

CODE OF PRACTICE

for

UTILITY OPERATORS' ACCESS TO ROAD CORRIDORS

Version 1.0 February 2017



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NOTE

This “Code of Practice for Utility Operators Access to the Road Corridor” Document has been in existence since August 2015 and went through formal month trial application as a working document, signed by the Chief Executives of Fiji Electricity Authority (FEA), Fiji Roads Authority (FRA), Telecom Fiji Limited (TFL) and Water Authority Fiji (WAF).

All parties provided written feedback during this working trial period to the Fiji Roads Authority on its effectiveness and suggested edits to make the application and use of this Code more effective for all parties have been included herein.

This document is presented for discussion and agreement at the Project Coordination and Planning Committee (PCPC).

Upon approval of the PCPC members this Code will be submitted for cabinet endorsement by Government for formal legislation.

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Definitions

Within the context of this Code, the following terms mean:

Amenity Areas

Areas that are essentially of a decorative nature, where streetscape and pavement are of high quality.

Applicant

The Utility Operator (or its agent or 'other' applicant) applying for access to the Road Corridor.

Arterial Road

A Road that provides interconnections between major sectors of a large area linked with external areas and distributes Traffic from major intercity links. Arterial Roads have a dominant through-vehicular movement and carry the major public transport routes.

Berm

The strip of land between the property boundary and the edge of the Carriageway, whether that is defined by the edge of the seal or dish channel.

Business or Commercial Area

Any area of land where the dominant activity includes at least one of the following activities: retailing, offices, business and financial services, manufacturing, warehousing, factory shops and restaurants.

Carriageway

The portion of the Road primarily for the use of travelling vehicles, including the sealed Shoulders.

Collector Road

A Road that provides circulation in local areas and links to Arterial Roads. Collector Roads link land uses in all area types and provide access for all modes of transport, including public transport.

Congested Corridors

Areas where little or no space is available in the Lay position.

Contractor

Any contracted agent that undertakes Work in the Corridor on behalf of the Utility Operator or FRA.

Corridor Access Request or CAR

An application by a Utility Operator to carry out Works in the Road Corridor.

Emergency Works

Works that require an immediate response to restore the integrity of the Utility Structure or secure the situation for the safety of the Public and relates to:

- restoration of supply following an unplanned outage or interruption of supply;
- rectification of a dangerous situation including support requested by an emergency service; or
- unplanned events that have a significant impact on a Road, a Railway, a bridge, public health, public safety or the security of supply to a network.

Existing Structures

Street furniture and other Utility Structures in or adjacent to the Work Site that are required to be considered as part of the Works.

Footpath

Areas of Road reserve set aside for, or formed specifically for, pedestrian use.

Fiji Roads Authority or FRA

The Authority established by Decree that operates and maintains the road network, allocates funds for land transport activities and regulates access to land transport networks.

Greenfields

Areas where new Roads are being constructed (generally areas of new subdivision, where alignment of Utility Structures is primarily based on NZS 4404: 2010, Land Development and Subdivision Infrastructure, or on FRA requirements).

Lay Position of Utility Structures

The position and alignment of Utility Structures within the Road Corridor.

Local Conditions

Means Reasonable Conditions that are within the meaning set out in Section 4.5.3 of this Code.

Local Road

Any Road in a non-residential area that does not meet the definition of Main Road.

Main Road

All Roads classified as Arterial, Collector or Roads with high Traffic flows as defined by the FRA.

Major Works

Means Utility Operator maintenance or construction Work in, on, along, over, across or under the Road Corridor, which includes Works undertaken in any of the following situations:

- A Trench extending more than 20m along the Road;
- A traffic lane needing to be closed on a Main Road;
- A Road closed for more than two minutes during peak Traffic, or business hours in Central Business Districts;
- Work in an Arterial or Collector Road (refer to FRA Road Hierarchy);
- Work affecting metered parking or other restricted parking areas for more than two hours during normal business hours;
- Work affecting a Road Structure such as a bridge, tunnel, or retaining wall;
- Work needing to be done outside normal hours of work;
- Work restricting property access for more than ten minutes for business or one hour for residential;
- Diverting a footpath for more than eight hours;
- A financial contribution is sought from the FRA, such as towards the reinstatement of the Road surface.

Minor Works

Utility Structure maintenance or construction work in, on, along, over, across or under the Road that has lower impacts than that for Major Works.

Pedestals

The smaller junction units used by Utility Operators containing customer connections.

Planned Works

Works that Utility Operators or FRAs have scheduled in their annual or long-term capital works programs or have specifically identified as being required in the next ten years.

Preliminary Notice

Means the preliminary notice issued in respect of Works pursuant to Section 4.2 Preliminary Notification has a corresponding meaning.

Project Works

Major Works in, on, along, over, across or under the Road that exceeds or is expected to exceed 28 days from commencement to final reinstatement.

Public

Any person other than the Parties bound by this Code.

Road Corridor

Includes Roads as defined above and includes all land from boundary to boundary (including the Berm and Carriageway). In the absence of legal boundary survey information the road corridor shall be that

area which is visibly maintained and/or is not otherwise developed and therefore reasonable to assume is not private property, and typically not greater than 15m from the centerline of the road.

Road Structure

Road Structures means all bridges, culverts, drains, ferries, fords, signs, signals, barriers, gates, walls, buildings or other structures forming or intended by the territorial authority or controlling agency to form part of the Road, or land on which the Road is constructed.

Shoulder

The sealed and unsealed portion of the Road formation beyond the traffic lanes that is contiguous and flush with the surface of the pavement.

Special Conditions

Special Conditions are Reasonable Conditions that are within the meaning set out in Section 4.5.3 of this Code.

Special Paving Areas

Areas of the Road Corridors that are essentially of a decorative or special purpose nature and have been constructed and maintained to a higher standard. Such areas are to be identified by the FRA.

Traffic Management Plan or TMP

An approved site-specific plan, which addresses the management of movement of vehicles, cyclists and pedestrians through or past the Work Site and the safety needs of both the Public, the Contractors and (for Railway Corridors) persons who access the Railway Land. For Road Corridors, the TMP must be in accordance with the Code of Practice for Temporary Traffic Management.

Trench

Any excavation within a Road Corridor for the purpose of maintaining, locating, or installing Utility Structure.

Utility Operator

(a) in relation to electricity infrastructure, the Fiji Electricity Authority as defined under the Electricity Act (Cap 180) 1985;

(b) in relation to telecommunications infrastructure, a Licensee under the Telecommunications Promulgation Act 2009

(c) in relation to water and wastewater infrastructure, the Water Authority of Fiji as defined under the Water Authority Promulgation 2007.

Utility Structure

Any tower, pole, cabinet, post, pipes, cables, chambers, drains, street furniture assets, or other structure lawfully upon or in or over the Road Corridor; and includes any equipment that must be removed with the Utility Structure if the Utility Structure is removed; but does not include:

(a) any part of a bridge or culvert;

(b) any fence, gate, or cattle stop

(c) anything provided for the assistance or control of Traffic; and

(d) any Utility Structure that was erected when the land was not a Road.

Warranty

A guarantee or promise given by one Party to another stating that a product or service is free from defects and that the warranting Party will, without charge, repair or replace defective Works within a given period.

Work Site

Any one area of Work being carried out in, on, along, over, across or under the Road Corridor pursuant to a WAP and as approved by the FRA.

Working Day

The definition of Working Day is Monday to Friday inclusive, excluding public holidays.

Works Access Permit or WAP

A written permission from the FRA to enable Works on a Road Corridor to proceed.

Works Completion Notice or WCN

A written acknowledgement that the Work has been satisfactorily completed.

Abbreviations Used

CAR	Corridor Access Request
CoPTTM	Code of Practice for Temporary Traffic Management [FRA document]
km/h	kilometres per hour
m	metre
mm	millimetre
MOTSAM	Manual of Traffic Signs and Markings [FRA document]
TMP	Traffic Management Plan
WAP	Works Access Permit
WCN	Works Completion Notice
FEA	Fiji Electricity Authority
TFL	Telecom Fiji Limited
WAF	Water Authority Fiji

1 Introduction

1.1 Scope

The efficient co-ordination of street works is an important aspect of road management, benefiting the road users, the FRA and Utility Operators alike. This Code of Practice sets out to define mutually agreed objectives and requirements aligned with a coordinated approach between the FRA and Utility Operators:

This Code sets out the processes and procedures for:

- Utility Operators or 'other' applicants to exercise their right of access to the Road Corridor for the placement, maintenance, improvement and removal of Utility Structures;
- The FRA to exercise its right to apply Reasonable Conditions on Utility Operators working in the Road Corridor.
- Regular meetings to share information, discuss and plan activities including mandatory attendance and reporting to the Project Coordination and Planning Committee.

1.2 Legal Framework

1.2.1 Legislative Scope of Code

The purpose of this Code is to enable access by Utility Operators and 'other' applicants to Road Corridors to be managed in a way that:

- a) maximises the benefit to the Public while ensuring that all Utility Operators are treated fairly;
- b) ensures that disruptions to Roads caused by Work by Utility Operators are kept to a minimum, while maintaining safety; and
- c) protects the structure of the road and the Utility Structures within it or on it.

This Code is intended to form the basis of future mandatory requirements and supporting guidance to assist Utility Operators, 'other' applicants and the FRA in exercising these rights. The Code processes do not over-ride either party's obligations to comply with other legislative requirements.

1.3 General Principles

All Parties must apply this Code within the context of the following principles:

1. **Working Together:** Each Party will work together and cooperate to ensure that where Utility Operators have a right of access, that right is fairly balanced against the FRA's right to set Reasonable Conditions for Work,
2. **Consistency and Efficiency** the applications process is streamlined and delay is minimised. Consistent procedures will be applied that enable the Parties to plan and work cost-effectively while preventing avoidable damage to Road Corridors and Utility Structures and reducing delays and Disputes.
3. **Technical Excellence:** The Parties will foster the adoption of best practice standards, technical excellence and a competent workforce.
4. **Quality:** The Parties will foster the adoption of quality assurance processes and ensure that Work is carried out in a competent and professional manner to ensure that quality outcomes are delivered.
5. **Equity and Fairness:** Each Party will deal with other Parties fairly, honestly, equally, without prejudice or bias, and with due regard for the known intentions of the other Parties.

6. **Respect for others:** All Parties will respect others' assets and property rights when carrying out Works in Road Corridors. All Parties have a responsibility to preserve, promote and balance the diverse values and uses of Road Corridors.
7. **Safety:** All Parties recognise that Road Corridors are dangerous working environments and will work together to enhance Road Corridor safety.
This means that all parties must adhere to three key principles of:
 - the need to **balance** the potentially conflicting interests of road users and Utilities' customers,
 - the importance of **co-operation** and regular communication,
 - an acknowledgement that works programmes and practices may have to be adjusted to meet **joint objectives** and co-ordination provision
8. **Causer Pays:** In the event of accidental damage caused by actions of one party to another's infrastructure, the costs for the repairs of such damage to shall be borne by the causer. Reinstatement standard must be to the satisfaction of the asset owner and fit for purpose to match existing condition.
9. **Project Specific Agreements:** From time-to-time site specific Projects will require Agreement arrangements with specific conditions not covered in this Code. All such Agreements (including current existing Agreements) will take precedence over this Code and will seek to align with the Code specifications wherever practicable.
10. **Review Process:** The document will be valid indefinitely and be subject to three-yearly stakeholder reviews and endorsement, with the first review due 12 months after Cabinet adoption of legislation,

2 General Requirements

The purpose of this Section is to outline matters common to all Utility Operators Access to Road Corridors.

2.1 Rules for Interpreting the Code

All Parties must interpret this Code as follows:

1. The following terms are used:
 - a) 'must' indicates minimum and mandatory requirements for the FRA and Utility Operators;
 - b) 'must, where practicable' indicates that the requirement is mandatory unless the Party can demonstrate they are unable to reasonably apply it;
 - c) 'must consider' indicates that the Party must be able to demonstrate that they have considered those requirements;
 - d) 'should' is used to indicate best practice advice which Utility Operators and the FRA must try to comply with in good faith;
 - e) 'may' is used to indicate that the Party or Parties are able to carry out that requirement at their discretion
2. Where the Code specifies that the Parties must agree on requirements, this agreement is to be made in writing.
3. Reference to a Section, Clause or Schedule is a reference to that Section, Clause or Schedule in this Code.
4. A reference to any Act or regulation includes all subsequent Acts and regulations, and includes relevant Acts or regulations in amendment of, or substitution for, the same.
5. A reference to any Standard or other document includes reference to that document as amended, supplemented or replaced from time to time.
6. A reference to any document includes any amendments to that document that are in force, and any document issued in substitution.
7. If this Code conflicts with any legislative provision, the legislative provision will prevail.
8. This Code replaces and supersedes any voluntary code of practice covering Utility Operators' access to and working in the Transport Corridors.
9. This Code is not retrospective. The intention is that this code will be enforceable by legislation in the future. In the interim this Code will be viewed as best practice through the agreement of all parties. It does not require the relocation of assets installed before the date of adoption of this Code by the respective Boards.
10. This Code does not indemnify any Party from any liability that they may incur when carrying out Works in accordance with this Code.
11. Unless otherwise specified, any period of time from a given time, an act or event as prescribed in this Code is determined as being exclusive of that day or the day of the act or event.

2.2 Roles and Responsibilities

2.2.1 All Parties

All Parties must:

- a) undertake their specific responsibilities outlined in this Code;
- b) advise the known location of their own assets in the Road Corridor to Parties planning Works;
- c) take all practicable steps to protect other Parties' assets when working in Road Corridors; and
- d) act in good faith in all their endeavours even if they are in dispute, and resolve matters as quickly as possible.

2.2.2 Fiji Roads Authority

The FRA must:

- a) coordinate, where practicable, Works in the Road Corridor including providing advice on all Parties' Planned Works programmes and leading regional coordination meetings as outlined in 2.5.2;
- b) receive and process notifications of proposed Works in the Road Corridor as outlined in Section 4
- c) Obtaining Corridor Access and Works Approval
- d) set Reasonable Conditions for any Works in the Road Corridor which are consistent with this Code as outlined in Section 4.5; and
- e) ensure and enforce compliance with these Conditions and with this Code.

