



QA SPECIFICATION G1

JOB SPECIFIC REQUIREMENTS

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VERSION FOR: MR92 BULEE TO NERRIGA
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CONTENTS

FOREWORD	III
RTA Copyright and Use of this Document.....	iii
1 GENERAL.....	1
1.1 Description of Works	1
1.2 Structure of the Specification	1
2 DESIGN FEATURES	2
3 WORK NOT IN CONTRACT.....	3
4 CONTRACTOR’S WORKING AREA AND STORAGE AREAS	3
5 STOCKPILE SITES	4
6 DISPOSAL OF SURPLUS MATERIALS.....	4
7 BORROW AREAS AND QUARRIES	4
8 ACCESS TO SITE	5
9 POSSESSION OF SITE.....	5
10 TRAFFIC CONTROL	5
11 PUBLIC UTILITY	6
11.1 Protection of Eastern Gas Pipeline	6
11.2 Public Utility Relocation	8
12 MILESTONE	9
13 CONCURRENT WORK	9
14 PRE-QUALIFICATION AND REGISTRATION REQUIREMENTS	9
15 CHANGES TO QA MODEL SPECIFICATIONS.....	9
16 MATERIALS SUPPLIED BY THE PRINCIPAL	9
17 HISTORIC BUILDINGS	10
18 USE OF STRUCTURES BY CONSTRUCTION PLANT	10
19 MAINTENANCE OF MR92.....	10
20 ESTIMATED EARTHWORKS QUANTITIES	10
21 CO-ORDINATION AND REVIEW	11
22 CASH FORECASTING.....	11
23 COMMUNITY LIAISON	11

24	NPWS (DEC) GATES AND BOUNDARY MARKERS.....	11
25	SCHEDULE OF DRAWINGS	12
	ANNEXURE G1/A – (NOT USED)	13
	ANNEXURE G1/B – MEASUREMENT AND PAYMENT	13
	ANNEXURE G1/C - SCHEDULES OF HOLD POINTS, WITNESS POINTS AND IDENTIFIED RECORDS	13
	C1 Schedule Of Hold Points and Witness points	13
	C2 Schedule Of Identified Records	14
	ANNEXURES G1/D– CHANGES TO QA MODEL SPECIFICATIONS	14
	ANNEXURES G1/E TO G1/L – (NOT USED)	16
	ANNEXURE G1/M – REFERENCED DOCUMENTS	16
	LAST PAGE OF RTA G1 IS:	15

FOREWORD

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RTA QA SPECIFICATION G1

JOB SPECIFIC REQUIREMENTS

1 GENERAL

1.1 DESCRIPTION OF WORKS

The Works in this contract comprise of the MR92 Upgrade, Stage 2, Braidwood Road between 44.2 km – 53.4km west of Hames Road, Nowra. The Works involve reconstruction of the existing road formation under traffic and construction of new sections of road including a bridge, on improved alignments.

The works include the following construction activities:

- erosion and sedimentation control and other environmental protection measures;
- clearing of vegetation;
- major earthworks including construction of embankments, excavation in rock;
- stormwater and subsurface drainage;
- construction of a road bridge;
- construction of retaining walls
- construction of a fauna underpass;
- installation of fauna protection fencing and boundary fencing;
- construction of unbound pavement courses
- 10/7 mm primer seal on new pavement
- revegetation
- signposting, pavement marking and roadside furnishings

The road passes through Morton National Park and includes the Bulee (Wool Road) heritage area. The majority of Stage 2 Construction is within the Sydney Catchment Authority (SCA) area.

You are required to place high emphasis on environmental management and heritage values, safety and traffic management.

1.2 STRUCTURE OF THE SPECIFICATION

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

1.2.1 Measurement and Payment

The method of measurement and payment and the acceptance of materials and work must comply with Annexure G1/B.

1.2.2 Schedules of Hold and Witness Points and Identified Records

The schedules in Annexure G1/C list the **HOLD POINTS** and **WITNESS POINTS** that must be observed. Refer to RTA Q for the definitions of **HOLD POINTS** and **WITNESS POINTS**.

