

TRANSPORT FOR NSW (TfNSW)

QA SPECIFICATION G7

UTILITY ADJUSTMENT

NOTICE

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REVISION REGISTER

Ed/Rev Number	Clause Number	Description of Revision	Authorised By	Date
Ed 1/Rev 0		First issued.	GM, CPS	09.09.13
Ed 1/Rev 1	1.3.1	New definitions added.	GM, CPS Peter Letts	07.03.14
	2.2.2	Planning and scheduling to allow for temporary utility adjustments added.		
	2.2.6	Measures for marking locations of identified utilities on ground added to Utility Management Plan.		
	2.2.9	Reminder to contractor to avoid gaps or overlaps in division of responsibilities in subcontracts between Contractor and utility adjustment subcontractor.		
	2.3	“Existing utilities” changed to “constructed utilities” to include both existing and newly installed utilities.		
	2.3.4	New sub-clause on re-compaction of backfill in trenches placed by others.		
	3.1	2nd Hold Point: submission details expanded to include quotations from 3 accredited constructors, for Sydney Water asset adjustment works.		
	3.2	Clarification on how payment for excavation and backfilling for shared trenches is applied added.		
	3.3	Cross reference made to clause 10.2.1 for disposal of spoil added.		
	3.4.2	“flowable fill” replaced by “14:1 sand cement mix”.		

Ed/Rev Number	Clause Number	Description of Revision	Authorised By	Date
Ed 1/Rev 1 (cont'd)	3.4.2	<p>Payment for road or waterways crossing changed to “appropriate pay item relating to the particular utility adjustment”.</p> <p>Provision added for “extra over” rate where sand cement backfill is directed in place of ordinary backfill.</p>		
	5.1	<p>Water Supply Code and Sewerage Code version reference numbers updated.</p>		
	5.3	<p>New clause formed from merger of previous clauses 5.3 and 5.4.</p> <p>Submission by Contractor of tender evaluation report for Sydney Water asset adjustment subcontractor no longer required.</p> <p>Previous restriction on engaging subcontractor until Sydney Water has endorsed recommended subcontractor deleted.</p>		
	6.1.1	<p>Contractual arrangement with Telstra changed to that of <i>Preferred Subcontractor</i>.</p> <p>Subcontract to use Telstra’s terms and conditions added.</p>		
	6.2.1	<p>Contractual arrangement with Optus changed to that of <i>Preferred Subcontractor</i>.</p> <p>Subcontract to use Optus’s terms and conditions added.</p>		
	7.1.1	<p>Definition of Jemena’s Pipeline Land added.</p>		
	10.1	<p>New clause on marking on kerbs to indicate location of utilities added. Subsequent clauses renumbered.</p>		
	10.3.1	<p>Cost of disposal of surplus excavated materials deemed to be included in rates generally.</p>		
	10.5	<p>Clarification added of when the new utility asset becomes the property of the utility owner.</p>		
	Annex B	<p>New Pay Item P4 for sand cement backfill added.</p> <p>Previous Pay Item P4 on road or waterway crossing using trenchless techniques deleted.</p> <p>Clause cross references on coverage of pay item inserted under Pay Items P2, P3 and P4.</p> <p>Comment added under Pay Items P5, P6, P8 and P9 on Lump Sum pay items for road or waterways crossings.</p>		

Ed/Rev Number	Clause Number	Description of Revision	Authorised By	Date
Ed 1/Rev 2 (cont'd)	Annex D Annex E Annex M	Planning Documents updated. Utility owner's contact person details updated. Referenced documents updated.		
Ed 1/Rev 3	1.3.1 8.1.6 Annex C	Definition for "traffic signal asset" added. Requirement added for records to be kept on access made to any traffic signal asset. Identified Records updated.	MCQ	30.10.18
Ed 1/Rev 4	2.1.2	The name "NSW Streets Opening Conference" updated to "NSW Streets Opening Coordination Council".	MCQ	27.03.19
Ed 1/Rev 5	8.1.1 8.1.2 Annex A Annex M	Clause reworded to require traffic signals adjustment work to comply with spec TS101. Requirement on prequalified contractor reworded. Previous clause 8.1.3 titled "Principal Supplied Materials" and clause 8.1.5 titled "Power Supply, Telecommunication Connection and SCATS" deleted. Remaining sub-clauses renumbered accordingly. Previous Annex A5 titled "Traffic Signals" deleted. Referenced documents updated.	MCQ	14.10.19
Ed 1/Rev 6	Global	References to "Roads and Maritime Services" or "RMS" changed to "Transport for NSW" or "TfNSW" respectively.	DCS	22.06.20
Ed 1/Rev 7	Annex B	Previous sub-clause 8.1.2 on prequalification of traffic contractors deleted, as this is covered by spec TS101. Subsequent sub-clauses renumbered. Statement added that payment for adjustment work on traffic signals will be made under specs TS101 or G10 as appropriate.	MCQ	04.02.21

GUIDE NOTES

(Not Part of Contract Document)

Use of G7

Specification G7 has been written primarily for use on utility adjustment works in the Sydney metropolitan and Illawarra region, where the water and wastewater utility owner is Sydney Water.

For utility adjustment works in other areas, Clause 5 will need to be amended to suit the requirements of the local water and wastewater utility owner.

Sections of the specification are shown in boxed text. The Tender Documenter must insert in these sections the requirements that are specific to the project. Delete the boxed text after customisation.

The Tender Documenter must also complete Annexure G7/A.



UTILITY ADJUSTMENT

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VERSION FOR: DATE:

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FOREWORD

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REVISIONS TO PREVIOUS VERSION

This document has been revised from Specification TfNSW G7 Edition 1 Revision 6.

All revisions to the previous version (other than minor editorial and project specific changes) are indicated by a vertical line in the margin as shown here, except when it is a new edition and the text has been extensively rewritten.

PROJECT SPECIFIC CHANGES

Any project specific changes are indicated in the following manner:

- (a) Text which is additional to the base document and which is included in the Specification is shown in bold italics e.g. ***Additional Text***.
- (b) Text which has been deleted from the base document and which is not included in the Specification is shown struck out e.g. ~~Deleted Text~~.

TfNSW QA SPECIFICATION G7

UTILITY ADJUSTMENT

1 GENERAL

1.1 SCOPE

This Specification sets out the requirements for undertaking utility adjustment works, including:

- (a) electricity and street lighting;
- (b) water supply and wastewater;
- (c) telecommunications;
- (d) gas;
- (e) TfNSW traffic signals and intelligent transport system infrastructure.

1.2 STRUCTURE OF THE SPECIFICATION

This Specification includes a series of annexures that detail additional requirements.