2.2.3 Utility Operator

The Utility Operator must:

- a) notify the FRA of any Planned Works in the Road Corridor in accordance with this Code, in both a wider planning sense and in relation to specific Works, Sections 2.5 and 4;
- b) comply with this Code and with any Reasonable Conditions set by the FRA in relation to its Works; and
- c) participate as required in liaison meetings, Section 2.5.2.

2.2.4 Compliance by Suppliers and Agents

Each Party is responsible, in respect of this Code, for the competency, actions and omissions of its delegates, agents, consultants, Contractors and employees except to the extent that any Act provides otherwise.

Contracts between Parties and their delegates, agents, consultants, contractors and employees and processes to procure these services are outside the scope of this Code.

2.3 Quality Management

2.3.1 Standard Operating Procedures

Utility Operators should have procedures and processes for ensuring the Works are carried out in accordance with the Code. These must generally include, but not be restricted to:

- a) obtaining the Works Access Permit (WAP) through the Corridor Access Request (CAR) process;
- b) ensuring that the standards of workmanship required by this Code are fulfilled;
- c) providing a Works Completion Notice to the FRA;
- d) producing and implementing a communication strategy for Major Works and Project Works;
- e) notifying affected residents and businesses of the proposed Work
- f) working around other Utility Structures;
- g) operating the Work Site safely;
- h) audit procedures on the Works and resulting records management.

2.3.2 Audit Process

The Utility Operator must:

- a) retain quality management records and make these available to the FRA or other affected Utility Operators on request; and
- b) make allowance for the FRA to undertake independent inspections/audits and carry out any independent conformance testing on the Work Site, to satisfy themselves as to the standard of completion of the Works.

Any audits completed by the FRA do not replace the Utility Operator own audit requirements.

Where audits show that Work is consistently of the appropriate standard, the FRA may limit the extent of audits that are required.

To enable performance evaluation, there may be sharing of audit and quality information amongst FRA and Utility Operators within regions.

2.3.3 Use of Forms and Templates

Utility Operators and FRA must use the forms and templates in;

Schedule A: Forms and

Schedule B: Template for Reasonable Conditions for procedural matters under this Code unless variations are agreed between all affected Parties.

2.4 Health and Safety

Each Party must at all times comply with health and safety legislation and regulation including the Health and Safety at Work Act 1996.

2.5 Coordination

2.5.1 Sharing Planned Works Programmes

1. The FRA must:
 - a) coordinate, where practicable, Works in its Road Corridors; and
 - b) provide information on forward schedules of its Planned Works in the Road Corridor to Utility Operators.
2. Utility Operators must:
 - a) undertake strategic forward planning to identify Planned Works requirements;
 - b) provide information on Planned Works programmes to the FRA;
 - c) provide information on Planned Works programmes to other Utility Operators (subject to requirements to keep certain information confidential); and
 - d) provide available information on redundant Utility Structures or assets on request by the FRA or other Utility Operators.

2.5.2 Participation in Liaison Meetings

1. The FRA must, where practical, facilitate:
 - a) regular liaison meetings with all Parties to improve coordination and planning of activities in the Road Corridor between all Parties;
 - b) strategic high level planning meetings with individual Utility Operators to discuss their annual plans and longer term planning and coordination; and
 - c) operational meetings on the nature and timing of future Works, and to facilitate the coordination of Works.
2. All Parties must disclose information at these meetings in a timely manner, to assist the coordination of Works. Where this information is provided as confidential information to the FRA this confidentiality will be respected.

The primary objective of the liaison meetings is to share information and coordinate Work programmes to minimise disruption and damage during Works. The meetings may be held monthly or bi-monthly, and must be at least twice a year. A person of appropriate authority should represent each Party at the meetings.

Liaison meetings are also an opportunity to discuss matters such as:

- further simplification of processes for Works that do not require opening or breaking up a Road or that are on a low Traffic volume road;
- processes for dealing with emergency situations in Road Corridors;
- matters relating to quality of work and safety (in particular traffic management)
- responses and reporting to the Project Coordination and Planning Committee.

3 Planning for New Assets in the Road Corridor

The requirements in this Section must be read in conjunction with the Principles, Roles and Responsibilities and General Requirements outlined in Sections 1 and 2.

3.1 General Requirements for Location of Utility Structures

Where practicable, Utility Structures must be positioned in the Road Corridor as close as possible to the property boundary; and

- i. in an area designated for, or already used by, Utility Structures approved by the FRA;
- ii. parallel or perpendicular to the Road centreline (to ensure that new Work does not intrude into space that could inhibit future use by others);
- iii. outside the Carriageway (particularly where the operating speed is greater than 60km/h);
- iv. with at least 300mm separation, and ideally with 1m separation, from the kerb and channel or vertical front face of the catch pit, sump or subsoil drainage area, leaving this area free for its land drainage function; and
- v. to maintain the following minimum footpath widths: 1.5m in residential areas and 2.5m in Commercial Areas;

If the Utility Structures cannot be located in accordance with the above requirements, or if the Utility Operator considers another location is optimal, then the Utility Operator must discuss and agree an alternative solution with the FRA.

In identifying the proposed Utility Structure location, a Utility Operator must also consider the following:

- spacing and location in accordance with the statutory and declared operational requirements of Utility Operators and FRA;
- using the preferred lay position, which is the 'back Berm' (where the front Berm is the zone between the kerb and the footpath and the back Berm is the remainder of the area to the property boundary);
- best use of available underground space, such as installing multiple ducts in a vertical configuration where it is practicable and not likely to cause conflict between longitudinal and lateral lines;
- minimising effects on existing above-ground Utility Structures, trees and street furniture;
- not unreasonably inhibiting the free flow of Traffic, including pedestrians, especially on busy Roads (consideration should be given to using less busy Roads);
- placing bulk Utility Structures beneath the Carriageway outside of wheel track alignments in urban areas (to free Berm space for other Utility Structures);
- positioning Utility Structures so that access to maintain and develop the network can be undertaken while minimising the effect on Traffic;
- minimising the number of transverse crossings in the Road Corridor;
- minimising impacts on other Utility Operators and property owners and occupiers;
- coordinating Works with other Parties;
- avoiding Roads with high speeds, Traffic volumes or of other significance to one of the Parties for some reason (more appropriate in a Greenfields situation); and
- the risks of land stability or earth movement, if placing Utility Structures in embankments (specialist technical investigation may be required).

3.2 Specific Requirements for Underground Utility Structures

3.2.1 Location and Design for all Road Corridors

As well as the general requirements in Section 3.1, underground Utility Structures must meet the following requirements:

1. The FRA must, in consultation with owners of any affected Utility Structures, agree and approve the specific location of underground Utility Structures prior to their installation.
2. Underground Utility Structures must be of minimal size to meet functional design requirements.
3. Locations on existing bridges must be adequately designed by the Utility Owner for this additional dead load and connections to suit the existing structure. New bridges built by the FRA will include for provision of any necessary Utility access.
4. Duct colours for the different Utility Structures should be in accordance those shown in Colour Coding System and Minimum Depths for Buried Services in the Road Corridor (Appendix F).

3.2.2 Depth Requirements for Road Corridors

Minimum depths must be in accordance with Colour Coding System and Minimum Depths for Buried Services in the Road Corridor (Appendix F), unless both Parties agree otherwise.

There are many factors that influence the optimal location and depth of a Utility Structure. Proposed locations and depths should be jointly agreed between FRA and the Utility Operators following consideration of such factors as traffic volume/loading, underground environment and the type of assets being laid and associated risks.

Where a temporary arrangement may be required, because of coordination of Works in the Road Corridor, the Parties may form an agreement to locate Utility Structures in a temporary location for an agreed period.

3.2.3 Lids and Chambers in Roads

1. Lids and Service Covers in the Road Corridor must:
 - a) in the Carriageway, be installed with a pedestrian and cyclist friendly non slip surface;
 - b) be positioned outside the wheel path
 - c) be positioned away from any intersection (where they have to be in the Carriageway); and
 - d) be secured to prevent displacement by Traffic in Carriageway areas.
2. Chambers, covers, lids and Structures in the Road Carriageway must:
 - a) be designed to ensure they are capable of sustaining the loadings applied, including allowance for impact factors for dynamic effects due to Traffic; and
 - b) be installed in accordance with the manufacturer's instructions.

Utility Operators and the FRA should develop agreements on the use of adjustable lids in Carriageways, to facilitate future changes in surface level.

Chambers in Footpaths may require special surface treatment to minimise hazards to pedestrians, particularly those that need to be installed at steeper slopes to match the adjoining surface.

3.3 Specific Requirements for Above-Ground Utility Structures in Road Corridors

As well as the general requirements in Section 3.1, Utility Structures must meet the following requirements for above-ground Utility Structures:

3.3.1 Position

1. New installations must be positioned:
 - a) at maximum practicable separation from the Carriageway;
 - b) at suitable spacing to enable practical future maintenance of the Utilities; and
 - c) as close as practicable to the property boundary.
2. The following issues must be considered and balanced in determining the location of above-ground Utility Structures:
 - a) the safety of all road users including workers, pedestrians and cyclists;
 - b) the practicalities of working in the Road in future (for example workers accessing, maintaining or operating above-ground Utility Structures and those maintaining the Road); and
 - c) the impact of the location on Utility Structures and other property owners and occupiers (for example, whether the Work creates an aerial trespass).

For new installations, the intent is to provide the maximum practicable separation from the Carriageway. In some circumstances, a combination of solutions may need to be agreed and employed if, after a risk assessment of the particular site, this distance is not considered to be wide enough.

The preferred position of a Pedestal, cabinet or other Utility Structure is where it will present the lowest safety risk, cause least nuisance or hazard to the Public, adjoining property owners, road maintenance workers, or other legitimate activity within the Road Corridor. Ideally this would be beside fences or boundaries and grouped near other similar Utility Structures but clear of driveways and high maintenance areas.

3.4 Utility Assets on Road Corridor Structures

3.4.1 Planning for New Bridges

Through the provisions of Section 2.5.2 the FRA must, when considering building a new or replacement bridge:

- a) consult and include known (existing or potential) Utility Operators at the planning stage, so that consideration can be given to accommodating Utility Structures in the design; and
- b) provide for the installation of Utility Structures based on Utility Operators' known requirements, where practicable; or
- c) allow Utility Operators to install Utility Structures, where practicable.

3.4.2 Planning Utility Works on Existing Road Corridor Bridges or Structures

When doing any Works on existing Road Corridor structures, all Parties must, where practicable:

- a) recognise any impact of structural maintenance Work on the provision of utility services and the impact of the presence of Utility Structures on the efficiency of the bridge maintenance Work;
- b) must be adequately designed by the Utility Owner for this additional dead load and any connections to suit the existing structure; and
- c) consider the above issue and any cost sharing implications in their Work planning activities.

Utility Operators should take the opportunity during Works planning to consider changes to maximise the remaining space and capacity of the bridge for other Utility Operators.

3.4.3 Locating New Utility Structures on Existing Road Corridor Bridges or Structures

1. The Utility Operator, in consultation with the FRA, must assess the following during design and planning:
 - a) whether there is structural capacity for the additional dead load of the Utility Structures;
 - b) the need to upgrade the existing Road Corridor structure or other facilities as necessary to install their new Utility Structure; and
 - c) the ability to carry out future maintenance on the Utility Structures and any impact this may have on the Road Corridor structure.
2. All Parties must:
 - a) design new installations to maximise use of any remaining space and capacity;
 - b) where practicable, locate Utility Structures on the downstream side of the bridge, away from the working zone that can be required when attending to flood debris during or after a flood event;
 - c) not install Utility Structures carrying flammable gases or liquids inside the boxes of box girder bridges; and
 - d) in the case where significant movement of the bridge is possible due to seismic events, include risk-based solutions to ensure public safety and the integrity of both Road Corridor and Utility Structures.

In general, space for Utility Structures on bridges and Road Corridor structures is constrained. In addition to the above, Utility Operators and the FRA should also follow the guidance in Section 3.5 and 3.6 on sharing space on unused ducts and releasing space where practicable by removing redundant assets. Existing infrastructure must be fully utilised before new infrastructure is added.

3.4.4 Abandoning a Bridge or Road Corridor Structure

Before deciding to demolish or abandon a bridge or Road Corridor structure, the FRA must:

- a) advise all affected Utility Operators of the proposed demolition/abandonment;
- b) allow Utility Operators adequate time to implement their own alternative arrangements for support of their Utility Structures, whether on a replacement bridge or Road Corridor structure (if any) or otherwise; and
- c) all costs associated with any FRA decision to abandon a bridge and affect the Utility located thereupon will be the responsibility of the FRA.

3.5 Future Proofing

1. On request by the FRA, the Utility Operator must, where practicable and reasonable, allow in their Works planning for the installation of additional ducts for any Party during Trenching.
2. Unless otherwise agreed, the FRA must cover the cost of these future proofing Works carried out by the Utility Operator for the benefit of other Parties.

For a variety of reasons, Utility Operators may not be able to bring forward or delay planned Works in order to carry them out at the same time as other planned Works in the Corridor. However, all Parties should consider opportunities to have ducts installed during other Parties' Works, to enable future installation of new assets with minimal Road disruption.

The Parties should only install ducts with a stated specific purpose/s and if they are not reasonably used for that purpose within a reasonable timeframe, then the provisions of Section 3.6 may be applied.

Utility Operators are encouraged to develop agreements with other Utility Operators on Trench sharing and use of spare standby capacity assets.

For avoidance of doubt, the Party that pays for the cost of the additional ducts is the owner of the additional ducts.

3.6 Use of Redundant or Abandoned Utility Structures

When a Utility Operator determines that its Utility Structures are redundant or abandoned in a Congested Corridor location where another Party is carrying out Works, then that Utility Operator must consider:

- a) the removal of its Utility Structures, at its own cost; or
- b) allowing other Parties to share, remove or recycle those Utility Structures.

Congested Road Corridors: In a congested Corridor where space for Utility Structures is at a premium, redundant, abandoned or dormant Utility Structures may become an impediment to new Utility Structures Work. While the Utility Operator will decide whether infrastructure is unused or abandoned and should be removed or re-used, the Utility Operator should act reasonably in making that decision and consider the wider interest of the community to maximise the use of the Road Corridor.

Where a Party has unused Utility Structure with no stated purpose in a congested Road Corridor, and it is practicable for other Parties to better utilise these Utility Structures and free up alternate lay positions for future Utility Structures, the unused Utility Structures should be made available to another Party for their use. The Utility Structures remain as assets of the Party who installed them until such time as the Utility Operator transfers ownership.