The records listed in Annexure G1/C are Identified Records for the purposes of RTA Q Annexure Q/E.

1.2.3 Referenced Documents

Unless otherwise specified or is specifically supplied by the Principal, the applicable issue of a referenced document 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.

Codes, standards, specifications and test methods are referred to in abbreviated form (eg AS 1234). For convenience, the full titles are given in Annexure G1/M.

2 DESIGN FEATURES

The design features of the bridgeworks for the contract are tabled below.

SUPERSTRUCTURE	SUBSTRUCTURE	ALIGNMENT
60m long bridge consisting of four 15m spans of precast PSC planks with a 9.15m wide RC deck between precast concrete parapet	RC headstocks are supported by three sets of twin 900mm diameter piles socketed into rock, 750 mm diam columns, with a natural ground abutment at the east and a retaining wall at the western abutment.	The horizontal alignment consists of part 100m radius and part transition with a 12.22% longitudinal grade. Height of the bridge is approx 14m above existing ground level.

The design features of the retaining walls for the contract are tabled below.

Wall Type	Side	Start	Finish	Approx Height	Area of RE Wall	m3 of gabion wall
RE	LHS	45955	46015	5.7	260	
RE	LHS	46900	47060	13.6	1240	
RE	RHS	46900	46915	9	490	
RE	LHS	47310	47450	6.8	140	
RE	LHS	47520	47551	4.9	100	
RE	LHS	47665	47770	5	260	
RE	LHS	48750	48810	4.6	220	
RE	RHS	49725	49810	6.8	460	
GABION	LHS	45905	45955	2		170
GABION	RHS	46250	46430	3		920
GABION	LHS	46637	46658	1		20
GABION	LHS	47117	47162	3.5		190
GABION	LHS	47655	47665	2		30
GABION	RHS	49260	49280	2		30

Wall Type	Side	Start	Finish	Approx Height	Area of RE Wall	m3 of gabion wall
GABION	RHS	49380	49540	4		690
GABION	LHS	49520	49645	4		420
GABION	LHS	51830	51876	2		80

3 WORK NOT IN CONTRACT

All utility adjustments (Optic fibre, EGP and local Telstra) are not included in this Contract and it is anticipated that this work will be completed prior to award of Contract.

Boundary fencing has been completed between Ch 50692 to Ch 52120 (RHS) and from Ch 52635 to Ch 53345 (RHS).

Rock bolting of the rock face adjacent to the existing road at Ch 46940 near Bulee Gap will be completed as a separate contract prior to work commencing on Stage 2.

In addition the final wearing surface (14mm bitumen seal) is excluded from the Contract.

4 CONTRACTOR'S WORKING AREA AND STORAGE AREAS

The working area available to the Contractor is the land within the road boundaries as shown on the Drawings with the exception of "no go" areas shown on the drawings.

The Contractor is responsible for establishing any additional working, storage and material processing areas required to conduct the works in accordance with RTA G36 Clause 6.4.

The RTA has leased two parcels of land adjacent to the MR92 road boundaries within the Stage 2 construction length which are available to the Contractor for use such as a site office compound or a stockpile site. They are located at Ch 47250 and Ch 47850.

If the Contractor proposes to use any other land outside of the road boundaries, the Contractor shall undertake an additional assessment of the environmental impacts associated with operating such working and storage areas (ref RTA G36 Clause 6.1) and shall obtain a written agreement from the relevant property owner and present it to the Principal before proceeding.

Old sections of the existing road may be utilised as potential stock pile sites once traffic is diverted to the new alignment. Note that within the Bulee (Wool Road) Heritage area there are sections where the existing road is designated on the Drawings to be retained without revegetation. The road pavement and features in these sections are not to be damaged, though these areas can be utilised for stockpile sites and other temporary uses.

The Contractor must build a sealed access road into, and set up the Principal's site facilities at Ch 35000 (see RTA G4). This is the designated site office and additional storage and area is also available.