1.2.1 Project Specific Requirements

Project specific details of work are given in Annexure G7/A.

Details of locations where there is a potential for conflict during construction, arising from congestion of multiple utilities at those locations, and locations where it is not practicable to accurately determine the position of the existing utilities at the design stage, are given in Annexure G7/A1.2.

1.2.2 Measurement and Payment

The method of measurement and payment must comply with Annexure G7/B.

1.2.3 Schedules of HOLD POINTS and Identified Records

The schedules in Annexure G7/C list the **HOLD POINTS** that must be observed. Refer to Specification TfNSW Q for the definition of **HOLD POINTS**.

The records listed in Annexure G7/C are **Identified Records** for the purposes of TfNSW Q Annexure Q/E.

1.2.4 Planning Documents

The PROJECT QUALITY PLAN must include each of the documents and requirements listed in Annexure G7/D and must be implemented.

Where the Drawings refer to the manufacturer's recommendations, include them in the PROJECT QUALITY PLAN.

1.2.5 Referenced Documents

Unless specified otherwise the applicable issue of a referenced document, other than a TfNSW Specification, is the issue current at the date one week before the closing date for tenders, or where no issue is current at that date, the most recent issue.

Standards, specifications and test methods are referred to in abbreviated form (e.g. AS 1234). For convenience, the full titles are given in Annexure G7/M.

1.3 DEFINITIONS AND ABBREVIATIONS

1.3.1 Definitions

The terms “**you**” and “**your**” mean “the Contractor” and “the Contractor’s” respectively.

The “**Local Electricity Distributor**” refers to the entity stated in Annexure G7/A2.

References in the Local Electricity Distributor’s Drawings to the term “**developer**” means “the Principal” or TfNSW.

The definitions given in AS 5488 also apply to this specification, unless overridden by the definitions given below.

“**Accredited constructor**” means a constructor that has been accredited by the utility owner to undertake construction work on its utility asset, and includes the Local Electricity Distributor’s Level 1 Accredited Service Provider (refer Clause 4.2), Sydney Water Listed Providers – Constructors (refer Clause 5.1), and Telstra or Optus Industry Specialist (refer Clause 6.1 and 6.2).

“**Inadequate foundation material**” is material beneath or adjacent to the proposed utility structure(s), which the Principal deems to be of insufficient strength to support the structure and loads on the structure, or material whose characteristics the Principal deems would adversely affect the performance or construction of the structure.

“**Joint telecommunications trench**” means a common trench in which the utilities of different telecommunications utility owners such as Telstra and Optus are installed either side by side or one above the other.

“**Potholing**” is defined in AS 5488 as an “excavation technique to locally expose a subsurface utility at a point”.

“**Premises connections**” refer to the physical connection between the distribution network of the utility owner and the private domestic or commercial or public facility premises.

“**Redundant utility infrastructure**” is defined in AS 5488 as utility infrastructure that is out of service, abandoned, decommissioned or not in use.

“**Shared trench**” is defined as a trench in which normally unrelated utilities such as gas and telecommunications, or electricity and telecommunications, are installed either side by side or one above the other.

“**Traffic signal asset**” means the electrical and electronic assets and systems which support the Sydney Coordinated Adaptive Traffic System (SCATS), including all assets which house, or are otherwise necessary for the functioning of, those assets.

“**Utility**” is defined in AS 5488 as “a publicly, privately or jointly owned and operated entity, located on either public or private property, the purpose of which is to transport for either the public or a private party a service or commodity such as electricity, communications, gas, light, oil, power, television, water and waste by means of cables, conduits, ducts, fibre optics, pipes and wires and includes related objects, such as access chambers, pits, valves and other appurtenances”.

“**Utility adjustment works**” include both modification and/or relocation of existing utility infrastructure, and installation of new utility infrastructure. Existing utility infrastructure can be either above ground or underground. It also includes works for protection of existing utility infrastructure.

“**Utility owner**” includes both the owner and operator of the assets associated with the utility service.

2 COMMON GENERAL REQUIREMENTS

2.1 GENERAL RESPONSIBILITIES

2.1.1 General

Carry out the utility adjustment works in accordance with the Drawings and Specifications, and comply with the applicable standards, specifications and any specific requirements of the respective utility owners.

Where it is a requirement of a utility owner, obtain its written approval prior to carrying out adjustment works on its utility asset.

2.1.2 Space Allocation for Utilities

Comply, insofar as is practicable, with the requirements of the “Model Agreement for Local Councils and Utility/Service Providers” and the “Guide to Codes and Practices for Streets Opening” (“the Streets Opening Guide”) published by the NSW Streets Opening Coordination Council.

Where the actual position of utilities found on the Site does not accord with the individual space allocation shown on the Drawings or given in the Streets Opening Guide, survey the actual positions and advise the Principal immediately. Submit the details of the survey together with your proposals for resolving the issue to the Principal for the Principal’s direction.

Where the Drawings do not show a shared trench or a joint telecommunications trench for installing utilities, but where you can identify potential efficiencies from the use of a common trench and agreement can be reached with the affected utility owners to install their utilities in a common trench, submit your proposal to the Principal for the Principal’s direction.

2.1.3 Work Health and Safety

Implement Work Health and Safety measures, including preparation of Safe Work Method Statements, in accordance with Specification TfNSW G22.

Provide health and safety induction to all workers on the Site, including those undertaking concurrent works (refer Clause 2.2.1).

2.1.4 Traffic Management

Provide traffic management in accordance with Specification TfNSW G10.

Maintain access to residential and commercial premises impacted by your utility adjustment works.

2.1.5 Environmental Protection

Implement appropriate environmental control measures in accordance with Specifications TfNSW G36 and TfNSW G38.

2.2 PLANNING AND COORDINATION

2.2.1 Concurrent Works by Utility Owners

Concurrent works to be carried out by utility owners during the duration of the Contract, if any, are detailed in Annexure G7/A1.1.

Plan and coordinate your utility adjustment work with any such concurrent works carried out directly by the various utility owners, and with your other Work Under the Contract.

Notify the Principal immediately of any issues related to the concurrent work which may impact on your Work Under the Contract.

Payment for the coordination of concurrent works, including attendance upon the utility owners or their contractors undertaking concurrent works, is made under Pay Item G7P1.

2.2.2 Program

Plan and schedule your utility adjustment work, including any temporary utility adjustments that may be required, to accord with the construction/traffic stagings required for Work Under the Contract.

Allow in your program for any construction times required by the utility owner, including lead times required for design review and approvals, procurement and delivery of components, shutdown notification periods, scheduled cutover periods, etc.