Uncongested Road Corridors: In an uncongested Road Corridor, removal of redundant or abandoned Utility Structures could cause unnecessary disruption. Where such Utility Structures do not impede installation of new Utility Structures, there is no expectation for Parties to consider removing Utility Structures. However a Utility Operator is encouraged to consider removal of its own redundant Utility Structures where they are themselves working in the location.

The above provisions do not prevent any Party exercising any right to have Utility Structures moved.

3.7 Arrangements between Utility Operators

3.7.1 Work Affecting Other Utility Structures

1. When a Utility Operator does Work that will affect, or is likely to affect, another Utility Operator's Utility Structures, they must:
 - a) give notice to and obtain the general requirements of that Utility Operator for working in proximity to their Utility Structures; and
 - b) confirm on the CAR that they have undertaken the steps outlined in Clause (a).
2. Where a Utility Operator wishes to alter (permanently or temporarily) the position of another Utility Operator's Utility Structures, the Parties must come to an arrangement to ensure all Parties' requirements are accommodated, in the spirit of the principles of this Code (see also Section 7).
3. Either Utility Operator may contact the FRA to discuss whether any conditions may be applicable to the Works. The FRA must consider this request for discussion in accordance with Section 4.5.
4. If either Utility Operator is unhappy with the outcome of the application of this section they may refer the matter, in writing stating the reasons for dis-satisfaction, to the boards of the affected parties for resolution. A copy of the any dis-satisfaction notice must also be provided to the FRA within 5 working days. The parties must also inform the FRA of the outcome following the resolution of the issue.

3.7.2 Work Unexpectedly Affects Other Utility Structures

1. Work that will affect, or is likely to affect, another Utility Operator's Utility Structures should normally be identified in the planning stages and the Parties comply with Section 3.7.1.
2. If during the course of Work it becomes apparent for the first time that the Work will affect, or is likely to affect, another Utility Operator's Utility Structures, the affecting Utility Operator must immediately give notice to, and obtain the general requirements of, the affected Utility Operator for working in proximity to their Utility Structures. The Parties must try to come to an arrangement to ensure all Parties' requirements are accommodated, in the spirit of the principles of this Code.
3. The FRA must be informed by the Utility Operator as soon as a situation under Section 3.7.2 is identified. This should include a discussion of the impact on the approved Works and timetable.

4. If agreement cannot be reached either party may refer the matter, in writing stating the reasons for dis-satisfaction, to the boards of the affected parties for resolution. A copy of the any dis-satisfaction notice must also be provided to the FRA within 5 working days. The parties must also inform the FRA of the outcome following the resolution of the issue

4 Obtaining Corridor Access and Works Approval

The requirements in this Section must be read in conjunction with the Principles, Rules, Roles and Responsibilities and General Requirements outlined in Sections 1 and 2.

4.1 Introduction

4.1.1 Corridor Access Request (CAR) Requirements

The CAR process is illustrated in Corridor Access Request (CAR) Requirements for Road Corridors for Road Corridors together with the CAR form.

4.2 Preliminary Notification and Liaison

4.2.1 Early Consultation over Lay Positions of Utility Structures

The FRA must co-ordinate Lay Positions of new Utility Structures within the Road Corridor. To do this prior notification from the Utility Owner is required.

The Utility Operator must consult the FRA early in the process (generally before the design phase – ref Form A.1 Schedule A) when a Utility Operator is developing proposals to place new Utility Structures in the following situations:

- Greenfield areas: generally new subdivisions or new Roads.
- Roads in developing urban areas; areas of steady growth where space is still available in Roads.
- Congested Road Corridors: areas where little or no space is available to lay new Utility infrastructure.
- Roads subject to known future road widening.

The timeframe for Preliminary Notification will vary depending on the type and scale of Works, and the Utility Operator must generally **provide this about the same time as conceptual design or planning**.

4.2.2 Situations Requiring Preliminary Notification

Prior to lodging a CAR for new installations, Utility Operators must provide the FRA with Preliminary Notice of the Works using the form attached in Schedule A (Form A.1 Preliminary Notification of Project Works in the Road). Notification for new project Works must be no later than within 20 Working Days before the planned start date. This Preliminary Notice does not constitute a formal notice of intention to undertake Works in the Road Corridor but is to indicate that future work is being considered. Similarly the agreement in principle with these planned works does not constitute the FRA approval for Works to proceed. Such approval must be obtained through the formal CAR submission process (ref 4.3.1).

The FRA will respond to this notice promptly and no later than within 20 Working Days of receipt of the submission to commence the Liaison Process outlined in Section 4.2.4.

4.2.3 Information to be provided with the Preliminary Notification

The Utility Operator must submit as much information as possible with the Preliminary Notification including (where possible):

- a) a preliminary plan indicating scope and scale of the intended Works, including depth and route of any proposed Utility: and with respect to Road Corridors the presence of any adjoining Utility Structures, kerbs, Footpaths and trees;
- b) details of when the Work is scheduled including times of day as well as dates; and
- c) proposed location of any chambers or above-ground Utility Structures.

If the information is not available, the Utility Operator must provide the best information available at the time of the preliminary notification.

4.2.4 Liaison Process

1. Following receipt of the Preliminary Notification Form A.1, the FRA must discuss the proposed Works with the Utility Operator as soon as practicable and jointly identify any issues, such as:
 - a) the potential to coordinate with planned Works by the FRA or other Utility Operators; and
 - b) any matters where there is a potentially major impact on the Public.

At the meeting with the FRA, the Utility Operator must inform the FRA of the key points of relevant external meetings and consultation.

2. When planning Works in business precincts or in Footpaths in retail areas, Utility Operators and the FRA must co-operate to ensure that, where practicable:
 - a) other Parties are aware of any short to medium term planned Works;
 - b) other Utility Operators have a reasonable opportunity to provide or upgrade Utility Structures, if they wish to do so; and
 - c) no further Planned Works are undertaken for an agreed period following completion of the Works.

4.3 Corridor Access Request (CAR)

4.3.1 Lodgment of the CAR

1. The CAR constitutes formal notice of intention to carry out Works in the Road Corridor.
2. The number of CAR applications required must be the minimum to efficiently achieve the outcome of co-ordination of Works between Parties.
3. A Utility Operator or a delegated agent must lodge a CAR before carrying out any Work in Road Corridors. The CAR application Form A.2 is contained in Schedule A: Forms).
4. Each CAR application must include the details required in Section 4.3.3 below.
5. The CAR must be submitted with the following minimum period before the Utility Operator intends to start the Work, unless otherwise agreed:
 - a) 5 Working Days for Minor Works;
 - b) 20 Working Days for Major Works and Project Works;

The 5 Working Day period for Minor Works is by best efforts of the FRA to process promptly and the requirement for an actual start of the Work on site is dependent on the issue of the Work Access Permit (WAP) or the expiry of the 5 Working Days statutory period (ref Section 4.4).

6. The Utility Operator must submit more than one CAR, if requested by the FRA, where another Utility Operator or party is working on the same Work Site and the FRA does not have an agreement for one Party to take complete responsibility for the site.

4.3.2 Receipt and Evaluation of the CAR

1. Following receipt of the CAR, the FRA must advise the applicant as soon as practicable if a CAR does not include the information in Section 4.3.3 and as otherwise required on the forms (and if so, the processing of the CAR will not commence until the specified information has been provided).
2. Following receipt of the full information required with the CAR, the FRA must advise the Utility Operator of the Reasonable Conditions for access it will impose in accordance with Section 4.5, as soon as practicable and no later than the timeframes set out in this Code.

4.3.3 Information to be provided with the CAR

1. A Utility Operator must submit the following information with a CAR:
 - a) a site-specific Traffic Management Plan that:
 - i. is approved by a suitably qualified person and approved by the FRA;
 - ii. demonstrates that safety and other impacts on road users and workers are protected; and

- iii. complies with FRA traffic management rules.
- b) a plan indicating the proposed scope and scale of the Works, including depth and route of proposed Utility Structures and the location of nearby Utility Structures, kerbs, footpaths trees and street furniture;
- c) details of other Utility Operators that may be affected and evidence they have been consulted;
- d) details of when the Work is scheduled including times of day as well as dates; and
- e) proposed location of any chambers or above-ground Utility Structures.

Additional information may be required when:

- a) the location of the Work Site moves to a position not described on the WAP or CAR; or
- b) the Utility Operator does not complete the Works within six months of the issue of the WAP (or other period agreed between the Parties).

4.3.4 Emergency Works Notification and Approval

When Emergency Works are required in Road Corridors, the Utility Operator is still required to lodge a retrospective CAR under Section 4.3 and must:

- a) notify the FRA as soon as practicable;
- b) lodge a CAR as soon as practicable;
- c) where practicable, notify the owners of adjacent retail and other business premises of the Works being undertaken and the likely duration; and
- d) notify any Utility Operator whose Utility Structures are likely to be affected as soon as practicable.

This CAR must be submitted within two Working Days following the start of Emergency Works, though there may be some exceptional situations such as a widespread disaster, where this is not practical.

4.4 Issuing the Works Access Permit (WAP) for Roads

1. The FRA must issue the WAP Form A.3 to the Utility Operator (refer Schedule A) within **5 Working Days** of receiving a compliant CAR and
2. Schedule A: Forms specify any appropriate and Reasonable Conditions for the Works in accordance with this Section 4.4 and 4.5.
3. Where the WAP is issued for a set date or Work period and there is any change to the expected date or Work period, the Utility Operator must obtain the specific approval of the FRA to the time change as soon as practicable.
4. Where affected Parties have been identified, the applicant must provide those Parties with a copy of the WAP.

4.5 Setting Reasonable Conditions

4.5.1 Evaluation Criteria for Setting Reasonable Conditions

1. When considering whether a Reasonable Condition should be imposed, the specific criteria to be considered by the FRA is as follows:
 - a) the **safe and efficient flow of Traffic** (whether pedestrian or vehicular). Traffic management must be appropriate to the situation and recognise that temporary interference with Traffic movement is generally considered acceptable when balanced against the community benefits of the utility services;
 - b) the **health and safety of any person** who is, or class of persons who are, likely to be directly affected by the Work on the Road. Such conditions are to protect workers or road users;
 - c) the need to **lessen the likelihood of damage to property** (including the structural integrity of the Road) as a result of Work on the Road. Considerations include appropriate reinstatement conditions, such as 'like-for-like' surface replacement, damage restoration conditions, and conditions on working restrictions to protect other Road and Utility Structures in the Road Corridors;

- d) the **compensation that may be payable** for property that is likely to be damaged as a result of Work on the Road (refer Sections 5.1 and 5.2);
 - e) the need to **lessen disruption to the local community** (including businesses). Such conditions include limiting the time when Works can take place (Section 5.3.4), Traffic management restrictions (Section 5.3.5), and requiring a communication plan to be in place (Section 5.3.3);
 - f) the **coordination of installation of other Works** by other Utility Operators. Any conditions imposed to enable coordination of Works, or to require ducts to be installed for later use by others, must balance the nature of all of the Works and the effects on the community and on any Utility Operator of any delays in undertaking Works;
 - g) the **coordination with Road Corridor construction and maintenance Works**, by the FRA subject to the considerations in Clause (f); and
 - h) the **needs of the Utility Operator to establish or maintain its network in a timely manner**. Any conditions must ensure that Works undertaken in the Road Corridors do not impede the establishment of a network in a timely manner and consider the effects on the community of any delay.
2. In addition to the criteria listed above, the FRA must also consider the following criteria when considering setting Reasonable Conditions:
- a) **protection of access to private land from a Road:**
 - private property owners are entitled to access to a Road and reasonable access should be maintained during Works; and
 - this right must be balanced against the rights of Utility Operators to locate their infrastructure on or above Roads;
 - b) **the extent of quality assurance required:** The level of quality assurance must be appropriate to the size and complexity of the Works, and the scale of the Road;
 - c) **protection of Amenity Areas'** values:
 - d) **the interests of other Parties** that have planned future projects, including any other Utility Operator's Works and other activities on the Road. Such conditions would be on the location of utility infrastructure to avoid conflict with other users of the Road.
3. For the avoidance of doubt, conditions must not:
- a) have the effect of preventing, frustrating or unreasonably delaying the Utility Operator from constructing, placing, or maintaining Utility Structures or Works in, on, along, over, across, or under any Road;
 - b) have as their primary purpose the unreasonable avoidance of future costs incurred by the FRA under any legislation;
 - c) relate to the appropriateness of the Works rather than the actual undertaking of the Works itself;

4.5.2 Standard Template for Reasonable Conditions in Schedule B

The standard template in Schedule B: Template for Reasonable Conditions must apply to all Works undertaken in Road Corridors.

When, in relation to a CAR for access to undertake Works in a Road Corridor:

- a) there are no Special Conditions or Local Conditions specified in the WAP;
- b) the WAP is not issued within the required timeframe; or
- c) any Special Conditions or Local Conditions that apply to the CAR are not notified to the Utility Operator within the required timeframe,

Then, the FRA will be deemed to have notified the Utility Operator of the conditions set out in the standard template in Schedule B of this Code through the issue of this Code (and the relevant Utility Operator will be deemed to have accepted this form of notification by submitting the relevant CAR).

The intent of this Section is to accelerate approvals of Works to improve the efficiency of the process. The template will assist Parties to make agreements to simplify processes.

4.5.3 Imposing Local and Special Conditions in Road Corridors

1. **Local Conditions** are unique conditions affecting a defined geographical area that are:
 - a) not already covered within the appropriate template WAP;
 - b) not specific to a particular CAR; and
 - c) relate to a unique condition or event.
2. When the FRA considers that a **Local Condition** is necessary:
 - a) the FRA must notify all Utility Operators affected by the proposed Local Condition and provide that condition to those Utility Operators;
 - b) the FRA must provide the opportunity for Utility Operators to discuss and agree these Local Conditions, and this must be done separately from any CAR application process;
 - c) all Parties who have an objection must notify the FRA as soon as possible and enter into good faith discussions with other interested Parties to resolve the areas of disagreement;

Liaison meetings provide an opportunity to discuss and agree appropriate Local Conditions in an area.

3. **Special Conditions** are unique conditions not already covered within the appropriate template WAP or Local Conditions and which relate to a particular CAR only.
4. The FRA must include any Special Conditions on the WAP.