5 STOCKPILE SITES

Before commencing stripping of topsoil, liaise with the Principal to establish acceptable locations for stockpile sites. For locations outside the road reserve, the Principal requires you to obtain consent from the landowner. In relation to RTA R44 Clause 2.3, the Drawings indicate a possible stockpile site location outside the road reserve at Ch 47850 (LHS).

Promptly restore each stockpile site in accordance with RTA R178 Clause 7, when the stockpile site is no longer needed for construction purposes.

Note the requirement to stockpile mulch and topsoil within the Bulee Conservation area in the five discrete identified vegetation zones (see RTA G40.4 and RTA R178.2.1 respectively).

HOLD POINT

Process Held.	Establishment of stockpile sites.
Submission Details.	Proposed stockpile site locations, including any conditions imposed by other authorities and details of environmental controls (refer RTA G38 Clause 3.2).
Release of Hold Point.	The Principal will inspect the proposed stockpile site locations prior to authorising the release of the Hold Point.

6 DISPOSAL OF SURPLUS MATERIALS

You are responsible for arranging suitable locations to spoil surplus excavated material from cuttings, existing road surfacing material, concrete rubble and the like. Disposal must be to re-use in other construction sites or to approved landfill areas acceptable to the local Council. Degraded areas within Crown Land or National Parks may also be approved as spoil sites by the Principal, subject to prior written agreement regarding remedial treatment to such areas.

Advise the Principal of the location of disposal sites before using them. All fees and other costs associated with the disposal of excess materials are to be borne by you.

7 BORROW AREAS AND QUARRIES

Any imported material must be supplied from legally operating quarries. The Contractor must gain prior approval from the Principal and provide a detailed submission if the Contractor intends to use any road building materials with the potential for acid run-off.

The Contractor shall take responsibility for obtaining any permits required for entry on land and for the payment of any royalty for materials imported to the site from borrow areas or quarries. The Contractor shall also comply with any requirements of the Environmental Planning and Assessment Act, the local Council, landowners and the NSW Department of Planning, as appropriate. Any costs involved in opening up, maintaining or restoring borrow areas or quarries are to be borne by the Contractor.

Provide the Principal with details of the proposed locations, quantities and types of material, before delivering imported material to the site.

8 ACCESS TO SITE

Access to the site (which is generally within or adjacent to the exiting alignment of MR92) is from the existing road system. The contractor is to give particular consideration to the heritage sites shown on the Drawings when considering staging of the work and temporary traffic diversions to ensure that there is no damage to identified features.

All weather accesses to private property, Transgrid and EGP (Alinta) access tracks and DEC (NPWS) tracks are to be maintained at all times unless prior agreement of the property owner and the approval of the Principal is obtained. The contractor is not to interfere with the operations of the Principal or with the Principal's other contractors.

9 POSSESSION OF SITE

The time for giving you possession of the site is two (2) weeks from the date of Acceptance of Tender (ref GC21 Clause 38.1), unless otherwise agreed with the Principal and *after* submission of the information required in accordance with Clause 6 of RTA Specification G36 and the following documents:

- Contract Program
- first stage of PROJECT QUALITY PLAN, including Earthworks plan
- first stage of ENVIRONMENTAL MANAGEMENT PLAN
- Project OHS&R Management Plan
- Traffic Management Plan

Notwithstanding the granting of possession of site, you must not commence any road construction until the Principal has authorised the release of the Hold Points in relation to the above documentation.

10 TRAFFIC CONTROL

Work under traffic will be required during reconstruction of the existing road formation. The Contractor shall be responsible for determining and implementing a suitable traffic control arrangement in accordance with RTA G10 which also satisfies the following additional requirements:

- Sidetracks shall be located within the road reserve and at least 2m away from the Eastern Gas Pipeline
- Restriction to one lane of traffic is permitted during working hours. Traffic shall not be stopped for more than 20 minutes in any direction. If work under traffic is being carried out simultaneously at more than one location, coordinate traffic controls so that any vehicle travelling through the full construction length is not stopped for more than twenty minutes per journey.
- Two-way traffic shall be reinstated outside of working hours unless traffic signals are used.
- Batter slopes must not be left steeper than 0.5:1 in cut and 1.5:1 in fill during the construction
- The road surface must be adequately drained at all times.