2.2.3 Utility Management Plan

Provide, as part of PROJECT QUALITY PLAN, a Utility Management Plan (UMP) for the Work Under the Contract. The UMP must include, where appropriate, the following elements:

- (a) Name and responsibilities of the Utility Works Coordinator (refer Clause 2.2.4); where a full time Utility Works Coordinator is not required, the name(s) of the person(s) undertaking the duties of the Utilities Works Coordinator.
- (b) Site management structure for managing the utility adjustment works.
- (c) Detailed program for utility adjustment works, showing proposed shutdown and cutover times (refer Clause 2.2.2).
- (d) Procedures for interfacing with concurrent works carried out directly by utility owners (refer Clause 2.2.1).
- (e) Measures to locate, identify if necessary, and protect any existing or newly installed utilities from damage, including marking their locations on the ground (refer Clause 2.3.3).
- (f) Procedures for procurement of accredited constructors (refer Clauses 4.2, 5.3, 6.1.1, 6.2.1, 7.1.2 and 8.1.2).
- (g) Procedures for generating internal site specific permits to work near utilities.
- (h) Safe Work Method Statements for working near, or on, the utilities, in accordance with Specification TfNSW G22.

- (i) Construction Work Method Statements for the various utility adjustment work.

2.2.4 Contractor's Utility Works Coordinator

If required in Annexure G7/A1.3, provide a suitably qualified and experienced full time Utility Works Coordinator for the duration of the utility adjustment works.

The Utility Works Coordinator must have at least 5 years relevant experience in utility adjustment works and have experience in the management of utility adjustment contractors.

The Utility Works Coordinator's duties include the following:

- (a) liaising with the Principal and the utility owners and convening regular meetings as required;
- (b) checking for potential conflicts between the proposed utilities and existing utilities and structures;
- (c) engagement and management of subcontractors undertaking the utility adjustment works;
- (d) coordinating the various utility adjustment works (including utility adjustment works carried out directly by the utility owners) with the rest of the Work Under the Contract;
- (e) managing any temporary utility adjustments required, whether as part of construction staging or otherwise;
- (f) notifying the utility owners for shutdowns and cutovers;
- (g) negotiations with property owners on utility adjustment matters.

2.2.5 Communication with Utility Owners

The utility owners' contact person details are listed in Annexure G7/E.

Within 15 working days after the Date of Contract, organise start-up meetings with each utility owner to confirm their requirements and obtain their concurrence to the utility adjustment works, and to coordinate the utility adjustment works, including those carried out directly by the utility owner, with the rest of the Work Under the Contract.

Convene regular meetings with each utility owner to coordinate and assess the progress of the work.

Invite the Principal to the meetings. Record the minutes of these meetings and distribute them to all attendees and the Principal within 3 working days after the meeting.

Keep records of all communications with each utility owner.

2.2.6 Notices to Utility Owners

Any notices to utility owners must be in writing, and be specific to a particular component of the utility infrastructure to be adjusted or near which work will be undertaken. Provide a copy to the Principal of any such notices.

2.2.7 Variation Work Requested By Utility Owners

Where a utility owner requests you to carry out work which you consider to be a Variation under the Contract, then prior to carrying out the work, notify the Principal in writing of that request. Do not carry out that work without first obtaining the Principal's agreement.

2.2.8 Cooperation with Utility Owners' Staff

Provide access required by the utility owners to construct and/or maintain their utilities located within the Site, or to inspect the completed utility adjustment works. Cooperate with, and comply with, the instructions issued by utility owners, subject to the qualification stated in Clause 2.2.7.

2.2.9 Subcontracts

In any subcontract(s) that you have with accredited constructor(s), set out clearly the division of responsibilities between you and your subcontractor(s) to avoid any gaps or overlaps, particularly on matters such as excavation and backfilling of trenches.

2.3 CONSTRUCTED UTILITIES

2.3.1 Locate Existing Utilities

Prior to commencement of construction work, contact Dial Before You Dig and obtain the plan locations of all existing utilities.

Carry out investigations, including potholing or other non-destructive digging as may be necessary to locate and identify all existing utilities, including any premises connections affected by the Works whether shown on the Drawings or not. Locating existing Telstra's underground infrastructure must be undertaken by Telstra accredited Plant Locators.

Where utilities of unknown source are revealed or detected in your investigations, confirm with the utility owners whether such detected utilities are live or not. Where such utilities are live and conflict with the Works, deal with the conflict in accordance with Clause 2.3.2.

2.3.2 Potential Conflicts

Determine if there are locations other than those shown on the Drawings, including the locations detailed in Annexure G7/A1.2, where the proposed utilities conflict with other existing or proposed utilities or structures which are not shown on the Drawings but identified on the Site.

Where conflicts exist, determine the extent of the conflict and advise the Principal immediately. Submit details of the conflict including any associated survey results and your proposals for resolving the conflict to the Principal for the Principal's direction.

2.3.3 Protection of Constructed Utilities

Take all measures necessary to protect or prevent damage to any existing or newly installed utilities. Comply with any vibration limits or other requirements specified under the Contract or set out by the utility owners to prevent damage from your activities to existing underground and overhead utilities.

If you damage any existing utility, notify the relevant utility owner immediately and arrange for repairs to be effected as soon as practicable. The full cost of such repairs, including the cost of any additional reinstatement necessary and any charges or penalties imposed by the owner of the damaged utility will be borne by you.

2.3.4 Recompaction of Backfill In Trenches

Backfill in trenches where utilities have previously been installed by others may require re-compaction by you to meet the requirements of Specification TfNSW R11 or R44. Such trenches may be water charged, and any redundant conduits or pipes left behind in the trenches may contain water.

2.4 ADJUSTMENTS TO SUIT YOUR CONSTRUCTION METHOD

If you need to undertake temporary utility adjustments to suit your construction method, comply with the requirements of the utility owner for the design and installation of the temporary adjustments, including engagement of a designer and/or constructor acceptable to the utility owner.

Any such adjustments are deemed to be paid under Pay Item G7P1. You are not entitled to any extensions of time for utility adjustments to suit your construction method, including any delays in design approval by the utility owner.

2.5 SHUTDOWNS AND RECONNECTIONS

2.5.1 Shutdowns

Plan and carry out your utility adjustment work in such a manner that you minimise disruption to the community, utility owners and road users. Provide the required notices to the community in accordance with Specification TfNSW G36, in circumstances where such notices are not provided by the utility owner.

Times for shutdowns for cutovers of the utility services may be restricted by the utility owner. Program your works to suit the utility owner's permitted shutdown times.

2.5.2 Reconnections

After cutover to a new utility asset, promptly reconnect services to premises supplied by that asset.

Consult with and obtain agreement from property owners regarding the locations of the reconnection points or poles or other infrastructure, and any minor adjustments to gardens or pathways within the property, which are required as a consequence of the reconnection.