If, following receipt of the WAP any Utility Operator believes that the Special Conditions are not reasonable, it must advise the FRA and enter good faith discussions.

4.6 Non-Conforming Work

4.6.1 Utility Operator to Demonstrate Compliance

1. When, during the course of the Works, the FRA is of the opinion that material or workmanship does not meet the required standards defined in this Code, they must advise the Utility Operator and request information to demonstrate compliance.
2. The process for dealing with non-conforming Work is identified in Section 4.6.3 Remedial Actions. If the Utility Operator does not provide satisfactory information, the FRA may then:
 - a) request an independent quality assurance audit completed within 5 Working Days; and
 - b) if satisfactory compliance is still not demonstrated within 5 Working Days, or the Utility Operator does not respond appropriately; the FRA may issue a non-conformance notice or elevate this matter.
3. If the FRA requests an independent quality assurance audit (including any sampling, testing or investigation) the responsibility for costs is as follows:
 - a) if the Utility Operator provides appropriate information, and materials and workmanship comply with the Code, then the FRA is responsible for the costs;
 - b) if the Utility Operator provides appropriate information, but materials or workmanship do not meet requirements of the Code, then the Utility Operator is responsible for the costs; or
 - c) if the Utility Operator does not provide appropriate information, as required by the independent auditor, then the Utility Operator meets the costs.

4.6.2 Non-Conformance Notices

Non-conformance notices issued by the FRA must state the non-conforming matter, the remedial action required and the specified timeframe for completion.

4.6.3 Remedial Actions

1. The Utility Operator must undertake remedial Works required within the timeframe specified in the Non-Conformance Notice.
2. If the Utility Operator does not complete the remedial Work in a timely manner, and this creates an Emergency Work situation, the Utility Operator must cover all reasonable costs to complete the Emergency Work.
3. If the Utility Operator does not undertake the remedial Work within the agreed timeframe the FRA may undertake the Work and recover all reasonable cost of completing the remedial Work from the Utility Operator.

4.6.4 Stop Work Orders

1. If a stop Work order is issued by the FRA because of non-compliance with the WAP or this Code, the Utility Operator must from that point only carry out such Work required to:
 - a) remedy the non-compliance issues;
 - b) make the Work Site safe; and
 - c) remedy any inconvenience to pedestrian and vehicular Traffic.
2. The Utility Operator must stop Work until an order from the FRA allowing Work to recommence is received.

A template for a stop Work order and approval to recommence is in Schedule A: Form A.6.

4.6.5 Works Completion Notice

As soon as practicable but within **5 Working Days** of the completion of all Work for which a WAP has been issued, the Utility Operator must lodge a Works Completion Notice with the FRA (refer Form A.4)

1. Schedule A: Forms The Works Completion Notice must include the following, unless otherwise agreed by the FRA:
 - a) any amendments to information supplied on the original CAR, as necessary to describe accurately the location and extent of the work;
 - b) a written statement confirming that the completed Works fully comply with the conditions imposed by the WAP, signed by a person authorised to bind the Utility Operator; and
 - c) details of any outstanding Work that the Utility Operator has agreed to complete, for example, permanent surfacing or road marking.

Parties are encouraged to undertake joint inspections as soon as Works have been completed or are close to completion, depending on the nature of the Works. This will expedite the approval process for all Parties and enable the early disclosure of any issues with the quality of the Road Corridor or the standard of re-instatement.

2. The FRA must as soon as practicable, but within **5 Working Days**
 - a) sign and return the Works Completion Notice;
 - b) request further information if the notice as lodged is not adequate; or
 - c) advise the Utility Operator that it intends to carry out an inspection of the Works.
3. If the FRA intends to carry out an inspection of the Works, the FRA must:
 - a) notify the Utility Operator and agree an appropriate time for the inspection;
 - b) carry out the inspection jointly if the Utility Operator requires; and
 - c) carry out the inspection as soon as practicable, but no later than **10 Working Days** after receipt of the Works Completion Notice.
4. Within **5 Working Days** of completing the inspection the FRA must advise the Utility Operator if:
 - a) there are any issues with the quality of the Road Corridor and the standard of reinstatement; and
 - b) there are any additional actions required to ensure the completed Works are of the required standard and comply with the WAP.

5. The Utility Operator must promptly (but no later than **3 Working Days**) complete any Work required at its own cost and advise the FRA by sending out a new Works Completion Notice.
6. The FRA must then complete any additional inspections as soon as practicable (but no later than **7 Working Days** after receipt of the new Works Completion Notice) and advise the Utility Operator if the Works are accepted as complete or if further actions are required.

4.6.6 Warranty Period

1. The Utility Operator must:
 - a) warrant all Works completed under this Code for a period of **two years** after the date that the FRA signs the Works Completion Notice (except where those Works have been impacted by subsequent Works by other third parties);
 - b) undertake any repair or maintenance Work required to those Works for that period within an agreed timeframe when notified in writing by the FRA; and
 - c) warrant substantial repairs for a **further two years** after the Utility Operator has completed the repair.

Where a Utility Operator has consistently demonstrated the delivery of quality outcomes in their Works in the Road Corridor, the Warranty Period may be shortened by agreement between the Utility Operator and the FRA.

2. If other Works are scheduled and agreed to be completed after that date (such as permanent surfacing), the Warranty period for that part of the Works starts from the date that part is completed.
3. A Warranty or the expiration of a Warranty does not restrict liability for other breaches of either the Code or of common law, which extends beyond the Warranty period.

4.6.7 Completion of Maintenance Notice

1. For Road Corridors, at the **end of the two year Warranty Period** and immediately after, the Utility Operator must:
 - a) complete a maintenance inspection and carry out any repair or maintenance Work required; and
 - b) submit a Completion of Maintenance Notice (refer Schedule A: Forms).
2. The FRA must as soon as practicable, but within **10 Working Days**:
 - c) sign and return the Completion of Maintenance Notice;
 - d) request further information if the notice as lodged is not adequate; or
 - e) advise the Utility Operator that it intends to carry out an inspection of the Works.
3. If the FRA intends to carry out an inspection of the Works, then the same procedures and timeframes apply as for inspections for the Works Completion Notice (Sections 4.6.5).

4.6.8 Maintenance of Above-Ground Utility Structures

The Utility Operator must, for as long as the above-ground assets exist:

- a) maintain all above-ground Utility Structures, cabinets and Pedestals in good condition; and
- b) repair damage and vandalism within a reasonable timeframe.

5 Procedures for Working in Road Corridors

5.1 General Requirements

5.1.1 Works Access Permit

The Utility Operator must:

- a) not start the Work until a Works Access Permit (WAP) has been issued or until **5 Working Days** after the CAR is lodged, whichever comes first (this time may be extended under certain conditions, refer Section 4.4);
- b) ensure that all Works comply with the conditions of the WAP issued by the FRA concerning those Works;
- c) keep a copy of the WAP, including conditions, **on site while Work is being carried out**; and
- d) complete the Works within six months of issue of the WAP or apply for another (Section 4.4).

5.1.2 Protection of Existing Assets

1. When undertaking Works all Parties must:
 - a) take measures to ensure all existing Utility Structures that may be affected by site construction are not damaged during the course of the Work;
 - b) carry out its Work in a manner that protects the separation requirements of other Utility Operators as provided for in relevant codes and regulations;
 - c) maintain the integrity of, and not destabilise, any embankments or adjoining properties when they are working in or near and maintain safety distances for Utility Structures if they modify embankments or Road surfaces; and
2. Before undertaking Works, the Utility Operator must:
 - a) carry out a site assessment;
 - b) record the existing condition of all surfaces and above-ground Utility Structures in the immediate vicinity of the Work Site; and
 - c) take photos to record the pre-existing condition of the Work Site, particularly any existing damage.

All Traffic signal ducts, cables, chambers and poles affected by the Utility Works must be reinstated by the Utility Operator as soon as practicable and in any event within **48 hours** of final reinstatement of the excavation in the immediate vicinity, using a Contractor approved by the FRA.

3. If damage is caused to any Road, property or utility assets:
 - a) the Utility Operator must notify the FRA and the respective Utility Operator of any damage caused to its assets or property as a direct result of the Work it is undertaking;
 - b) if it is not clear who or what was responsible for the damage, all relevant parties involved with the particular Works that have resulted in the damage must cooperate with the owner of the damaged assets in identifying the Party responsible for the damage;
 - c) noticeable settlement in Carriageways and Footpaths must be rectified within the period set out in the notice issued in accordance with Section 4.6.2; and
 - d) all other Road assets, properties and existing Utility Structures that are damaged by any Work must be repaired as soon as practicable after the damage occurs. The affected Utility Operator responsible for the Utility Structure or the FRA must decide who will carry out the repair Work.

Damage may include, but is not limited to, subsidence or settlement of Trenches or Road infrastructure, Road surface deterioration such as erosion of poor surface material, the appearance of the joint crack through the joint sealing or pot holing of the adjoining surface at the edge of the Work. It also includes damage to any or all adjacent utility infrastructure affected by the Works and any vehicles or any other private property damaged during the implementation of the Works.

The Utility Operator is responsible for all Work it undertakes with regard to property connections. Unauthorised connections to utilities may exist that have not been commissioned by the Utility Owner. If any damage to other Parties' assets are found that is believed to have been caused by such unauthorised activity, the Party that finds the damage should notify the Utility Owner whose property has been affected.

5.1.3 Maintaining Stormwater Networks

Utility Operators must:

- a) take appropriate steps to keep excavations free of water, to minimise risks associated with rainfall and subsoil drainage;
- b) install appropriate drainage or flow control devices where a Utility Operator cuts across a slope or intersects a subterranean groundwater flow path, as agreed with FRA;
- c) protect any roadside stormwater systems that are potentially affected by the Works. In Road situations where there is no kerb, the water channel is either the clearly formed side drain, or must be taken as a 1 m wide zone along which any stormwater can flow on the edge of the Road formation;
- d) retain existing formed and natural stormwater drainage paths during Works and fully reinstate after Works, including stormwater drainage lines from residential private property.

5.2 Locating Existing Underground Utility Structures

5.2.1 General Procedures for Location

1. Before commencing Work, the Party undertaking the Work must:
 - a) identify and notify the Utility Operators and FRA and obtain requirements required for Work under, adjacent to or over their Utility Structures and Road Structures;
 - b) have located all affected underground Utility Structures and Road Structures, such as Traffic light loops (refer Locating Traffic Signal Assets), fibre cables etc, in accordance with the requirements of the FRA and Utility Operators responsible for their affected Utility Structures and Road Structures;
 - c) where excavations are required to locate the structures, employ safe digging practices; and
 - d) if the Party cannot locate an identified structure in close proximity to the identified location, notify the respective Utility Operator or FRA who is responsible for identifying or correctly locating its assets.

All Parties must always assume that underground Utility Structures are present until it is proved otherwise.

Utility Operators with Utility Structures in proximity to the Works may assist by marking their service locations on the ground.

If another Party affects the Work of a Utility Operator by not reasonably complying with their obligations under this Code, the affected Utility Operator may seek to recover any additional costs incurred by it from the Party that failed to comply.

5.2.2 Finding Unmarked Assets owned by Others

Where a Party or its agent locates or exposes assets not shown (or shown inaccurately) on any plan:

- a) the Party must notify the owner of that asset of the true location, and the owner of that asset must amend its records and notify the FRA accordingly; or
- b) if the Utility Operator is unidentified, the Party must notify the FRA and the FRA must promptly try to identify and notify the Utility Structure's existence and location to the owner; and
- c) the Party that owns that Utility Structure must promptly (but no later than **3 Working Days**) provide any assistance reasonably required.

5.3 Site Management

5.3.1 General

1. The construction site must be clearly defined, and barricaded where appropriate, including any area of the Corridor used for storage or that does not have a proper temporary surface for public use.
2. The Utility Operator must also ensure:
 - a) the size of the Work and the Road portion of the site is kept as small as is reasonably possible;
 - b) site is kept tidy at all times;
 - c) safe provision is made for all Road Corridor users including Traffic, pedestrians and cyclists;
 - d) access to properties adjacent to the site is avoided or minimised to the extent reasonably practicable;
 - e) stormwater and siltation control is managed; and
 - f) at completion, the area must be tidied and left in a similar condition to that which existed before the Works commenced.

5.3.2 Noise and Vibration Management

Utility Operators should:

- a) address noise management in its Work planning;
- b) muffle all plant and equipment in accordance with good industry practice;
- c) avoid unreasonable nuisance and use methods that minimise noise levels, such as avoiding the use of breakers and other similar loud noise when required to work at night; and
- d) take additional care when undertaking Work adjacent to asbestos pipes, as these are prone to failure when subjected to vibration.

5.3.3 Public Relations and Communication

All Parties must keep affected parties appropriately informed of proposed Works and Works in progress.

A written communication strategy must be prepared when both Parties agree this is required or where the FRA specifies this in the Reasonable Conditions (refer Section 4.5). A written strategy may be appropriate where Major Works or Project Works may have a significant effect on the Public or property owners or occupiers. Reasonable Conditions may also specify communications such as:

- production and distribution of a suitable leaflet advising the Public of the forthcoming project at least one month before Work starts;
- advertisement/public notice in specified local newspapers at least two Working Days before Work is started; and
- advertisement/public notice on specified local major radio stations in advance of the Work and throughout the period of the Work (typically before and during peak Traffic times).

5.3.4 Hours of Work

Hours of Work must be:

- a) agreed between the Parties or specified in the Reasonable Conditions; and
- b) carried out outside peak Traffic flows (except for Emergency Works), unless otherwise agreed.

Hours of Work may be restricted to limit interference with property access, or to minimise noise, other environmental impacts and Traffic congestion. Where the Hours of Work may be severely restricted the Parties may agree on special arrangements to work extended hours.

5.3.5 Traffic Management

1. The Utility Operator must implement the approved TMP, agreed as part of the CAR process (refer Section 4.3.3), throughout the duration of the Works.
2. If a Work Site audit shows that the Traffic management does not comply with the above or any other condition, the Utility Operator must remedy the non-compliance immediately, or cease working until authorised to recommence, except for that Work required to ensure the safety of the Work Site.