- Personnel and equipment for after-hours maintenance and emergency call outs shall be available 7 days per week for the duration of the construction.
- Temporary tie-ins shall be graded no steeper than 1 in 8, although during working hours a maximum of 1 in 5 may be approved for short duration work.
- At all times the wearing surface throughout the construction site shall be a tight, homogenous surface with no loose material or unsound areas. The wearing surface shall allow traffic to travel safely in all weather conditions.

Your Traffic Management Plan (RTA G10 Clause 1.3) must incorporate your construction staging arrangements for all relevant site activities and shall include details of how accesses will be maintained to adjacent properties. Review the Traffic management Plan regularly to address any problems experienced with traffic management or access to properties.

11 PUBLIC UTILITY

11.1 PROTECTION OF EASTERN GAS PIPELINE

The Eastern Gas Pipeline is owned by Alinta Pty Ltd and transmits high-pressure natural gas from Victoria to west of Sydney. It is located in a 20m wide pipeline easement alongside the existing road. Warning signs are strategically placed on the easement for the entire pipeline route. The high tensile steel pipework is protected from external corrosion by a 0.4mm outer coating of fusion-bonded epoxy and by a cathodic protection system. This protection system is sensitive to external loading and vibration.

Your site personnel (including subcontractors) must attend an Eastern Gas Pipeline Induction Course run by Alinta (about 1 hour) before they commence work on the construction site. Alinta requires 3 working days notice to run their Induction Courses. Maintain an induction register (refer RTA G36 4.5).

You must give the Principal 14 calendar days notice prior to commencing any construction activities within 15m of the pipeline. The Principal will then arrange for Alinta to peg the location of the pipeline, undertake a “baseline” coating defects survey and carry out (if required) any coating repairs.

You must erect temporary exclusion fencing and control the movement of construction plant and vehicles to prevent any plant item or vehicle coming within 2 metres of the pipeline.

If it becomes necessary for plant or vehicles to cross the pipeline, you must obtain prior approval from Alinta (via the Principal) and install any pipeline protection measures required by Alinta (such as earth ramps or steel plates). Any plant crossings must be at right angles to the pipeline. Submit details of pipeline protection measures to the Principal at least 7 calendar days before the date you plan to install the pipeline protection measures.

Vibration at the pipeline caused by construction activities must be controlled (as part of your Vibration Management Plan - refer RTA G36 6.8). The “vector sum” Peak Particle Velocity measured at the pipeline must **never** exceed 20 mm/second. When blasting the “vector sum” Peak Particle Velocity measured 50m from the pipeline must **never** exceed 10 mm/second.

In addition, hand held jack hammers must not be operated within 5 m of the pipeline. Cranes or excavators are not permitted to carry or suspend materials over or across an exposed pipeline.

Before commencing compaction activities and any other vibration-generating activities, apart from rock blasting, undertake a vibration trial to determine the safe operating distance for each item of plant, plus the upper-limit “component” Peak Particle Velocities in radial, transverse and vertical directions corresponding to the “vector sum” Peak Particle Velocity of 20 mm/second. You must use flashing lights attached to vibration monitors, triggered by vibrations in excess of the component Peak

Particle velocities, to provide operators of vibrating rollers and other vibration-generating plant with “real-time” warning of vibration exceedances.

HOLD POINT

Process Held.	Commencement of any excavation by hammering or ripping, dynamic compaction or other activities which may cause damage to the pipeline through vibration.
Submission Details.	Results of vibration trial, safe operating distances and upper-limit “component” Peak Particle Velocities for each item of plant.
Release of Hold Point.	The Principal will consider the submitted documents for compliance prior to authorising the release of the Hold Point.

You must install vibration monitors along the pipeline at intervals not exceeding 400m on sections of the road where vibrating rollers, excavator-mounted hydraulic hammers or other vibration-generating equipment are operating, to continuously monitor the vibration.