3 COMMON CONSTRUCTION REQUIREMENTS

3.1 COMMENCEMENT OF UTILITY SERVICES ADJUSTMENT WORK

HOLD POINT

Process Held: Commencement of excavation for utility adjustment work.

Submission Details: At least 10 working days prior, provide notification that all existing utilities have been identified, their locations and the set out locations of proposed utilities have been marked on the ground, and submit associated plans showing their locations, including potholing and survey results, details of any potential conflicts, and details of any additional utility services adjustment required.

Release of Hold Points: The Principal will consider the submission and may inspect the set out locations of the proposed utilities and/or request further information prior to authorising the release of the Hold Point.

HOLD POINT	(For utility adjustment work not managed directly by the utility owner)
Process Held:	Commencement of utility adjustment work other than excavation.
Submission Details:	At least 5 working days prior, submit the name of the contractor carrying out the utility adjustment work and evidence of accreditation, detailed construction work plan indicating when shutdowns and/or cutovers are scheduled, details of any proposed temporary service connections, and evidence of the utility owner's approval for the adjustments. For Sydney Water asset adjustment works, where required in Annexure G7/A, submit also copies of quotations from at least three Sydney Water accredited Constructors (refer Clause 5.3).
Release of Hold Point:	The Principal will consider the submitted documents and may request further information prior to authorising the release of the Hold Point.

3.2 SHARED TRENCH OR JOINT TELECOMMUNICATIONS TRENCH

Where the utilities are to be placed in a shared trench or a joint telecommunications trench (refer Clause 2.1.2), arrange with the respective individual utility owners to carry out the excavation and subsequent backfilling on their behalf, into which the utility owners (or their contractors) can then install the conduits/pipes for their respective utility services.

Where the excavation and backfilling is carried out by you, payment for this work will be made under Pay Item G7P2. Where the excavation and backfilling is carried out by one of the accredited constructor(s) acting as your subcontractor(s), payment for this work will be made under the relevant pay items for the subcontracted works.

If excavation and backfill is carried out by you, but provision has been made for excavation and backfilling in the rates or prices of the works carried out by the accredited constructor(s) acting as your subcontractor(s), a deduction will be made to the payments for work to one or more of the subcontractors, as appropriate.

3.3 INADEQUATE FOUNDATION MATERIAL

Notify the Principal of any area of utility adjustment work which contains material that you considered to be inadequate to support the conduits/pipes or pits for the utility services. If the Principal agrees that the material is inadequate foundation material, or any areas of the foundations are so deemed by the Principal, the Principal may direct the removal and replacement of this material.

Dispose of such material in accordance with Clause 10.3.1.

Payment for this work will be made under Pay Item G7P3.

3.4 ROAD OR WATERWAY CROSSINGS

3.4.1 Work Method Statement

At least 3 working days prior to commencement of excavation to provide a crossing for a utility at a road or waterway, provide a Work Method Statement to the Principal giving full details of how you intend to carry out the excavation, whether by open trenching or by trenchless techniques, and including details of any traffic control or environmental protection measures required.

3.4.2 Road Crossings By Open Trenching

Where installation of conduits/pipes crossing a new road pavement is by open trenching and where practicable, carry out trenching and backfilling prior to construction of the pavement at these locations in accordance with the requirements of TfNSW R11, and TfNSW R44 if appropriate.

Where the crossing is of an existing road pavement, backfill the trench up to the underside of the pavement layers with a 14:1 sand cement mix unless shown otherwise on the Drawings or directed otherwise by the Principal. Restore the pavement to a standard equivalent to that of the existing adjoining pavement.

Payment for this work will be made under the appropriate pay item relating to the particular utility adjustment.

Where the Principal directs the use of sand cement backfill in lieu of the backfill type shown on the Drawings, the sand cement backfill will be paid as an extra over amount under Pay Item G7P4.

3.4.3 Road or Waterways Crossings Using Trenchless Techniques

Where open trenching is not practicable for the crossing, or where shown on the Drawings, install the conduits/pipes using trenchless techniques involving boring or drilling.

After installation of the outer casing, fill any gap between the borehole and the outer casing with a grout using a technique acceptable to the Principal.

Payment for this work will be made under the appropriate pay item relating to the particular utility adjustment.

3.5 INSTALLED CONDUITS/PIPES

Keep the inside of the installed conduits/pipes free from debris and clear the inside of the conduits/pipes of water prior to installation of the utility.

4 ELECTRICITY MAINS AND STREET LIGHTING

4.1 APPLICABLE STANDARDS AND SPECIFICATIONS

4.1.1 Electricity Mains

When carrying out work on the electricity network, comply with the standards and specifications of the Local Electricity Distributor.

4.1.2 Street Lighting

Construct the street lighting works in accordance with the standards and/or specifications stated in Annexure G7/A2.

4.2 ACCREDITED SERVICE PROVIDERS

Construction work on the electricity network must only be carried out by a Level 1 Accredited Service Provider, and design work only by a Level 3 Accredited Service Provider. Names of Accredited Service Providers (ASP) can be found at:

<https://energysaver.nsw.gov.au/business/you-and-energy-providers/installing-or-altering-electricity-service>

Engage only an ASP at the appropriate Level as your subcontractor.

Prior to commencing any construction work on the electricity network, your subcontractor must enter into any agreement required by the Local Electricity Distributor. Construction work on the electricity network must not commence until the Local Electricity Distributor gives the approval to commence work.

4.3 CURRENCY OF CERTIFICATION OF DRAWINGS

The Local Electricity Distributor's certification of the electricity mains and/or street lighting adjustment drawings may have a limited validity period from the date of the certification. If the work shown on these drawings has not commenced by this expiry date, the Principal will need to apply for a new certification by the Local Electricity Distributor.

Monitor your progress against the expiry date stated in Annexure G7/A2 and notify the Principal at least one month prior to the expiry date to enable the Principal to apply for a new certification. If you so fail to notify the Principal, you will not be entitled to an extension of time for any delay to the Works resulting from the application for a new certification.

The Principal will bear the cost of the re-certification of the drawings.

4.4 TEMPORARY STREET LIGHTING

4.4.1 Illumination Levels of Temporary Street Lighting

For temporary street lighting, the level of illumination at any location must not be less than that existing at the Date of Contract, unless directed otherwise by the Principal.

4.4.2 Street Lighting Under Temporary Traffic Conditions

Except for minimum periods necessary for the purposes of testing and commissioning, new street lights under temporary traffic conditions must not be switched on after dark if this could confuse motorists or give rise to a safety risk.