5.4 Procedures for Undertaking Emergency Works

1. In carrying out Emergency Works, the Utility Operator must:
 - a) comply with any legislative provisions relating to Emergency Works;
 - b) undertake notifications and obtain approvals as per Section 4.3.3;
 - c) before starting Work, secure the working area and apply safety measures to protect workers and the Public; and
 - d) identify the location of other Utility Structures prior to Works starting.
2. Under the Fiji Roads Authority Decree 2012, FRA is responsible for road safety (relating to provision and management of the road). In exceptional circumstances this gives FRA the authority to carry out Work in an emergency and the duty to notify the Utility Operator as soon as possible.

In the event of an Emergency, the FRA should determine (in discussion, where possible, with other affected Utility Operators) the appropriate course of action to ensure the community's needs are best served.

6 Specification for undertaking Work within the Road Corridor

6.1 General Requirements

The Utility Operators/applicant must comply with;

- the trenchless and trenching procedures included in Trenchless and Trenching Specification;
- surface layer requirements included in Surface Layer Reinstatement;
- Fiji Health and Safety at Work Act 1996
- the requirement for Code of Practice for Temporary Traffic Management (CoPTTM)

7 Cost Allocation

7.1 Purpose

The purpose of this chapter is to provide guidance relating to the apportionment of cost between FRAs and Utility Operators in Road Corridors.

7.1.1 General Provisions in the Road Corridor

In most cases where Utility Structures are located in the Road Corridor the costs arising from an action should generally be met by the Party causing that cost to be incurred

1. When the FRA requires Utility Structures to be moved for the purposes of its own Works Programme, then the FRA must pay all reasonable costs of the Work.
2. The exceptions to Clause 1 above include:
 - a) if the Utility Structures have been laid or erected contrary to this code or applicable legislation (post 1 January 2013);
 - b) if the Utility Structures are in a dangerous or unsafe condition;
 - c) where the Parties have specific cost sharing arrangements in place; and
 - d) any claims for betterment
3. The amount to be paid should either be agreed between the Parties or, if no agreement can be reached, either party may refer the matter, in writing stating the reasons for dis-satisfaction, to the Boards of the affected parties for resolution. A copy of the any dis-satisfaction notice must also be provided to the FRA within 5 Working Days. The parties must also inform the FRA of the outcome following the resolution of the issue.
4. When the FRA imposes a Reasonable Condition for the purpose of increasing amenity value (i.e. in addition to 'like-for-like'), the FRA is required to pay the net costs of achieving this additional amenity value.

7.1.2 Guidance for Arriving at Agreements

Cost allocation agreements should give consideration to the following principles:

- a. **non-discrimination:** all Utility Operators should be treated the same.
- b. **causer pays:** the principle of Clause 1.3 (8) applies.
- b. **direct costs only:** costs should be measurable and material. Indirect costs such as the delays and inconvenience caused by Road Works to road users, or the effect on adjoining property values or business trading while Road Works are underway are difficult to quantify accurately and are better dealt with by way of appropriate Reasonable Conditions when the Works are being consented.
- c. **efficiency and contestability:** cost allocation agreements should reflect the concept of economic efficiency. Accordingly, the direct costs will be founded on contestability.
- d. **betterment:** this issue arises with the replacement of assets owned by the other Party. If Parties choose to arrive at an arrangement regarding betterment a good rule of thumb is that neither Party should unduly benefit from Work carried out on their asset by the other Party without contributing to it and existing materials should be re-used to the maximum practicable extent. Where a true betterment situation exists then the Parties will need to reach a mutually agreeable means of valuing the agreed betterment and sharing that value.
- e. **wrongly located Utility Structures:** the Utility Operator should meet the cost of relocating a wrongly located Utility Structure to the correct location, if necessary for another Party's Works. However, if the cost of relocating a wrongly located Utility Structure is no greater than would have been the case if the Utility Structure had been located correctly, then principle f) applies.
- f. **economically efficient solution:** FRA and Utility Operators should seek to optimise the overall costs and benefits to the end users of their services. For example, where the relocation of a

Utility may result in reduced costs for the relocated Utility there could be an opportunity to provide an efficiency gain to all parties. Innovative solutions to minimise the costs should be encouraged, for example, by rewarding better performers in the Road Corridor with reduced audit requirements.

7.1.3 Road Corridor Manager Cost Recovery

FRA have the role of governing the Road Corridor efficiently and effectively, including the administration of the CAR and monitoring of consent compliance. It is appropriate that FRA recover the reasonable costs of managing the CAR activity from Utility Operators. Costs incurred by the FRA for this service should be separately identified and fees set through an appropriate consultative procedure.

Schedule A: Forms

1. Preliminary Notification of Project Works in the Road
2. Corridor Access Request (CAR) for Roads
3. Works Access Permit (WAP) For Roads
4. Works Completion Notice
5. Completion of Maintenance Notice
6. Stop Work Order
7. Standard Letter Advising Utility Works
8. Non-Conformance Notice

A.1 Preliminary Notification of Project Works in the Road

From:	
	[Utility Operator]
Date:	

Preliminary notification is provided for the following Project Works:

The following plans are attached:

Major work situations that occur on this job are (tick all those that are applicable, where known):

	A Trench extending more than 20m along the Road;
	A traffic lane needing to be closed on a Main Road
	A Road closed for more than two minutes during peak Traffic, or business hours in Central Business Districts
	Work in an Arterial or Collector Road
	Work affecting metered parking or other restricted parking areas for more than two hours during normal business hours
	Work affecting a Road Structure such as a bridge, tunnel, or retaining wall
	Work needing to be done outside normal hours of work
	Work restricting property access for more than ten minutes for business or one hour for residential
	Diverting a footpath for more than eight hours
	A financial contribution is sought from the FRA, such as towards the reinstatement of the Road surface

Comments: (e.g. about above situations/ when the Work is scheduled to start and finish, other Utility Structures that may be affected)

Signed		Print Name	
Phone		Email	

A.2 Corridor Access Request (CAR)		[FRA use] No.
Utility Operator		
Contact Name		
Contact Details		

Notifies Fiji Roads Authority of our intention to undertake the following Work:

Type of Work

Project	<input type="checkbox"/>	Major	<input type="checkbox"/>	Minor	<input type="checkbox"/>	Emergency	<input type="checkbox"/>
---------	--------------------------	-------	--------------------------	-------	--------------------------	-----------	--------------------------

Details of proposed Work (tick all relevant aspects):

<input type="checkbox"/>	Open Trenching	<input type="checkbox"/>	Installing Cabinets / Pedestals
<input type="checkbox"/>	Horizontal / Vertical Drilling	<input type="checkbox"/>	Installing Other Structure (Specify Below)
<input type="checkbox"/>	Installing Chambers	<input type="checkbox"/>	Removing Cabinet / Pole / Pedestal / Structure
<input type="checkbox"/>	Installing Poles / Post / Piles	<input type="checkbox"/>	Other (Specify below)
Description of Works			
Address			

Location in Road (tick)

Carriageway	<input type="checkbox"/>	Footpath	<input type="checkbox"/>	Berm	<input type="checkbox"/>
-------------	--------------------------	----------	--------------------------	------	--------------------------

Estimated Timing	Start Date / Time	End Date	Duration Days
Reference No's:	Utility	Consents	
Utility Structures likely to be affected by the works	Name of UO	Contact Person	UO Consulted
			Yes / No

Applicant's details

Role in Work (tick)

<input type="checkbox"/>	Utility Operator	<input type="checkbox"/>	Consultant	<input type="checkbox"/>	Contractor	<input type="checkbox"/>	Other
--------------------------	------------------	--------------------------	------------	--------------------------	------------	--------------------------	-------

Company Name	Contact Person
Postal Address	
Phone	Mobile
Email	Fax

If the above information is not provided, the CAR will be deemed not to have been lodged. Lodgment will be deemed when the information required has been specified.

We hereby agree for/or on behalf of the Utility Operator to comply in full with the requirements of the Code of Practice for Utility Operators' Access to Road Corridors and any other Reasonable Conditions required by the FRA and to keep this notice on site while Work is in progress. This request is valid for 6 months from date of issue

Signed	Date
--------	------

A.3 Works Access Permit (WAP)	[FRA use] No.
--------------------------------------	-------------------------

1. Details of proposed Work

- Activity:
- Address:
- Location in Road:
- Estimated Start Date:
- Estimated completion date:

2. The Parties

Fiji Roads Authority being a body corporate under the FIJI ROAD AUTHORITY DECREE 2012;

..... being an approved Utility Operator submitting a request for access to the Road Corridor

..... being the agent of the Utility Operator, submitting this request on behalf of the Utility Operator and in accordance with the Utility Operator’s statutory rights (‘the Applicant’)

3. Attachments (delete as appropriate)

- Attachment 1 being the Corridor Access Request.
- Attachment 2 being the Schedule of Reasonable Conditions.
- Attachment 3 being plan showing the agreed service location.

4. Background

- a) The Utility Operator wishes to carry out the works stated on CAR Number and thereafter maintain the utility structures established in the corridor;
- b) The FRA is required to provide a written consent and to provide a schedule of reasonable conditions, if required, under which the request for access has been made; and
- c) In accordance with the Code: Utilities' Access to the Transport Corridors and on behalf of the FRA, I give my written consent for access to the corridor at the agreed location and attach my schedule of reasonable conditions.

Signed		Date	
--------	--	------	--

Acting pursuant to delegated authority.

FOR FRA APPROVAL USE ONLY

	Approved Contractor		Route Plan Submitted		TMP Submitted		Stockpiling Arrangements
--	---------------------	--	----------------------	--	---------------	--	--------------------------

A.4 Works Completion Notice	<i>[FRA use]</i> No.
------------------------------------	--------------------------------

From:	[Utility Operator]
Date:	

This is to advise that Work on CAR No.: _____ is now complete
 On Street Name

Please find attached:

	Amendments to information provided on the CAR
	A copy of the compaction tests
	A written statement confirming that the completed Works comply with the WAP conditions
	A sketch or plan showing the extent and location of the Work carried out
	Details of any Work for the Corridor Manager to complete

Type of Work

Project		Major		Minor		Emergency	
---------	--	-------	--	-------	--	-----------	--

Applicant Details (tick)

Utility Operator		Consultant		Contractor		Other	
------------------	--	------------	--	------------	--	-------	--

Company Name		Contact Person	
Postal Address			
Phone		Mobile	
Email		Fax	

Works meet required standards. Signed by Utility Operator or their agent:

Date		Signed		Print Name	
------	--	--------	--	------------	--

Works comply and 2-year Warranty commences. Accepted by Corridor Manager:

Date		Signed		Print Name	
------	--	--------	--	------------	--

A.5 Completion of Maintenance Notice	[FRA use] No.
---	-------------------------

From:	
	[Utility Operator]
Date:	

This is to advise that the 2-year Warranty audit of CAR No. _____

On Street Name

has been completed and complies with the conditions of the CAR.

Type of Work

Project		Major		Minor		Emergency	
---------	--	-------	--	-------	--	-----------	--

This audit was accomplished by:

	A site inspection
	Not inspected, but was one of a batch covered by random inspections in accordance with the Quality Plan agreed with FRA

Audited by:

Signature		Print Name	
Company		Date	

Works meet required standards. Signed by Utility Operator or their agent:

Date		Signed		Print Name	
------	--	--------	--	------------	--

A.6 Stop Work Order	[FRA use] No.
----------------------------	-------------------------

Pursuant to the authority and responsibilities of the FRA an order is hereby given to stop work on the following job/s:

--

The reason for this is that the Work does not comply with the following requirements:

--

In the meantime, the only work to be carried out is work that is necessary to remedy either the above aspects that do not comply, or work necessary to protect the safety of road users, and to remedy any inconvenience to pedestrian and vehicular Traffic. The stopped work is not to recommence until appropriate remedial work is carried out and an 'Approval to Recommence Work' authority is signed and issued by the FRA.

Signed by	
Name	
Time	
Date	
Received by	[Utility Operator]
Time	
Date	

Approval to Recommence Work

This is to confirm that following the 'Stop Work Order' issued for the following Work, the remedial work has been satisfactorily completed and the stopped work may now re-commence from _____(date).

Signed by	
Name	
Time	
Date	

A.7 Standard Letter Advising Utility Works	<small>[FRA use]</small> No.
---	--

To: The Property Owner / Resident / Business

PROPOSED UTILITY WORKS

This is to let you know that work on the following Utility Structure will soon be carried out in the Road.

Location of Work	
Description of Work	
This work is being done for	
Expected duration (dates)	
Hours of Work	(Normally 7.00 a.m. to 6.00 p.m. Mon to Sat)
Any parking restrictions	
Problems you may experience	

We regret any inconvenience that may be caused by this Work. If you have a problem or any queries please contact us on the telephone number below.

Contractor				
Phone	Day		Night (24 hr)	

A.8 Non-conformance Notice	[FRA use] No.
-----------------------------------	-------------------------

<p>To:</p> <p style="text-align: right;">[Utility Operator]</p> <p>Date:</p>
--

The following item/s of non-conformance with the Reasonable Conditions or the Code of Practice: Utilities' Access to the Road Corridor has been identified:

--

The Utility Operator is required to undertake the following remedial work within days. If the remedial work is not undertaken within this timeframe, the FRA may undertake the work and recover all reasonable cost of completing the remedial work from the Utility Operator.

--

Signed by	
Name	
Time	
Date	

Revocation of Non-Conformance Notice

This is to confirm that the remedial work has been satisfactorily completed.

Signed by	
Name	
Time	
Date	

Schedule B: Template for Reasonable Conditions

Where the FRA has received a CAR from a Utility Operator, the FRA requires the Utility Operator to comply with these Reasonable Conditions placed on the Works

In accordance with Section 4.5.2 of the Code, when:

- a) there are no Special Conditions or Local Conditions specified in the WAP;
- b) the WAP is not issued within the required timeframes set out in Section 4.3.1 or
- c) any Special Conditions or Local Conditions that apply to the CAR are not notified to the Utility Operator within timeframes set out in Section 4.3.1;

then, the FRA will be deemed to have notified the Utility Operator of these conditions set out in the standard template in Schedule B of this Code (and the relevant Utility Operator will be deemed to have accepted this form of notification by submitting the relevant CAR) and as such these conditions will be treated as being the Reasonable Conditions notified in writing to the Utility Operator in relation to that CAR.