HOLD POINT

Process Held.	Commencement of any excavation by hammering or ripping, dynamic compaction or other activities which may cause damage to the pipeline through vibration.
Submission Details.	Locations where vibration monitors have been installed.
Release of Hold Point.	The Principal will consider the submitted documents for compliance prior to authorising the release of the Hold Point.

Operate these monitors in continuous monitoring mode at a recording interval not longer than 10 minutes, with a minimum recording threshold of 10 mm/second.

Initially review the vibration monitor readings each day to identify any trends towards vibration exceedances due to factors such as changing rock profiles. The review period may be relaxed to weekly after the Principal has agreed that your vibration controls are reliable. Retain the vibration records on site and make them available to the Principal on request. Revert to daily reviews when geological profiles or construction methods are likely to cause an increase in measured Peak Particle Velocities or if the specified vibration limits are exceeded. Submit a weekly written report summarising the previous week’s vibration monitoring results (showing the 3 component velocities and the vector sum), by 9:00am on the following Monday morning (or next working day if the Monday is a Public Holiday or Rostered day Off”. Failure to submit the weekly report will mean the automatic imposition of a Hold Point on ALL work in the area covered by the report, until such time as the report has been submitted.

Conduct further vibration trials and adjust safe operating distances, as needed to ensure that the “vector sum” Peak Particle Velocity **never** exceeds 20 mm/second.

Within the Stage 2 section the gas pipeline crosses the new road at Ch 46100, Ch 46200, Ch 46640, Ch 48000 and Ch 49000. Stabilised sand protection has been installed around the pipeline at these locations.

Alinta does not permit excavation by blasting methods within 500m of the pipeline without strict controls and prior approval. You shall not use any blasting method without prior agreement to the

work methods from Alinta in writing. Approval for blasting within 50m to 500m of the Eastern Gas Pipeline will be considered by Alinta on a case by case basis providing the following conditions are met:

- The location and depth of blasting is to be stated together with the materials to be used and size of blast.
- Peak Particle Velocity measured 50 m back from the pipeline centreline, towards the blasting location, is not to exceed 10mm/sec.
- A report and statement from a qualified geotechnical consultant confirming that at the given location, blasting materials and quantity to be used will limit the peak particle velocities as required.
- On site monitoring equipment is to be installed on the surface of the ground 50 m from the pipeline towards the blast area to record the peak particle velocity of each blast.
- Full report and information is to be provided to Alinta and the Principal after each blast.

HOLD POINT

Process Held.	Commencement of any excavation by blasting within 500m of the Eastern Gas Pipeline.
Submission Details.	Agreement of Alinta to blasting and monitoring procedure, results of blasting trial (if required by Alinta), safe operating distances and upper-limit “component” Peak Particle Velocities for each location.
Release of Hold Point.	The Principal will consider the submitted documents for compliance prior to authorising the release of the Hold Point.

Where blasting is proposed for rock excavation you must install vibration monitors 50 m from the pipeline, towards the blasting location, at intervals not exceeding 50m on sections of the road where blasting is proposed for rock excavation.

After you complete pavement construction on any section of the road, the Principal will arrange for Alinta to undertake a “final” coating defects survey to compare against the “baseline” coating defects survey. Notwithstanding your implementation of the above vibration controls, you are liable for the cost of repair to any damage to the pipeline protection system resulting from vibration or other construction activity.

You are required to progressively notify when defined sections are completed to allow Alinta to carry out testing to check for coating defects.

11.2 PUBLIC UTILITY RELOCATION

Existing public utilities affected by the construction of MR92 will be relocated clear of the works prior to the Date of Contract. The Principal will arrange for the relocation of the public utilities. Works-as-Executed (WAE) information for the Optic Fibre will be provided by the Principal after the Date of Contract. The WAE information will include details of the plan location of the relocated utilities. The depth below existing surface is not provided (nominally 1.2m) and is the responsibility of the contractor to confirm where necessary.

