and
- (b) the information provided to residents and others that are likely to be affected by the works (where appropriate).

If the need for significant changes or major variations to the plans and specifications arises during the course of the works, these should be negotiated with any affected stakeholders in a manner that minimises any delays to the works.

9.11 Methods of installing underground Carrier facilities

- (a) Surfaced road pavements

The opening of surfaced road pavements should be avoided by Carriers, as far as practicable, by the use of thrust boring or similar methods, particularly on:

- (i) roads carrying a high volume of traffic, and
- (ii) roads surfaced with concrete or with asphalt.

In circumstances where site conditions or other factors necessitate it, open trenching may be used by agreement after due consideration of possible alternative methods.

(b) Unsealed roads

In the case of unsealed roads, if the Road Authority considers that crossing by mole plough or open trenching is not appropriate, the method to be used should be determined by discussion and agreement after considering the location, condition and usage of the road.

9.12 Reinstatement works

Carriers should carry out reinstatement works on road reserves in a timely manner. On busy urban roads this may mean permanent reinstatement of any disturbed pavement at the completion of each day's work. On the verge of lightly trafficked rural roads, it may be agreed that reinstatement can be completed, say within two weeks. Each project needs individual consideration and the timing of reinstatement works should be in line with any relevant Utility Provider Code of Practice or as agreed with the Road Authority before the project commences.

Further guidance on requirements for reinstatement can be found in the current version of Clause 9.4.2 of ACIF C524 'External Telecommunications Networks' Industry Code.

9.13 Contractors

Generally, Carriers are responsible for the works carried out by their nominated contractors. Carriers should arrange adequate surveillance of their contractor's activities whilst working in road reserves, and are responsible for ensuring that their contractors follow the requirements of all relevant legislation, Government policy, industry standards and codes of practice as well as any conditions prescribed by the Road Authority.

9.14 Co-ordination of Road Authority and Carrier works

Where it is possible to achieve overall benefit by coordinating the works of the Road Authority and the Carrier, so that some parts of the works are carried out jointly, this should be arranged. Examples are:

- (a) Where a cable is not to be relocated but is to be protected in its existing location, the excavation and exposure of the cable may be undertaken by the Carrier, and the placing of concrete or other agreed protection carried out by the Road Authority.
- (b) The excavation of a trench may be carried out by a Road Authority on a new alignment to accommodate relocated Carrier facilities.
- (c) Conduits may be installed under a road by a Road Authority before laying the road pavement, to facilitate future accommodation of Carrier cables.

10 SHARING INFORMATION

10.1 Information regarding Carrier infrastructure

Carriers should record information about the location, depth and nature of their infrastructure in road reserves. Digital as-built records are the preferred format. The location information for underground facilities should be recorded as Australian Map Grid (AMG) co-ordinates, or equivalent together with the best information available on vertical location. If this recording process is not suitable, both parties should agree on alternative standards for preparing such records.

Records should be based on as-constructed details, as these may vary from the design drawings. It is recognised that some past records may not be complete and that some may not be accurate.

Carriers and road authorities should share all available information on the location of underground infrastructure with those intending to carry out excavation works within road reserves. The use of the 'Dial Before You Dig' referral service is recommended as a first step for those intending to carry out excavation works within road reserves.

If a Carrier is not a member of 'Dial Before You Dig' and it has underground infrastructure in road reserves, it should advise each relevant road authority how it proposes to make information available on the location of its infrastructure to those intending to carry out excavation works within those road reserves.

It may be necessary to physically prove the location and alignment of underground assets, where as-constructed plans of sufficient accuracy are not available.

10.2 Information regarding Road Authority infrastructure

Each Road Authority is responsible for keeping and providing information about the location of its assets, including underground assets such as stormwater drainage pipes, traffic signal cables etc. Digital as-built records are the preferred format. The location information for underground facilities should be recorded as Australian Map Grid (AMG) co-ordinates, or equivalent together with the best information available on vertical location. If this recording process is not suitable, both parties should agree on alternative standards for preparing such records.

Records should be based on as-constructed details, as these may vary from the design drawings. It is recognised that some past records may not be complete and that some may not be accurate.

It may be necessary to physically prove the location and alignment of underground assets, where as-constructed plans of sufficient accuracy are not available.

APPENDIX

A TYPICAL CONTENTS OF AN AGREEMENT

One of the purposes of bi-lateral agreements is to identify variations to the requirements of the Acts that apply to works being carried out in road reserves. The typical contents of this type of bi-lateral agreement could be as follows:

1. Making of Agreement

Agreement is made under Clause of the Act

Date of commencement of agreement

- Agreement may be varied by mutual consent of both parties

2. Parties to the Agreement

This agreement is between Road Authority [Name] and Carrier [Name]

Responsibilities and rights of the parties

3. Scope of the Agreement

Applies to the proposed works nominated

Agreement must be consistent with the relevant Acts, relevant regulations and Codes of Practice.

Nothing in the Agreement should affect obligations or the rights of either party under their respective Acts and regulations.

Duration of the Agreement

Agreement does not override obligations under other Acts, Codes or applicable Commonwealth, State and local laws

4. Process for conduct of works

For each type of works covered by the agreement, need to specify:

Agreed management systems and plans that are capable of being audited to manage the risk of works (traffic management, consultation, accredited management systems, trained staff and contractors, etc)

Term of agreement giving an exemption or variation

Dealing with variations to proposed works

5. Monitoring and Review

Regular meetings between Road Authority and Carrier to review how things are working

Dealing with breaches of agreement terms

6. Termination

Termination provisions if either party not satisfied

Process for termination of agreement

7. Signing of Agreement

Signing by authorised officers of the respective parties

Date of agreement

PARTICIPANTS

The Working Committee responsible for the revisions made to this Guideline consisted of the following organisations and their representatives:

Organisation	Membership	Representative
CDK Consulting	Non-voting	Colin Kosky
Main Roads QLD	Non-voting	Paul Harris
Main Roads QLD	Voting	Mike Nenes
Main Roads WA	Voting	David Brown
Nextgen Networks	Non-voting	Ian Row
Optus	Voting	Don Blue
PowerTel	Voting	Vince Mamo
RTA NSW	Non-voting	Kevin Burke
RTA NSW	Non-voting	David Shatford
Telstra	Voting	Adam Hammang
VicRoads	Voting	Alan Collins

Mike Johns of Communications Alliance chaired this Working Committee and provided project management support. Colin Kosky provided editorial support.

NOTES

Communications Alliance was formed in 2006 to provide a unified voice for the Australian communications industry and to lead it into the next generation of converging networks, technologies and services.

In pursuing its goals, Communications Alliance offers a forum for the industry to make coherent and constructive contributions to policy development and debate.

Communications Alliance seeks to facilitate open, effective and ethical competition between service providers while ensuring efficient, safe operation of networks, the provision of innovative services and the enhancement of consumer outcomes.

It is committed to the achievement of the policy objective of the *Telecommunications Act 1997* - the greatest practicable use of industry self-regulation without imposing undue financial and administrative burdens on industry.



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**COMMUNICATIONS
ALLIANCE LTD**

Level 9
32 Walker Street
North Sydney
NSW 2060 Australia

Correspondance
PO Box 444
Milsons Point
NSW 1565

T 61 2 9959 9111
F 61 2 9954 6136
TTY 61 2 9923 1911
E info@commsalliance.com.au
www.commsalliance.com.au
ABN 56 078 026 507

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