General Conditions

1. The Utility Operator must:

- a) carry out all Work in Road Corridors in accordance with the Code
- b) undertake all Works in compliance with the Acts of Parliament and mandated codes of practice that relate to their industry and the type of Work described within the plans and methodology submitted;
- c) install assets more or less in the location shown on the attached plans, and agree the exact location and position with the FRA before Work commences;
- d) locate any Utility Structures in the Road Corridor in the agreed position shown on the drawings and clear of the Carriageway, Road Corridor furniture and kerbs, drains, manholes, etc. Utility Structures agreed to be within the trafficable part of the Road are to be flush with the surface and designed to withstand full heavy Traffic loading;
- e) provide a full description of the construction methodology, reinstatement, resurfacing and compaction and agree this with the FRA prior to Work commencing;
- f) make the Works available at all times for inspection by any person representing the FRA;
- g) keep a full copy of the Works Access Permit and Reasonable Conditions on the Work Site at all times during the Works;
- h) undertake remedial action on non-conforming Work within the timeframe set by the FRA, where reasonable and practicable;
- i) gain all the necessary consents, approvals and permits from the relevant statutory and regulatory authorities at its own cost;
- j) compensate the FRA for any damage or costs incurred to the Road Corridor due to the Work or for costs resulting from the removal of abandoned installations, Utility Structures, components and equipment that belong to the Utility Operator;
- k) repair all Road Corridor assets damaged as a result of the Works, should the FRA determine these are necessary prior to the end of the Warranty period;
- l) restore to their original condition any surface or Utility Structure that was damaged or removed as a result of the Works;
- m) control the surface water channels so as to cause minimal interference to existing flows;
- n) fully restore the surface water channels at the completion of the Works;
- o) notify the FRA of any maintenance Work it proposes to undertake within the two-year Warranty period;
- p) have in place an approved TMP for Roads at least two days prior to Work commencing on the Work Site;
- q) provide the FRA with two Working Days' notice before commencement of Work on the Work Site;
- r) ensure that the Work is carried out under the control of a warranted supervisor as required by the Code of Practice for Temporary Traffic Management (future FRA document not yet published) and ensure that there are sufficient people on site specifically to control the flow of Traffic through the site in accordance with the TMP;

- s) complete Works in the Road Corridor in one continuous operation (suspension of Works over five continuous days requires the prior written permission of the FRA);
 - t) protect and maintain all Road Corridor signs, markers, signals, barriers and associated marking and replace them to the appropriate industry standard where they have been damaged by the Works;
 - u) complete and submit a Works Completion Notice form when the Works are complete; and
2. Where otherwise required due to Traffic volumes or specific residential or Business District requirements, the hours of Work must be as specified in the Local Conditions and Special Conditions.
 3. The Warranty period starts from the date the FRA has given signed acceptance that the Work is complete.
 4. Unless the Works stated in the WAP have started on the Work Site, the agreement relating to the Works will only remain valid for six months from the date of approval on the Works Access Permit.
 5. The FRA must manage all applications relating to Road Corridor access in accordance with the timeframes and processes in the Code.
 6. The FRA may:
 - a) assess the suitability of any action proposed by the Utility Operator during the Warranty period and impose Reasonable Conditions that will maintain the integrity of the Road assets;
 - b) arrange for remedial Work to be done and recover the costs incurred from the Utility Operator, if the Utility Operator fails to take action within the agreed timeframe; and
 - c) instruct the Utility Operator to stop Work and leave the Work Site (having made the site safe) if the Works are not complying with the relevant Reasonable Conditions including any plans, relevant conditions or specifications contained in the Code, or permission requirements.
 7. In granting this WAP, no vested right is created.
 8. This WAP is not transferable without the written permission of the Road FRA.

Local and Special Conditions

These are attached to the Schedule of Reasonable Conditions as

[Delete as applicable]

There are no Local or Special Conditions

The Local Conditions are:

The Special Conditions are:

Appendix A Locating Traffic Signal Assets

A1. General

Most existing Traffic signal cables carry mains voltage and are housed in ducts that can have 300 to 600 mm cover. Traffic detector loops, including Traffic counting equipment, are typically located in the Road surfacing within 6 m of a stop line at any signalised location and connected to the signal control box in ducts. In heavily trafficked Roads, there may also be advanced Traffic detector loops to detect queues at some distance from the Traffic signals on the approach lanes. Figure A 1 illustrates the approximate layout of underground cables around a Traffic signal.

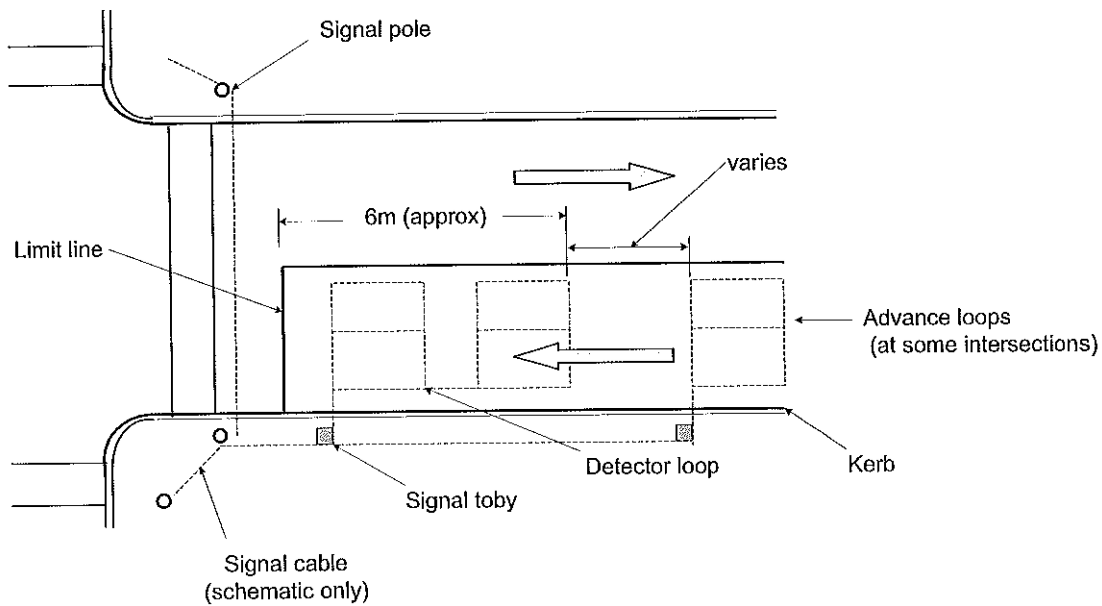
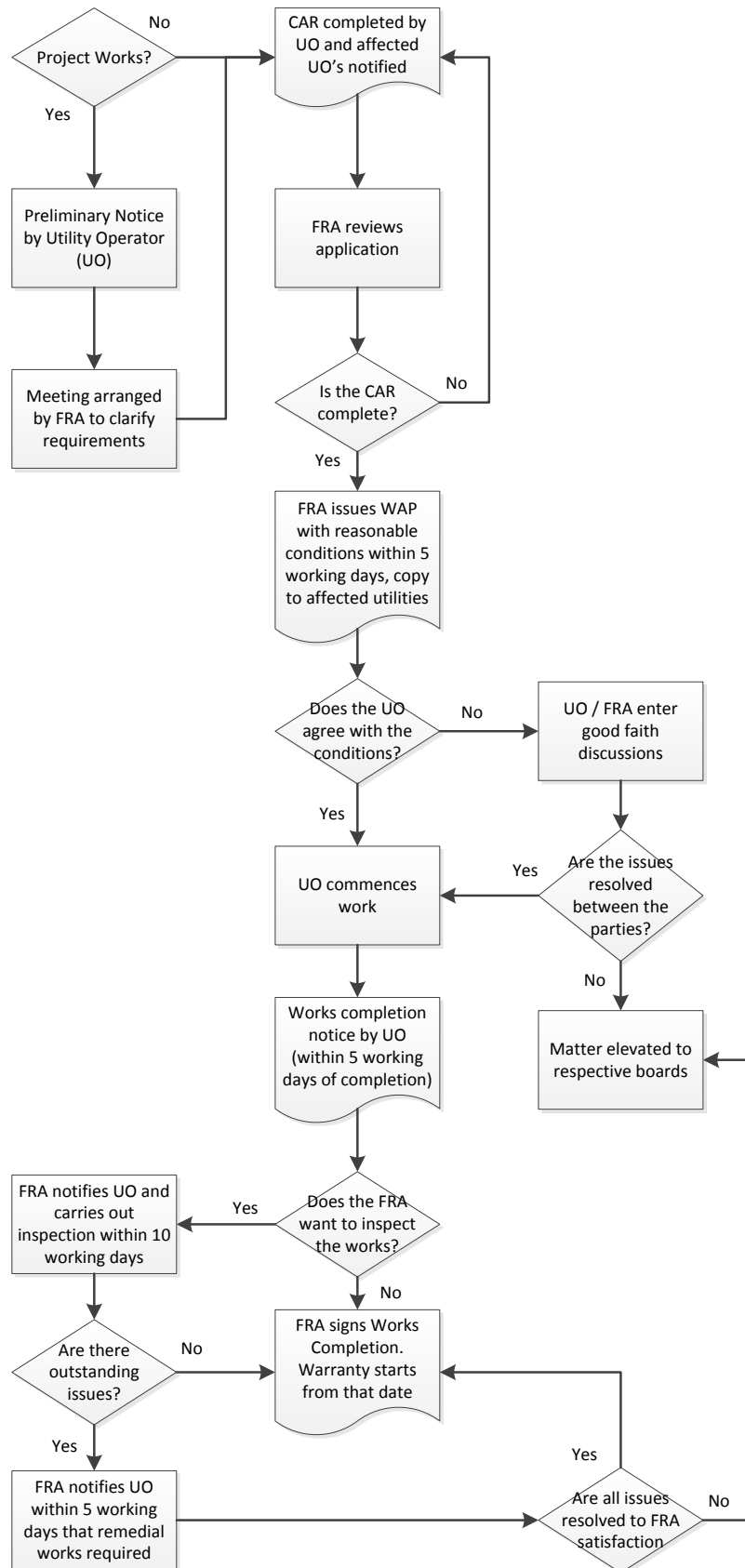
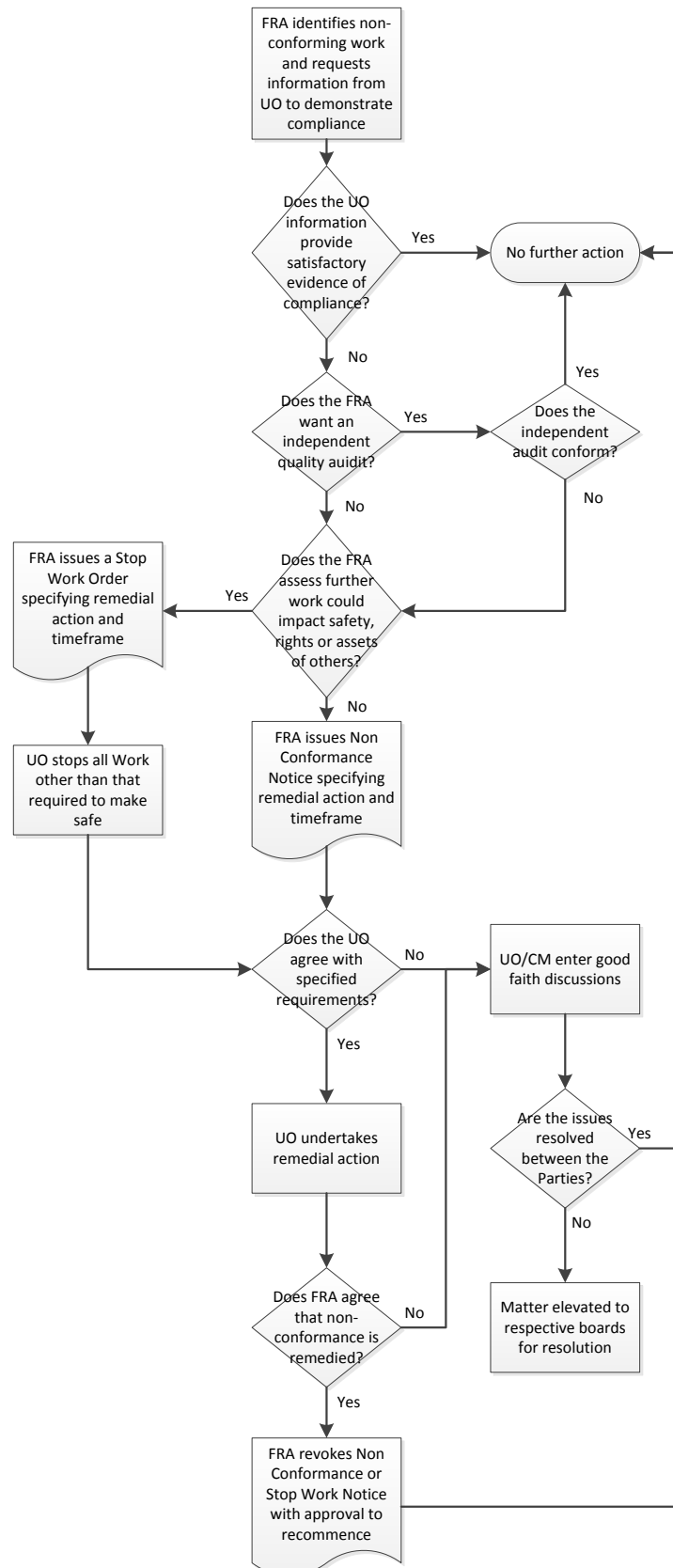


Figure A 1: Indicative locations for Traffic signal cables, power cables and detector loops

Appendix B Corridor Access Request (CAR) Requirements for Road Corridors



Appendix C The process for dealing with potentially non-conforming Work



Appendix D Trenchless and Trenching Specification

D1. General

Utility Operators must operate and manage Work Sites with Trenchless and Trenchless techniques to:

- a) to protect public safety at all times;
- b) to avoid impacts on other assets (other buried assets);
- c) in compliance with all other requirements of this Code.

D2. Trenchless Specification

1. When using trenchless construction, the Utility Operator must:

- a) agree the construction technique with the FRA, taking into account the design requirement and site constraints; and
- b) use plans, locators and trial excavations as appropriate to locate existing Utility Structures in the same way as for excavation methods.