4.5 PROJECT SPECIFIC REQUIREMENTS

Insert here any project specific requirements. (Note: Pay Item G7P5.6 stated in the example below is only an example and is not one of the pay items in Annexure G7/B.)

Example:

Property No 23 requires a continuous power supply for their refrigeration. Prior to any shutdown, install temporary generators to provide a temporary power supply during the shutdown period.

The cost of providing continuous power supply to Property No 23 is to be paid under Pay Item G7P5.6.

5 WATER SUPPLY AND WASTEWATER

5.1 APPLICABLE STANDARDS AND LISTED PROVIDERS

When carrying out work on the Sydney Water network,

- (a) comply with Sydney Water standards, specifications and procedures, including Sydney Water's "Asset adjustment and protection manual", WSA 03–2011 v3.1 "Water Supply Code of Australia" and WSA 02–2002 v2.3 "Sewerage Code of Australia" (Sydney Water Editions).
- (b) use only Sydney Water Listed Providers which are accredited under the relevant category of work. The current list of Sydney Water Listed Providers is available at:
<https://www.sydneywater.com.au/SW/plumbing-building-developing/developing/providers/lists/index.htm>

5.2 WATER SERVICING COORDINATOR

Unless specified otherwise in Annexure G7/A3, engage a Sydney Water accredited Water Servicing Coordinator (Delivery) to assist you to manage the onsite work on Sydney Water's assets.

The Water Servicing Coordinator (Delivery) will act as your contact with Sydney Water and will submit all notifications to Sydney Water including the Construction Commencement Notice, shutdowns and reconnections, mains disinfection, and commissioning.

5.3 CONSTRUCTOR

Engage a Sydney Water accredited Constructor as your subcontractor to undertake the water and wastewater utility adjustment work, and Sydney Water accredited Field Testers for related testing work.

If required in Annexure G7/A3, as part of your procurement process, obtain written quotations using the G7P7 and/or G7P8 pay items from at least three accredited Constructors. Submit copies of the three quotations to the Principal at least 5 working days prior to commencing the Sydney Water utility adjustment work.

5.4 DEVELOPER WORKS DEED AND SYDNEY WATER BOND

You will be required to sign the Sydney Water "Developer Works Deed" jointly with the Principal and other parties. Where the Deed has already been signed by the Principal at an earlier stage, you will be required to sign Schedule 3 "Deed Poll" of the "Developer Works Deed". Copies of the documents are available from:

<https://www.sydneywater.com.au/SW/plumbing-building-developing/developing/developer-deeds-and-standard-terms/index.htm>

Before commencing the adjustment work, lodge a bond ("Works Warranty Bond") with Sydney Water for the amount stated in Annexure G7/A3, either in the form of cash or an unconditional guarantee from a financial institution acceptable to Sydney Water.

5.5 PROJECT SPECIFIC REQUIREMENTS

Insert here any project specific requirements e.g. restrictions on cutover times, temporary supply of water to specific users, etc.

Example:

Store the waste chlorinated water resulting from the disinfection of the water mains in open ponds for a minimum period of 10 days, to allow the chlorine to evaporate, prior to discharging into the drainage system or natural watercourse.

6 TELECOMMUNICATIONS

6.1 TELSTRA

6.1.1 Contractual Arrangement for Adjustment of Telstra's Assets

Where adjustment of Telstra's assets is required, pursuant to Clause 29.3 and Contract Information item 31 of GC21 General Conditions of Contract, the Principal nominates Telstra as the sole *Preferred Subcontractor*.

The subcontract between you and Telstra will use Telstra's contract terms and conditions.

Telstra will in turn engage a Telstra accredited Industry Specialist as its subcontractor to carry out the adjustment work in accordance with its standards. Allow up to 12 weeks for Telstra to arrange their subcontract.

6.1.2 Scope of Telstra's Work

The works to be carried out by Telstra are shown on the Drawings and includes the following:

List here Telstra's scope of works.

The following works are excluded from Telstra's scope of work, and must be carried out by you:

List here exclusions from Telstra's scope of works. This may include traffic control, environmental protection measures, trench excavation and backfill, dewatering, installation of conduits, removal of redundant utility services infrastructure, etc.

If such work to be carried out by the Contractor is not covered by the pay items in Annexure G7/B, insert new pay items for the work.

6.1.3 Coordinate With Telstra

Coordinate your work with the adjustment work on Telstra's telecommunications network carried out by its Industry Specialist.

Take account of the following constraints:

Detail here any staging or timing constraints in relation to Telstra's works.

6.2 OPTUS

6.2.1 Contractual Arrangement for Adjustment of Optus' Assets

Where adjustment of Optus' assets is required, pursuant to Clause 29.3 and Contract Information item 31 of GC21 General Conditions of Contract, the Principal nominates Optus as the sole *Preferred Subcontractor*.

The subcontract between you and Optus will use Optus' contract terms and conditions.

Optus will in turn engage an Optus accredited Industry Specialist as its subcontractor to carry out the adjustment work in accordance with its standards. Allow up to 12 weeks for Optus to arrange their subcontract.

6.2.2 Scope of Optus' Work

The works to be carried out by Optus are shown on the Drawings and includes the following:

List here Optus' scope of works.

The following works are excluded from Optus' scope of work, and must be carried out by you:

List here exclusions from Optus' scope of works. This may include traffic control, environmental protection measures, trench excavation and backfill, dewatering, installation of conduits, removal of redundant utility services infrastructure, etc.

If such work to be carried out by the Contractor is not covered by the pay items in Annexure G7/B, insert new pay items for the work.

6.2.3 Coordinate With Optus

Coordinate your work with the adjustment work on Optus' telecommunications network carried out by its Industry Specialist.

Take account of the following constraints:

Detail here any staging or timing constraints in relation to Optus' works.

6.3 OTHER TELECOMMUNICATION UTILITY OWNERS

Other telecommunications utility owners include NBN, Vocus Communications, etc.

Detail here any specific contractual arrangement and staging or timing constraints in relation to the adjustment of the telecommunication utility assets.

7 GAS

7.1 JEMENA

7.1.1 Working Within Or Adjacent to Jemena's Pipeline Land

Where the Contract works is to be carried out within or adjacent to Jemena's Pipeline Land, the Principal has entered into a Land Crossing Deed with Jemena. The extent of the Jemena's Pipeline Land is shown in the Land Crossing Deed.

Comply with the following requirements for working within or adjacent to Jemena's Pipeline Land:

Insert the requirements stated in the Land Crossing Deed for working within or adjacent to the Pipeline Land.

Prior to commencing any work within or adjacent to Jemena's Pipeline Land, obtain from Jemena a Permit to Work. The Permit to Work will state whether supervision by the Jemena Permit Issuing Officer is required during the work.