While local Telstra lines have been relocated in advance of the Work no WAE plans are available. It is the responsibility of the Contractor to take the necessary measures to identify and avoid damage to all utilities

12 MILESTONE

Not Applicable

13 CONCURRENT WORK

Minor traffic delays may be experienced during rock anchoring work and monitoring (under separate contract) in the Bulee Gap area . Construction of at least part of the MR92 Upgrade Stage 3, the section between Ch 23.7 km and 44.2 km west of Hames Road, is likely to commence in 2008 before the completion of Stage 2 construction. In addition bitumen sealing of Stage 1 is likely to be carried out during the construction period. The Stage 3 Contractor would also share the site compound to be established at Sassafra, (Chainage 35000).

It is possible that final sealing of Stage 1, and construction work for Stage 3 could result in additional impacts eg traffic delays while hauling through the Stage 3 site. The Contractor shall allow in its rates and prices generally, for additional costs with working around these concurrent works.

14 PRE-QUALIFICATION AND REGISTRATION REQUIREMENTS

The Contractor shall be pre-qualified at Class R20 or higher. The bridgeworks shall be carried out by a contractor pre-qualified at Class B2 or higher.

Pre-stressed concrete bridge planks shall be manufactured by a contractor pre-qualified at Class CR.

The earthworks and drainage components of the work must be carried out by contractors registered with the RTA in Class E or D respectively or prequalified for roadwork. The erection of formwork for bridges must be carried out by contractors registered with the RTA in Class F or prequalified for bridgework.

The primary testing of the work (including sampling) must be carried out by contractors registered with the RTA in Class L2.

15 CHANGES TO QA MODEL SPECIFICATIONS

Clauses of the RTA QA Model Specifications that have been amended for this Contract are listed in Annexure G1/D.

16 MATERIALS SUPPLIED BY THE PRINCIPAL

National Parks gates (see RTA G1.24) are to be supplied by the Principal.

17 HISTORIC BUILDINGS

There are no historic buildings adjacent to this stage of the Project, however the Bulee Wool Road heritage sites require special protection and care (see details in G36).

18 USE OF STRUCTURES BY CONSTRUCTION PLANT

The Contractor is to ensure that Construction contractor (or through traffic) does not damage any structure (such as concrete box, pipe culverts, or Reinforced Soil Walls).

19 MAINTENANCE OF MR92 AND LOCAL ROADS

You are responsible for maintenance of the entire section of Stage 2 of the MR92 Upgrade, (Braidwood Road between 44.2 km – 53.4km west of Hames Road, Nowra) plus any local roads that you use for haulage for the duration of the Contract. Requirements for maintenance are included in Clause 10 above and in RTA G10.

20 ESTIMATED EARTHWORKS QUANTITIES

Estimated earthworks quantities shown in the Drawings are based on the following:

- natural surface determined by MX survey for design purposes
- estimated volumes indicate the volume of excavation and compacted fill assuming that 10% of the cut volume was solid rock and that it bulked at a rate of 40% when placed into the compacted fill.. It was also assumed that the remainder of the cut volume consolidated by a factor of 11% when finally compacted.
- estimated excavation volumes are based on the depth to the underside of the selected material zone after removal of topsoil.
- estimated volumes for general fill are calculated to the underside of the selected material zone and allow for replacing topsoil.
- estimated earthworks quantities do not allow for replacement of unsuitable material, if encountered.

Earthworks and pavement quantities shown on the Drawings assume that the existing pavement is excavated as earthworks material over the full length of each section of road down to the underside of the selected material zone.

The Principal wants to provide a balanced cut-fill situation with no borrow material and limited excess material to be spoiled. In conjunction with implementing your Earthworks Plan (refer RTA R44 Clause 1.7), you are required to report on the reconciliation of earthworks quantities on a monthly basis, both for monitoring purposes and as early warning should an imbalance require remedial action.

Where you anticipate that surplus excavated material will be generated liaise with the Principal progressively during each month to obtain directions on how to dispose of such material (refer RTA R44 Clause 2.5.1).

21 CO-ORDINATION AND REVIEW

The Principal will convene regular Site Meetings (refer RTA G2 Clause 23) to review progress, co-ordinate with adjacent works and consider any issues relating to this project. You must be represented at these meetings by at least your Project Manager and construction supervisor.