2. The preference is for Utility Operator to use trenchless construction in Main Roads, particularly in the Carriageway, unless it can demonstrate that this is not reasonable or practicable. Reticulation by trenchless construction rather than open trenching is encouraged to minimise any adverse effects on the Road, unless it is impracticable, technically infeasible, unsafe, uneconomic or represents an unacceptable level of risk to other underground Utility Structures.

When using trenchless construction, the Parties should also consider:

- a. increasing clearances from other Utility Structures, taking into account factors such as the construction of adjacent plant, ground conditions, bore diameter, the accuracy and reliability of the technique/equipment being used and whether the other Utility Structures are parallel to or crossing the proposed line;
- b) increasing minimum cover requirements due to soil conditions and their potential to deflect the bore or drill; and
- c) exercising special care to ensure that other underground Utility Structures are not damaged.

D3. Trenching Specification

1. Prior to the excavation of the Trench:

- a) any concrete, asphalt or chip seal surfaces must be cut with a power saw in a clean, straight line through the full thickness of the surface layer;
- b) the separation distance from the original saw cut (the trimming allowance, refer Figure D 1) must be a minimum of 150mm, except for concrete Carriageways where a minimum of 300mm applies, but more may be required to maintain the integrity of the final Trench reinstatement;
- c) if necessary, a second saw-cut must be made to ensure that all edges are straight, smooth, parallel to the line of the Trench and that minimum Trench trimming allowance is achieved; and
- d) all joints must be cut to a depth sufficient to avoid disturbance of adjoining pavement. The depth of cutting must be not less than 30mm, or for concrete Carriageways, Footpaths and vehicle crossings the depth must be not less than 80% through the concrete pavement layer.

2. If any over-break occurs:

- a) a further cut must be made to maintain trimming allowances and a clean edge for reinstatement;
- b) any change in direction of the saw cut must not exceed an angle of 45° to the Trenchline;
- c) the total length of over-break must not exceed 10% of the length of the Trench; and
- d) the length of trim at any one section of over-break must not be less than 5m (refer Figure D 2: Parallel Cutting of Joints).

3. During excavation of the Trench:

- a) there must be no undercutting of areas adjacent to the excavation;

- b) if slumping at the sides of the excavation causes depressed areas adjacent to the excavation, or if the edges of the pavement are lifted during excavation, additional Trench cutting outside the original line of the excavation and outside the area of damage must be carried out;
- c) excavation to profile/depth must be in accordance with the construction drawings;
- d) the length of open Trench must be kept to a minimum and backfilled as soon as practicable;
- e) excavated material that is not being used for backfill must be removed from the site;
- f) where groundwater is likely to accumulate as a result of Utility Works, excavations must be permanently drained; and
- g) the Utility Operator must provide temporary support/shoring to all Trenches if required to provide lateral support to the excavation and to comply with health and safety codes, Effective drainage of the Trench is particularly important in rural situations where Trenches run through cut areas, fill embankments or slip prone areas.

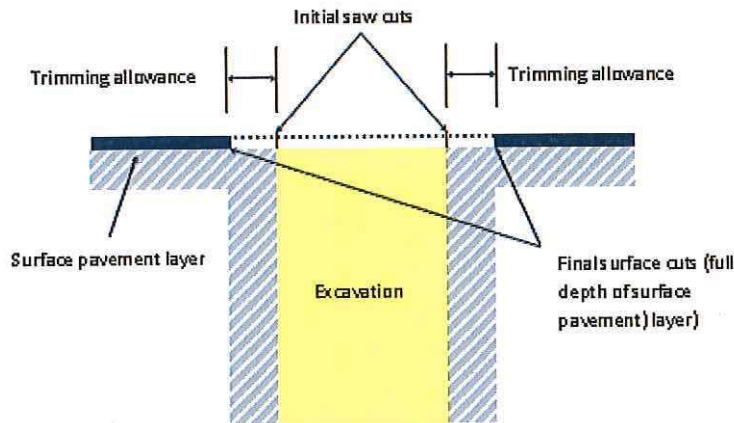


Figure D 1: Standard Trimming for Trench Cuts

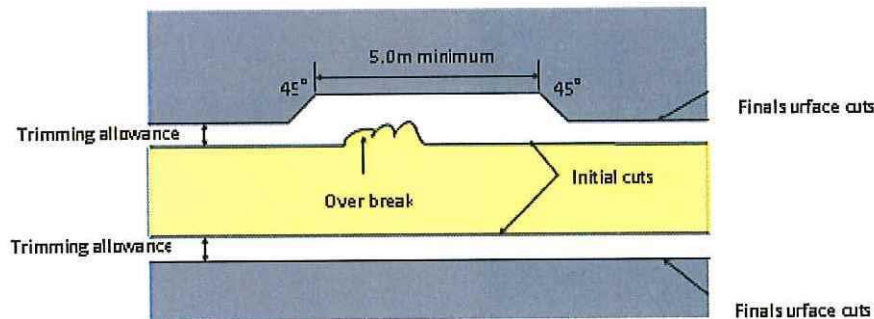


Figure D 2: Parallel Cutting of Joints

1. After backfill and prior to surface reinstatement, the Utility Operator must re-cut surfaces if required, to achieve a neat simple pattern for reinstatement and to maintain minimum trimming allowances.

Generally this will mean parallel saw cuts on the sides of any area, but for open graded porous asphalt saw cutting is not the recommended method.

2. When a Trench turns a corner, additional allowances must be made, as shown in Figure D 3.

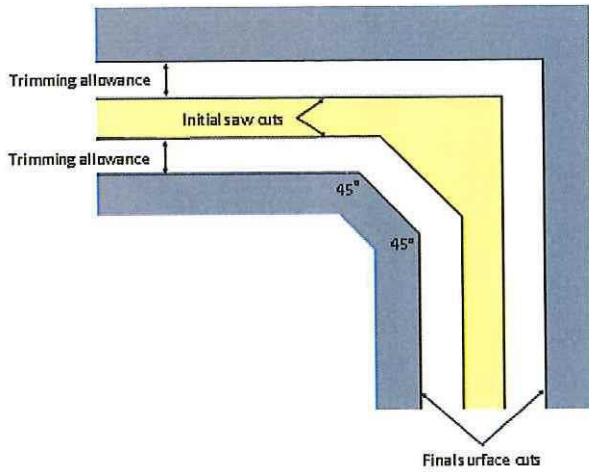


Figure D 3: Trench Excavation with Corners

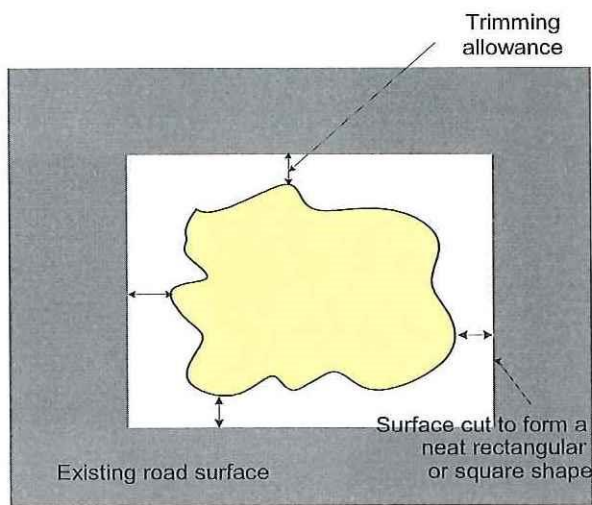


Figure D 4: Finishing of Irregular Shaped Excavation

Figure D 4 is an example of how an irregular excavation should be expanded to form a more regular shape to minimise disruption to the surface.

D4. Backfill materials

1. All backfill materials:

- a) must be in accordance with recognised standards and approved by the FRA;
- b) must be adequate to ensure that the backfilled area can at least match the pre-Trench subsurface integrity;
- c) must be of sufficient quality and strength to support the imposed loading, including Traffic and Road construction loading; and
- d) where concrete or other stabilised layers, including geotextile material, exist in the Road pavement, the Utility Operator must reinstate the Trench with similar material (further guidance on concrete reinstatement is included in Section D5).

Figure D 5: Fill Layers in Trenches illustrates typical Trench zones, with requirements for each zone details below.

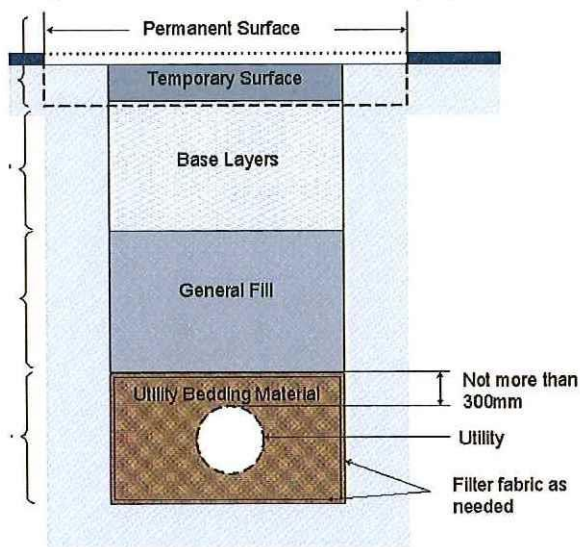


Figure D 5: Fill Layers in Trenches

2. The bedding material must be specified by the Utility Operator and placed:

- a) in a loose state (sand must be dampened) and tamped to achieve compaction and surround of Utility; or
- b) in a fluidised state where specifically approved by the FRA; and
- c) to a depth of not more than 300 mm above the top of the Utility Structure, unless a variance is agreed between the Utility Operator and FRA.

3. General fill:

- a) in Road Carriageway, Shoulder and Footpath, general fill must be well graded granular material free of deleterious material with maximum stone size 75mm;
- b) where the Utility Operator uses suitable excavated material in Berms, the required compaction standards must be achieved (refer Section D5).

4. Base layers – Road Carriageways: where there is more than one base layer:

- a) the lower base layer (sub-base) material must be well-graded crushed granular, with maximum aggregate size 65mm, and a controlled grading curve and weathering and crushing resistance; and
- b) the upper base layer (basecourse) for the Carriageway, or the whole basecourse if it is a single layer, must comply with the FRA's has approved basecourse product specification.

5. Base layers – Footpaths: must be well graded GAP40 granular material.

- a) Berms generally do not need a separate base layer other than general fill.
- b) Prior to backfilling, excavated material that is unsuitable for backfilling must be removed from site and not be used to backfill Trenches.

D5. Backfill Placement and Compaction

1. Placement and compaction of all layers must:

- a) be in layers not exceeding 200 mm (solid) thickness;
- b) allow for appropriate compaction methods around the Utility Structures;
- c) have mechanical compaction completed for each subsequent layer in turn; and
- d) ensure lapping of any geotextile material in accordance with the manufacturer's specification.

2. During backfilling and compaction:

- a) care must be taken to ensure no damage occurs to Utility Structures during compaction; and
- b) if over break or other disturbance of the pavement layers occurs, the surface of such areas must be re-cut, excavated and backfilled in compliance with this Section.

3. Compaction must:

- a) be carried out using suitable plant and equipment to achieve the specifications in Section D8; and
- b) be confirmed by a Clegg hammer, or an agreed alternative, for sub-base and deeper fill.

4. When reinstating excavated concrete layers in the Carriageway, the Utility Operator must ensure that the new concrete:

- a) retains at least the performance characteristics of the existing layer;
- b) is installed at a minimum depth of 250mm;
- c) has a 28-day compressive strength of 20 MPa;
- d) interlocks with the old concrete using R20 steel reinforcing bars placed centrally perpendicular to the face at 500 mm spacing along all joint faces. The bars must be bonded 250 mm into the existing concrete and extend into the new concrete a minimum of 250mm. The concrete must be reinforced with 665 steel mesh placed centrally. Where expansion or contraction joints are affected these must be reinstated; and
- e) has a coarse broom finish surface and matches the line and crossfall of the Road surface, with allowance for asphalt overlay to be placed to the same thickness as on adjacent pavement as appropriate.
- f) has a coarse broom finish surface and matches the line and crossfall of the Road surface, with allowance for asphalt overlay to be placed to the same thickness as on adjacent pavement as appropriate.

5. When reinstating concrete in any other areas, the concrete used should be of similar type and finish as the adjacent concrete.

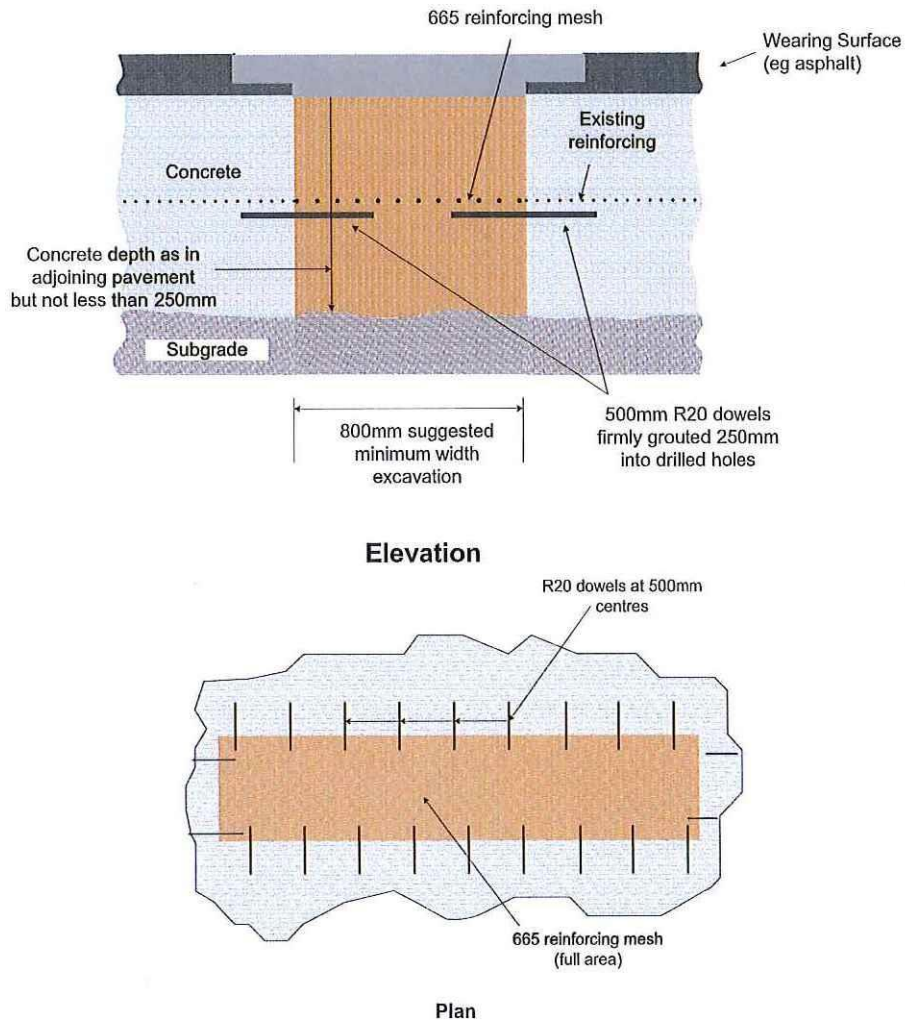


Figure D 6: Concrete Road Carriageway

D6. Base layers – Foam Bitumen Pavements

- a) the carriageway constructed from Foamed Bitumen Basecourse shall comply with the attached diagram for *Foamed Bitumen Basecourse Trench Reinstatement Details*

D.8 Compaction Testing

1. Compaction testing must be carried out:

- a) by a suitably qualified person
- b) using equipment with a current calibration certificate;
- c) as specified in the Reasonable Conditions and Quality Plan; and
- d) as necessary to achieve the standards in Figure D7 at all depths of any backfill.