HOLD POINT

Process Held:	Commencement of work within or adjacent to Jemena's Pipeline Land.
Submission Details:	Copy of the Permit to Work, and if supervision by the Jemena Permit Issuing Officer is required, evidence that the Permit Issuing Officer has been notified and will be in attendance during the subject works.
Release of Hold Point:	The Principal will consider the submitted documents prior to authorising the release of the Hold Point.

7.1.2 Contractual Arrangement for Adjustment of Jemena's Gas Network

Where adjustment of Jemena's assets is required, pursuant to Clause 29.3 and Contract Information item 31 of GC21 General Conditions of Contract, the Principal nominates Jemena as the sole *Preferred Subcontractor*.

The subcontract between you and Jemena will use Jemena's contract terms and conditions.

Jemena will in turn engage a Jemena accredited constructor as its subcontractor to carry out the adjustment work in accordance with its standards. Allow up to 12 weeks for Jemena to arrange their subcontract.

7.1.3 Scope of Jemena's Work

The works to be carried out by Jemena are shown on the Drawings and includes the following:

List here Jemena's scope of works.

The following works are excluded from Jemena's scope of work, and must be carried out by you:

List here exclusions from Jemena's scope of works. This may include traffic control, environmental protection measures, trench excavation and backfill, dewatering, installation of pipes, removal of redundant utility services infrastructure, etc.

If such work to be carried out by the Contractor is not covered by the pay items in Annexure G7/B, insert new pay items for the work.

7.1.4 Coordinate With Jemena

Coordinate your work with the adjustment work on Jemena's gas network carried out by its constructor.

Take account of the following constraints:

Detail here any staging or timing constraints in relation to Jemena's works.

7.1.5 Payment Bond and Upfront Payment

You will be required to lodge a bond with Jemena in the amount of \$50,000, either in the form of cash or an unconditional guarantee from a financial institution acceptable to Jemena, and make an upfront payment to Jemena prior to the commencement of work by Jemena.

8 TfNSW TRAFFIC SIGNALS AND INTELLIGENT TRANSPORT SYSTEM

8.1 TRAFFIC SIGNALS

8.1.1 Applicable Specification

Comply with Specification TfNSW TS101 when carrying out adjustment work on TfNSW traffic signals.

8.1.2 Notice Period for Temporary Traffic Signals Adjustment

If you require any temporary relocation of the existing traffic signals, interim stages to new traffic signals being installed by you, or modification of the signal phasing, to suit your staging of the works, submit your request to the Principal at least 4 weeks prior to the date required, with full details of the modification required.

HOLD POINT

Process Held:	Relocation of traffic signals or modification of the signal phasing.
Submission Details:	Details of modification required.
Release of Hold Point:	The Principal will consider the submitted documents prior to authorising the release of the HOLD POINT.

8.1.3 Record of Access Made to Traffic Signal Assets

Keep an auditable written record of all access made to all traffic signal assets (including pits) containing live cables which are undertaken as part of the Work Under the Contract, regardless of whether the assets are within or outside the Site.

The record must cover all such activities, no matter how minor, particularly that which involve lifting the lid of a traffic signal pit. The record must show the name of the person(s) who accessed the traffic signal asset, the purpose of the access, full details of the work carried out, and the date, time and duration of access.

Exercise care in lifting and replacing the lids of traffic signal pits, to ensure that wires are not inadvertently caught in the pit lid.

The record must be available for inspection by the Principal throughout the duration of the Contract on reasonable notice. Submit this record to the Principal at Completion.

8.2 INTELLIGENT TRANSPORT SYSTEM

If ITS installation or adjustment is not applicable to your project, delete the text below and replace the heading with “Not Applicable”.

Carry out adjustments to the Intelligent Transport System (ITS) in accordance with the ITS Drawings.

Construct the ITS cableways in accordance with the Drawings and Specification TfNSW R155 “Design and Construction of Underground Cableways”.

Payment for this work will be made under TfNSW R155.

9 PRIVATELY OWNED SERVICES

Insert here details of adjustment work required to any extensions of the utility network on privately owned land. If such adjustment work is not required, replace the heading with “Not Applicable”.

10 COMPLETION

10.1 MARKINGS ON KERB

At road crossings of utilities where a kerb and gutter is present, mark on the face of the kerb immediately above the centreline of the conduit/pipe, or group of conduits/pipes, with the following letters, to indicate that location of the utility at the road crossing:

Utility Type	Electricity	Water	Telecoms	Gas
Marking	E	W	T	G

The letters must be stencilled on the kerb, in yellow colour, and 50 mm in height.

10.2 REDUNDANT UTILITIES

Unless otherwise shown on the Drawings, or directed by the Principal or by the utility owner, remove and dispose of any disused utility infrastructure within the road reserve that has become redundant as a result of the utility adjustment.

Where any of the disused pipes or pits contains asbestos, remove and dispose of them in accordance with Specification TfNSW G36.

10.3 CLEAN UP

10.3.1 Surplus Excavated Material

Dispose of any surplus excavated material from the utility adjustment work off site in accordance with the methods set out in Specification TfNSW R44 unless the Principal directs or approves its use in the construction of embankments, or at other locations within the Site.

The cost of disposal of any surplus excavated materials arising from the utility adjustment work is deemed to be included in the rates and prices generally. No additional payment will be made under TfNSW R44.

10.4 WORK-AS-EXECUTED DRAWINGS

10.4.1 General

Within 4 weeks of completing the utility adjustment works, other than utility adjustment works carried out by Telstra and Jemena, submit work-as-executed (WAE) drawings of the adjustment works in accordance with Clause 41 of Specification TfNSW G2.

Comply with AS 5488 and the respective utility owners' requirements when preparing the WAE drawings. Unless otherwise specified by the utility owner, the quality level of the WAE drawings must be Quality Level A.

10.4.2 Sydney Water

In addition to the requirements stated in Clause 10.4.1, the WAE drawings must show all changes of direction and details of all fittings. The WAE drawings provided electronically to the Water Servicing Coordinator must be in the form of 3D string information in the MGA and AHD coordinate system.

10.5 COMPLETION AND HANDOVER

Where the utility adjustment work is not carried out directly by the utility owner, submit to the respective utility owner the project completion/handover documentation and obtain the utility owner's acceptance of the completed utility adjustment works. Provide a copy of the documentation and the utility owner's acceptance to the Principal.

The new utility asset will become the property of the utility owner when the utility owner accepts the new utility asset in writing.

ANNEXURE G7/A – PROJECT SPECIFIC REQUIREMENTS

NOTES TO TENDER DOCUMENTER: (Delete this boxed text after customising Annexure G7/A)

Where “Yes / No” options are shown below, delete whichever is not applicable.