Prepare and distribute one week prior to each project co-ordination meeting, a report on the following:

- Scheduled Progress in accordance with the Contract Program and the actions necessary if not achieving Scheduled Progress,
- quality status, conformance results, nonconformance and corrective action close-outs,
- effectiveness of environmental control measures,
- effectiveness of safety control measures,
- payment claims, work completed but not claimed, plus cash flow forecast in accordance with clause 22 below,
- any variations or extension of time claims (current and proposed),
- traffic control and construction staging,
- community issues and/or complaints,
- potential delays and construction problems.

22 CASH FORECASTING

With each monthly payment claim submitted, include a monthly cash flow for the remaining duration of the Work. No additional payment will be made for providing this additional information.

23 COMMUNITY LIAISON

You are responsible for advising the local community of construction activities that could directly affect the community (refer RTA G36 Clause 4.8). Prior to releasing such advice, you must give the Principal at least two weeks notice of the advice. Nominate a contact person and their telephone number for community enquiries about operational matters relating to construction activities.

24 NPWS (DEC) GATES AND BOUNDARY MARKERS

Erect NPWS gates supplied by the Principal at the locations indicated on the Drawings. Gate posts, hinges and accessories will also be supplied by the Principal.

The set-out of the gates constitutes a HOLD POINT.

HOLD POINT

Process Held:	Erection of NPWS gates.
Submission Details:	Notice that set out is complete.
Release of Hold Point:	The Principal may inspect the set out, prior to authorising the

release of the Hold Point.

After sinking gate posts, backfill post holes full depth with 20 MPa concrete complying with RTA R53.

Erect gates so that they swing away from the road. At the location of gates, the ground or finished surface material must be levelled over the full area of the arc of the gate opening.

Identify, retain and protect NPWS boundary markers adjacent to the road reserve.

25 SCHEDULE OF DRAWINGS

The Drawings which form part of this Contract are:-

- 1. Roadworks Drawings**
Registered No 0092 404 RC 2731 comprising 250 sheets (last sheet number is 270)
- 2. Supplementary Drawings**
Supplementary Drawings in separate volume.
- 3. Bridgeworks Drawings**
Registered No 0092 404 BC 2731 comprising 21 sheets
- 4. The Wool Road Heritage Features**
Registered No 0092.404.MW.0002 (Sheets 1-5)

ANNEXURE G1/A – (NOT USED)**ANNEXURE G1/B – MEASUREMENT AND PAYMENT****Pay Item G1 P1 – Vibration Monitoring Along Eastern Gas Pipeline**

This shall be a Lump Sum item.

The Lump Sum shall include all activities associated with monitoring vibration along the Eastern Gas Pipeline, in accordance with Clause 11.1.

Progress payments shall be made on a pro-rata basis of work done under this item, having due regard to the duration of the Contract.

Pay Item G1 P2 – Erect NPWS (DEC) Gates

The unit of measurement must be “each” NPWS gate erected, in accordance with Clause 24.

Payment must include allowance for:

- (a) pick up and transport to site of gates supplied by the Principal stored at the DEC Office at Flat Rock Road, West Nowra
- (b) supply and place concrete;
- (c) erection of gates;
- (d) any work needed to prevent access around the gates.

ANNEXURE G1/C - SCHEDULES OF HOLD POINTS, WITNESS POINTS AND IDENTIFIED RECORDS**C1 SCHEDULE OF HOLD POINTS AND WITNESS POINTS**

Clause	Hold/Witness Point	Description
5	HOLD	Proposed location of stockpile sites
11	HOLD	Vibration trial prior to commencement of any excavation by hammering or ripping, dynamic compaction or other activities which may cause damage to the Eastern Gas Pipeline through vibration
11	HOLD	Advice regarding location of vibration monitors prior to commencement of any excavation by hammering or ripping, dynamic compaction or other activities which may cause damage to the Eastern Gas Pipeline through vibration
24	HOLD	Set out for NPWS gates

C2 SCHEDULE OF IDENTIFIED RECORDS

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

Clause	Description of the Identified Record
11	Vibration monitoring records.