A lesser compaction for sand may be approved by the FRA if it can be clearly shown that the compaction is at least as much as the undisturbed sand in the adjoining ground. In the case of low volume roads a minimum Clegg Impact Value (CIV) of 55 for carriageway basecourse may be accepted by the FRA as an alternative to specifying a maximum dry density (MDD).

2. A testing regime must be carried out as agreed with the FRA, or, in the absence of any agreement, as outlined below:

- a) for Trenches in Berms, tests at a rate of at least one test per layer of backfill per 15m of Trench, with a minimum of two tests;
- b) for Trenches in Carriageways or under Footpaths, tests at a rate of at least one test per layer of backfill per 5m of Trench with a minimum of two tests;
- c) where the excavated area is greater than 0.5m² and less than 5m², tests at a rate of one test per backfill layer or, for larger excavations, one test per 5m²;
- d) all test locations must be uniformly spaced in the pavement; and
- e) tests must be carried out on every lift of each tested backfill layer to be assured of proper compaction of all of the backfill.

3. The above specifications do not remove the responsibility of the Utility Operator to ensure that no settlement occurs.

Also note that:

- Subject to satisfactory test results the above frequency of testing may be reduced with the prior agreement of the FRA;
- The Clegg hammer may be used for testing of general fill and base layers but not for the upper base layer of Carriageways;

4. The Utility Operator must retain the test records and make them available to the FRA on request.

	Carriageway	Footpath	Berm
Basecourse	98% MDD	IV 25	N/A
Sub-base	IV 35	IV 25	N/A
Deeper Fill	IV 25	IV 15	IV 10

IV = impact value

Figure D 7: Compaction Testing

Appendix E Surface Layer Reinstatement

E1. General Requirements

1. The Utility Operator must use suitably qualified and experienced persons for the construction of Road surfacing
2. The Utility Operator must, unless otherwise agreed with the FRA:
 - a) not open Trenched sites to Traffic until temporary or permanent resurfacing is in place;
 - b) not use temporary resurfacing unless permanent resurfacing is not practicable; and
 - c) have permanent resurfacing in place within seven days of completion of backfill or temporary surfacing.
3. The Utility Operator must ensure the reinstated surfacing:
 - a) is installed in clean, long, straight lines parallel to the kerb or Footpath, or for transverse Trenches, perpendicular to the kerb and channel;
 - b) uses materials that match the surrounding surface in type, quality, texture, skid resistance and strength;
 - c) matches at least the pre-existing surface in smoothness or ride quality for vehicles (vertical movements);
 - d) has a finished surface level and adjoining surface shaped to avoid ponding of surface water, such that the deviation of the surface from a 3m straight edge does not exceed 5mm;
 - e) does not vary more than 5mm in any location from the original surface;
 - f) continuously graded towards stormwater drainage channels or gully entries; and
 - g) has no lips greater than 3mm high in pedestrian surfaces.
4. At the FRA's request, the Utility Operator must carry out Road surface roughness testing on a before-and-after basis for large projects.

E2. Reinstatement near a Joint or Edge

If the edge of the Trench in a Footpath or Road Carriageway is within 1m of a joint or existing edge of the pavement, then the existing pavement must be replaced to that joint or edge as part of the surface reinstatement, and cut accordingly.

This requirement is commonly referred to as the '1 m rule' and is illustrated in Figure E 1 and Figure E 2. However the FRA may waive the requirement to extend reinstatement to a construction joint in a concrete surface when the concrete is significantly cracked.

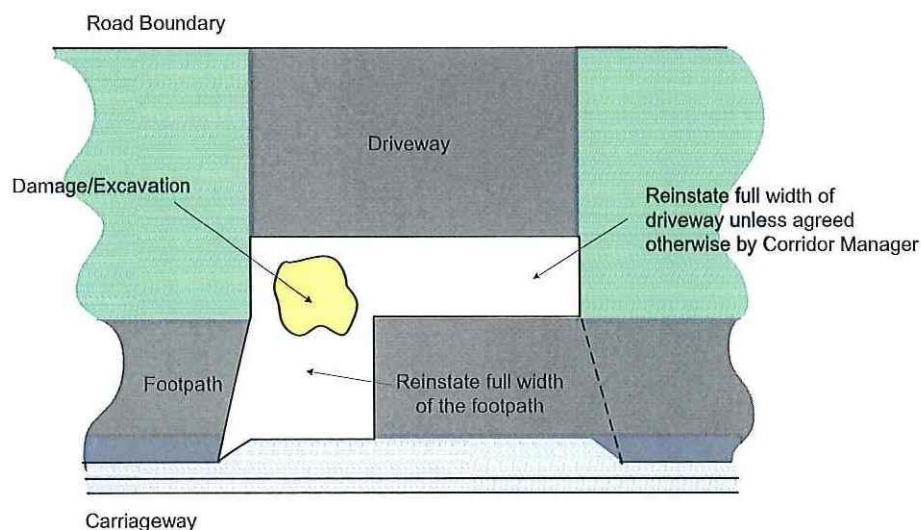


Figure E 1: Excavation in Footpath or Driveway

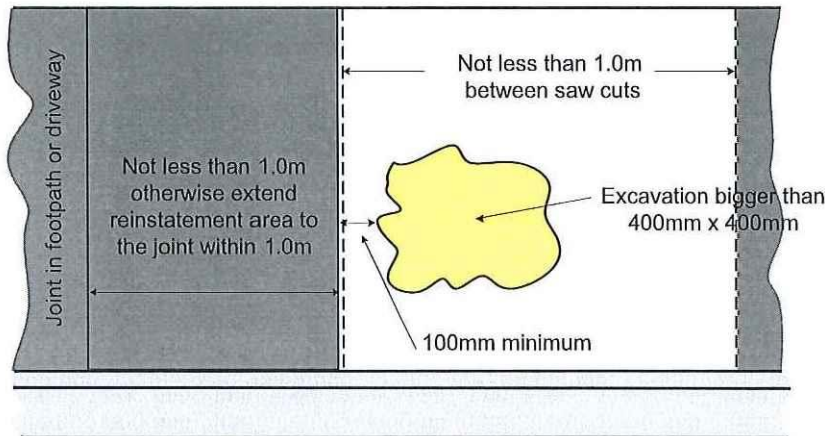


Figure E 2: Reinstatement of Concrete Path or Driveway

E3. Temporary Surface Reinstatement

1. Temporary surfaces constructed by the Utility Operator must be:
 - a) 'cold mix' asphalt or an equivalent approved by the FRA;
 - b) at a surface level must be between 5mm below and 15mm above the original surface level, with a lip not greater than 5mm in any part of the surface;
 - c) laid in a manner and to a depth that is durable for both vehicular and pedestrian use;
 - d) maintained by the Utility Operator until permanent surfacing has been undertaken, including undertaking any repairs as soon as possible if damaged; and
 - e) fully removed prior to reinstatement with permanent materials.
2. Where the Utility Operator considers that special circumstances (but not at pedestrian crossings) require leaving an area of Road Carriageway and Footpath without a proper temporary surface, the Utility Operator must:
 - a) seek prior agreement from the FRA;
 - b) provide additional 'Uneven Surface' and 'Speed Restriction' signage;
 - c) maintain the surface within agreed tolerances of the surrounding surface level; and
 - d) reinstate the surface with a proper temporary surface within one Working Day or as agreed with the FRA.
3. Where steel plates are used, they must:
 - a) be in place for no more than seven days or as agreed with the FRA;
 - b) have their use approved by the FRA;
 - c) be securely fixed in place to prevent dislodgement and to not be a nuisance or danger to passing Traffic (vehicles, pedestrians, cyclists) users of local properties;
 - d) be skid resistant, secured and cushioned to prevent them from rocking, moving or creating noise;
 - e) be of sufficient strength and quality to support imposed Traffic loading;
 - f) have appropriate signposting with temporary speed restrictions and hazard warnings
 - g) have a ramp formed and filleted to ensure safe pedestrian and vehicular access; and
 - h) have any temporary markings required by the FRA.

E4. Specific Requirements for Different Surface Types

1. Asphaltic concrete surfaces must be constructed as follows:
 - a) not more than 75mm thick;
 - b) laid on a waterproof membrane seal coat;
 - c) be specifically designed and constructed to restore the structural integrity of the adjacent surface
 - d) surface mix design shall be undertaken to provide a surface that restore the structural integrity of the adjacent surface and is suitable for the traffic loading applied
 - e) material laid and compacted to provide a surface that restore the structural integrity of the adjacent surface and is suitable for the traffic loading
 - f) where the asphaltic concrete is laid in-situ for the wearing layer, the target air voids must meet any conditions in the CAR;
 - g) the base course layer swept free of all loose material before the membrane seal is applied;
 - h) if the asphalt concrete surface will be deferred for some time, provide a first coat seal consisting of a hot bitumen or emulsion seal coat sprayed on the edges of the existing pavement and the surface of the base course at a residual bitumen application rate of 1l/m² with a 10mm chip surface; and
2. Structural asphalt concrete surfaces must:
 - a) be specifically designed and constructed to restore the structural integrity of the original pavement; and
 - b) have reinstatement details approved by the FRA.
3. Chip seal Carriageways must:
 - a) be reinstated using a two coat chip seal; the first coat must be a coarse grade chip (e.g. Grade 3) and the second coat a finer grade (e.g. Grade 4 or 5) to visually blend with the existing adjacent surfacing. The second coat must overlap the existing surface by not less than 100mm;
 - b) where the area being reinstated is adjacent to a concrete channel, the new seal must overlap the channel by a minimum of 50mm

E5. Special Paving, Amenity Areas and Decorative Areas

1. Special Paving Areas must:
 - a) be reinstated by a Contractor experienced in working with the medium required;
 - b) match the original standard, with the same quality, texture, type, colour and material of the existing pavement and minimal visible evidence of the Trench reinstatement;
 - c) have the whole panel replaced, where the paving is laid out in panels;
 - d) match any special treatments used in the existing construction (e.g. geogrid membranes, chip seal, high friction surface, grooved asphaltic concrete); and
 - e) use alternatives agreed with the FRA, where matching materials are not available.

Some treatments, such as geogrids, need extended excavation to properly anchor the product.

2. Amenity and special decorative areas must:
 - a) be reinstated by a Contractor approved by the FRA;
 - b) match the original standard, with the same quality, texture, type, colour and material as the existing pavement with minimal visible evidence of the Trench reinstatement; and
 - c) have any urban design features, architectural finishes, gardens, artworks and landscaping properly reinstated to the pre-existing condition.

E6. Road Markings, Signs and Furniture

1. The Utility Operator must ensure that road markings are:
 - a) recorded prior to being impacted by Works, including description of markings by type, their location and any special items;
 - b) located by way of an offset at the side of the Road to enable accurate remarking; and
 - c) reinstated prior to completion of Works and, in urban areas, preferably prior to reopening the lane or road to Traffic.

The Utility Operator should take photographic evidence of pre-existing markings where significant impacts on markings are expected. The FRA may hold records of existing road markings and, if so, should make this available as required.

2. The Utility Operator must ensure that temporary road markings, where required for Traffic safety purposes, are:
 - a) of an approved type and suitable for the purpose as specified by the FRA;
 - b) in place prior to Traffic usage of the Road surface areas affected;
 - c) in an effective condition for the period of use until the permanent situation is established;
 - d) fully removed prior to re-opening the area;
3. The Utility Operator must ensure that signs, furniture and lids:
 - a) are protected and maintained during the Work;
 - b) are replaced if they become damaged or lost prior to completion of the Work; and
 - c) have utility chamber lids and covers restored to the finished road level.

The FRA may carry out reinstatement of signs and markings on behalf of the Utility Operator and at the Utility Operator's cost, if agreed between both Parties or if not reinstated within a reasonable timeframe.

4. The Utility Operator must ensure that fire hydrants boxes are ;
 - a) are not covered over during Works;
 - b) remain identifiable during Works;

Appendix F Colour Coding System and Minimum Depths for Buried Services in the Road Corridor

F1. General Requirements

The colour coding and minimum depths for buried Services in the Road Corridor are shown below.

Service	Duct or Pipe Colour*	Minimum Depth to Top of Utility	
		Carriageway	Footpath / Verge
Electricity – Low Voltage	Black	600mm	450mm
Electricity – High Voltage	Red	750mm	450mm
Street lighting and traffic control cables	Orange	600mm	450mm
Water	Blue	750mm	750mm
Sewerage / stormwater	Black		300mm
Gas	Yellow	750mm	750mm
Telecommunications	White or grey	450mm	250mm
Cable Television	Green	450mm	250mm
Oil / Fuel Pipelines	Black	900mm	900mm

*It is recommended that when installing new apparatus appropriate marker systems are laid some distance above the plant. Insulated wire or tapes incorporating a metal strip or passive electronic marker systems may be laid as an aid to the location of non-metallic pipes and ducts

Where practicable pipes and cables which cross the carriageway should be laid in ducts for ease of future maintenance and the avoidance of congestion



Fiji Roads Authority