A1 GENERAL

A1.1 Concurrent Works

Refer Clause 2.2.1.

NOTES TO TENDER DOCUMENTER: (Delete this boxed text after customising Annexure G7/A)

Detail here any concurrent works by utility owners.

Example

Concurrent works carried out by utility owners during the duration of the Contract include the following:

- (a) Installation of a new 110 mm gas main by Jemena along the western side of Richmond Road from Ch 320 to 470;*
- (b) Installation of a new fibre-optic cable by Optus adjacent to the gas main described in item (a) above;*
- (c) Installation of a new sewer main by Sydney Water along the eastern side of Richmond Road from Bells Creek to Ch 320.*

The Principal will give you at least 10 working days’ notice of the date when access is required by the respective utility owners to carry out this work.

A1.2 Locations of Potential Conflicts

Refer to Clause 2.3.2.

NOTES TO TENDER DOCUMENTER: (Delete this boxed text after customising Annexure G7/A)

List here details of locations where there is a potential for conflict during construction, arising from congestion of utility services at those locations, and locations where it is not practicable to accurately determine the position of the existing utilities at the design stage. Delete if not applicable.

Example

In the vicinity of Abutment B pilecap, there are some existing electrical and telecommunications conduits buried beneath the existing concrete structure. Remove the existing concrete structure and excavate to expose the existing underground conduits, carry out a survey of the positions and levels of the individual conduits, and submit to the Principal a plan showing the positions and levels of the existing conduits relative to that for the piles and pile caps.

A1.3 Contractor's Utility Works Coordinator

Default requirement for "full time Utility Works Coordinator" is "Yes".

Clause	Description	Requirement
2.2.4	Full time Utility Works Coordinator required	Yes / No

A2 ELECTRICITY MAINS AND STREET LIGHTING

Clause	Description	Requirement
1.3.1	Local Electricity Distributor is
4.1.2	Applicable standards and/or specifications	TfNSW R151 / Distributor's standards ⁽¹⁾
4.3	Expiry date of Local Electricity Distributor's certification of Drawings

Note

⁽¹⁾ "Distributor's standards" refers to the Local Electricity Distributor's standards and specifications.

A3 WATER SUPPLY AND WASTEWATER

Clause	Description	Requirement
5.2	Sydney Water accredited Water Servicing Coordinator (Delivery) engaged by Contractor	Yes / No ⁽¹⁾
5.3	Contractor to submit written quotations from at least three accredited Constructors ⁽²⁾	Yes / No
5.4	Sydney Water Works Warranty Bond required	Yes / No
5.4	Amount of bond required	\$.....

Notes:

⁽¹⁾ Where requirement shown above is "No", the Water Servicing Coordinator (Delivery) will be engaged by the Principal.

⁽²⁾ The purpose of the 3 quotations is to enable TfNSW to recoup financial contributions from Sydney Water for betterment to Sydney Water infrastructure. If Sydney Water is not providing any financial contribution, then this requirement does not apply.

A4 TELECOMMUNICATIONS

Insert here any other project specific requirements not detailed elsewhere for adjustment of Telstra, Optus, or other telecommunications network assets.

ANNEXURE G7/B – MEASUREMENT AND PAYMENT

Refer to clause 1.2.2.

Payment will be made for all costs associated with completing the work detailed in this Specification in accordance with the following Pay Items.

The costs for locating underground, surface and overhead utilities, including potholing or other non-destructive digging and cable locating, and any particular item work for which no specific pay items are provided, are deemed to be included in the rates and prices generally for the Work Under the Contract.

Payment for adjustment work on traffic signals (refer Clause 8.1) will be made under TfNSW TS101 or TfNSW G10 as appropriate.

Unless otherwise specified, a lump sum price for any of these items will not be accepted.

Pay Item G7P1 - Coordination and Management of Utility Adjustment Work

This is a Lump Sum item.

The Lump Sum covers all costs involved in the coordination and management of the utility adjustment work, including:

- (a) scheduling your utility adjustment work and other concurrent works to accord with the construction staging required for Work Under the Contract;
- (b) attendance on your utility adjustment subcontractors and other concurrent works carried out directly by the utility owners, as required;
- (c) temporary utility adjustments to suit your construction method;
- (d) charges by the utility owner for their costs associated with the utility adjustment works, including for:
 - (i) reviewing your documents and drawings;
 - (ii) inspection and testing during construction and prior to commissioning;
 - (iii) shutdowns and cutovers;
- (e) measures to protect or otherwise avoid damage to existing or newly constructed utilities;
- (f) provision of notices to the community affected by shutdowns, as required.

Progress payments will be made on a pro-rata basis having due regard to the duration of the utility adjustment works and the extent of work carried out.

Pay Item G7P2 - Excavation and Backfill of Trench

Refer Clause 3.2.

The unit of measurement is the cubic metre measured as bank volume of the excavation in all types of material for installation of conduits/pipes and pits.

The volume is determined by multiplying the actual length of the trench by the design depth of the trench, by the minimum trench width as shown on the Drawings, unless otherwise approved by the Principal.

Utility Adjustment

G7

The schedule rate includes excavation, shoring, dewatering, supply and placement of marker tape, backfilling and disposal of all surplus material.

Payment will not be made for any additional material or work as a result of over-excavation.

Pay Item G7P3 - Inadequate Foundation Material Under Conduits and Pit Bases

Refer Clause 3.3.

The scheduled quantity is a provisional quantity.

This Pay Item covers the payment for excavation, removal and disposal of inadequate foundation material (including any off-site disposal), and its replacement with adequate foundation material, in accordance with Clause 3.3.

The unit of measurement is the cubic metre measured as the bank volume of material which is directed by the Principal to be removed, disposed of and replaced.

Pay Item G7P4 - Extra Over for Sand Cement Backfill for Trenches

Refer Clause 3.4.2.

The scheduled quantity is a provisional quantity.

The unit of measurement is the cubic metre measured as the compacted volume of the backfill.

The volume is determined by multiplying the actual length of the trench by the design depth of the trench, by the minimum trench width as shown on the Drawings less the volume occupied by the utility pipes/conduits, unless otherwise approved by the Principal.

Pay Item G7P5 - Electricity Mains

Detail here pay items associated with adjustment of the electricity mains.

For road or waterways crossings (refer Clause 3.4), provide Lump Sum pay items for each road or waterways crossing.

Example:

Pay Item G7P5.9 Road crossing at Chainage 3405

Pay Item G7P6 - Street Lighting (non-TfNSW)

Detail here pay items associated with the adjustment or construction of street lighting which will be maintained by the Local Electricity Distributor.

Street lighting which will NOT be maintained by the Local Electricity Distributor is covered under Specification TfNSW R151.