ANNEXURES G1/D– CHANGES TO QA MODEL SPECIFICATIONS

Spec. No.	Clause No.
G2	Changes to – 42, Annexure G2-C2/A, Annexure G2-C2/B
G4	Changes to – 2, 4, 8, Annexure G4/A, Annexure G4/B
G10	Changes to – 1.3, 1.5, 2.1, 2.5, 2.8, Annexure G10/A, Annexure G10/B
G22	Changes to – Annexure G22/A
G36	Changes to – 4.1.1, 4.1.2, 4.4, 4.5, 4.6, 4.7, 4.8, 4.10, 4.11, 4.14.1, 5, 6.1, 6.3, 6.4, 6.5.1, 6.5.2, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12.1, 6.13, 6.14, 6.16, Annexure G36/B
G38	Changes to – 2, 3.1, 3.2, 3.5, 4.1, 4.2, 6, Annexure G38/A, Annexure G38/B
G40	Changes to – 2.1, 2.2, 2.3, 2.4, 4.1, 4.2, 5, Annexure G40/A, Annexure G40/B
G71	No changes
Q6	Changes to – Annexure Q/A1
R11	Changes to – 3.4.2, Annexure R11/B
R15	No changes
R16	Changes to – Annexure R16/A, Annexure R16/D
R23	No changes
R32	Changes to – Annexure R32/A
R33	No changes
R44	Changes to – 1.7, 2.3, 2.7.1, 3.2.2, 3.4, 4.1, 5.2, 7.2.1, 7.2.2, 8, Annexure R44/A, Annexure R44/B
R50	Changes to – Annexure R50/A
R53	No changes
R55	Changes to – 4.1
R57	Changes to – Annexure R57/A
R58	No changes
R63	Changes to – Annexure R63/1
R71	Changes to – 3.5.2, 3.5.4, 3.7, 3.8, 3.8.1, Annexure R71/1
R106	Changes to – 2.4.1, Annexure R106/B
R107	Changes to – Annexure R107
R131	Changes to – 3.3
R132	Changes to – 1.2, 2.4, 4.2.2, 4.5, 4.6, 5, Annexure R132/1, 2, 3, 4, & 6
R141	Changes to – Annexure R141/A
R142	Changes to – 3.2.2 and 6

Job Specific Requirements**G1**

Spec. No.	Clause No.
R143	Changes to – 5, 7, Annexure R143/1 Added clauses – 5.1 and 5.2
R161	Changes to – 2.3.1, Annexure R161/B Added clauses – 3.10, 3.11, 3.12
R173	Changes to – 1.1, 1.2.2, 3, 4, 6.1, 6.2, 8, Annexure R173/B,C &M
R178	Changes to – 1.1, 2.1.1, 2.1.2, 2.4, 2.6, Annexure R178/A,B &C
RW68	Changes to – 4.2
B30	Changes to – 4.1, 4.6, Annexure B30/B
B59	No change
B80	Changes to – Annexure B80/A
B110	No change
B114	Changes to – Annexure B114/1
B115	No change
B150	No change
B170	No change
B200	No change
B204	No change
B220	No change
B240	No change
B241	No change
B260	No change
B264	No change
B280	No change
B281	No change
B284	No change
B310	No change
B312	Changes to – Annexure B312/A
B344	No change
B345	No change
3051	Changes to – Annexure 3051/1
3053	No change
3054	No change
3071	Changes to – 5, Annexure 3071/A
3151	Changes to – Annexure 3151/1, Annexure 3151/2
3202	No change
3204	No change
3211	No change
3252	No change
3253	No change
3254	No change
3258	No change
3259	No change
3261	No change
3268	No change
3269	No change
3351	No change
3352	No change
3353	No change
3354	No change
3385	No change

G1

Job Specific Requirements

Spec. No.	Clause No.
3400	No change
3411	No change
3412	No change
3552	No change
3553	No change

ANNEXURES G1/E TO G1/L – (NOT USED)

ANNEXURE G1/M – REFERENCED DOCUMENTS

RTA Specifications

RTA Q Quality Management System