For road or waterways crossings (refer Clause 3.4), provide Lump Sum pay items for each road or waterways crossing similar to the example given under Pay Item G7P5.

Pay Item G7P7 - Engagement of Water Servicing Coordinator

This pay item is applicable only if the Sydney Water accredited Water Servicing Coordinator is to be engaged by the Contractor.

This is a Lump Sum item.

The Lump Sum includes all costs associated with the engagement of the Water Servicing Coordinator.

Progress payment will be made on a pro-rata basis having due regard to the duration of the water utility adjustment works and the extent of work carried out.

Pay Item G7P8 - Water Mains

Detail here pay items associated with adjustment of the water mains.

For road or waterways crossings (refer Clause 3.4), provide Lump Sum pay items for each road or waterways crossing similar to the example given under Pay Item G7P5.

Pay Item G7P9 - Sewer Mains

Detail here pay items associated with adjustment of the sewer mains.

For road or waterways crossings (refer Clause 3.4), provide Lump Sum pay items for each road or waterways crossing similar to the example given under Pay Item G7P5.

Pay Item G7P10 - Telecommunications

If the telecommunications utility adjustment includes more than one telecommunications utility owner, sub-divide this pay item accordingly.

This is a Provisional Sum item.

Measurement and payment will be in accordance with the subcontract lump sum amount for the telecommunications adjustment as accepted by the Principal in accordance with Clause 6, plus the provisional sum margin added in accordance with Clause 55.4 of GC21 General Conditions of Contract.

Pay Item G7P11 - Gas

If the gas utility adjustment includes more than one gas utility owner, sub-divide this pay item accordingly.

This is a Provisional Sum item.

Measurement and payment will be in accordance with the subcontract lump sum amount for the gas network adjustment as accepted by the Principal in accordance with Clause 7, plus the provisional sum margin added in accordance with Clause 55.4 of GC21 General Conditions of Contract.

Pay Item G7P12 - Traffic Signals

Detail here pay items associated with adjustment of the traffic signals.

Example

Pay Item G7P12.1 - Traffic Signals Adjustment at Intersection of Eastern Highway and Wonga Road

This is a Lump Sum item.

The Lump Sum includes the supply and installation of new traffic signals at the northern part of the junction, and modification of the signal phasing to suit the construction staging.

Pay Item G7P13 - Privately Owned Services

Detail here pay items associated with adjustment of extensions of the utility network on privately owned land.

ANNEXURE G7/C – SCHEDULES OF HOLD POINTS AND IDENTIFIED RECORDS

Refer to Clause 1.2.3.

C1 SCHEDULE OF HOLD POINTS

Clause	Description
3.1	Determination of actual locations of existing and proposed utilities
3.1	Submission of details of utility adjustment subcontractor
7.1.1	Submission of Jemena Permit to Work, and where relevant, evidence that Permit Issuing Officer has been contacted and will be in attendance
8.1.3	Submission of details of proposed modification to traffic signals

C2 SCHEDULE OF IDENTIFIED RECORDS

The records listed below are Identified Records for the purposes of TfNSW Q Annexure Q/E.

Clause	Description of Identified Record
2.1.1	Written approvals from utility owners to commence work
2.1.2	Written agreement from utility owners for shared trench arrangements
2.2.5	Minutes of meetings and communication with utility owners
2.2.6	Notices to utility owners
2.2.8	Instructions from utility owners' staff
2.3.1	Dial Before You Dig plans and information
2.3.2	Notifications of potential conflicts
2.4	Design submissions and/or approvals for utility adjustments to suit your construction method
2.5.2	Agreements with property owners
4.2	Agreement with the Local Electricity Distributor prior to commencement of work on the electricity network
5.4	Sydney Water "Developer Works Deed"
8.1.4	Record of access made to traffic signal assets
10.4	WAE drawings
10.5	Project completion/handover documentation and utility owner's acceptance of completed utility adjustment works

ANNEXURE G7/D – PLANNING DOCUMENTS

Refer to Clause 1.2.4. The following documents are a summary of documents that must be included in the PROJECT QUALITY PLAN. The requirements of this Specification and others included in the Contract must be reviewed to determine additional documentation requirements.

Clause	Description
2.2.3	Utility Management Plan
2.3.3	Measures to prevent damage to constructed utilities
2.5	Work related to shutdowns and reconnections
3.4.1	Work Method Statements for open trenching and trenchless techniques
8.1.3	Temporary traffic signal arrangements

ANNEXURES G7/E – UTILITY OWNER’S CONTACT PERSON DETAILS

The contact person details listed below were current at September 2015. The Tender Documenter must check and update the details.

Utility Owner	Contact Person	Position	Contact Details
Endeavour Energy	Len Blair-Hickman	Major Projects and Customer Manager	Tel: (02) 9853 7928 Email: len.blair-hickman@endeavourenergy.com.au
Sydney Water	Darryl Foster	Manager, Asset Services	Tel: (02) 8849 3512 Email: darryl.foster@sydneywater.com.au
Telstra	Mark Schneider	Asset Relocation Project Specialist	Tel: (02) 8842 5185 Mob: 0419 242 044 Email: mark.p.schneider@team.telstra.com
Optus	Ron Harrison	NSW Damage and Relocation Manager	Tel: (02) 8082 0157 Mob: 0434 801 417 Email: ron.harrison@optus.com.au
Jemena	Adrian Gallegos	Program Manager	Tel: (02) 9867 8036 Email: adrian.gallegos@jemena.com.au
NBN	Serkan Aktas	Manager, Co-development	Tel: (02) 8918 7141 Mob: 0416 100 725 Email: serkanaktas@nbnc.com.au

ANNEXURES G7/F TO G7/L – (NOT USED)

ANNEXURE G7/M – REFERENCED DOCUMENTS

Refer to Clause 1.2.5.

TfNSW Specifications

TfNSW G2	General Requirements
TfNSW G10	Traffic Management
TfNSW G22	Work Health and Safety (Construction Work)
TfNSW G36	Environmental Protection
TfNSW G38	Soil and Water Management
TfNSW Q	Quality Management System
TfNSW R11	Stormwater Drainage
TfNSW R44	Earthworks
TfNSW R151	Street Lighting
TfNSW R155	Design and Construction of Underground Cableways
TfNSW TS101	Traffic Control Signals – New Installation and Reconstruction

Australian Standards

AS 5488	Classification of subsurface utility information (SUI)
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Sydney Water Documents

Asset adjustment and protection manual

Other Standards

WSA 02–2002 v2.3	Sewerage Code of Australia (Sydney Water Edition)
WSA 03–2011 v3.1	Water Supply Code of Australia (Sydney Water Edition)