



**DUBBO
REGIONAL
COUNCIL**

TECHNICAL SCHEDULE

DRC-W402

**PERIODIC INSPECTION OF WATER AND
SEWER SITES**

TECHNICAL SCHEDULE DRC-W402 – PERIODIC INSPECTION OF WATER AND SEWER SITES

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DRC-W402: PERIODIC INSPECTION OF WATER AND SEWER SITES

DRC-W402.1 SCOPE

This Specification applies to the periodic inspection of the Principal's sites for key water supply and sewerage assets which would typically include treatment plants, pumping stations and reservoirs. The purpose of periodic inspection and recording is to monitor the performance and operation of the asset and identify any issues for maintenance or replacement.

The work required to be performed under this Contract shall comply with the referenced documents in Clause DRC-W402.2, unless specified otherwise herein. Details of the sites to be inspected under this Contract will be outlined in the project specific Scope of Work document.

DRC-W402.2 REFERENCED DOCUMENTS AND STANDARDS

The following documents are referred to in this Specification. The latest version of the document, including any published amendments, shall apply. Where the drawings or a project specific specification are in conflict or inconsistent with these referenced documents or this Specification, then the details on the drawings or project specific specification shall apply.

Australian Standards

AS 2865 Confined spaces

Works shall also comply with the current versions all other relevant Australian Standards where not specifically listed above.

Water Services Association of Australia Standards

WSA02 Gravity Sewerage Code of Australia
WSA03 Water Supply Code of Australia
WSA04 Sewage Pumping Station Code of Australia

DRC-W402.3 EXTENT OF WORK

The inspection work shall typically be based on the following general process:

1. Contact the Principal's site representative/s (where applicable) and arrange site access;
2. Visit site, report to the Principal's site representative and participate in any relevant site induction applicable for the particular site;
3. Inspect the nominated plant and equipment in accordance with the relevant inspection schedule and/or inspection pro-forma;
4. Advise the Principal's site representative of any significant issue identified requiring urgent maintenance; and
5. Complete inspection recording and reporting.

The nature of the required inspections would typically be either of the following types, however other inspections may be specified by the Principal:

- Asset Condition Assessment
- Operational Inspection

DRC-W402.4 ASSET CONDITION ASSESSMENT

The Contractor shall undertake an annual conditions assessment for the nominated sites and any additional plant and equipment specified. Unless specified otherwise, the Contractor shall undertake the condition assessment every 12 months from the initial assessment. The aim of the condition assessment is to comprehensively identify and quantify the following:

- General condition of the site and each of its components;
- Deficiencies that need to be attended to immediately to maintain the asset in an operable condition and meet statutory requirements;
- Major plant or equipment replacements, modifications or additions that would not normally form part of scheduled maintenance, but are required to be carried out within the next 12 to 18 months for the asset to be in a condition consistent with the requirements for proper operation; and
- Replacements, modifications or additions normally part of preventative maintenance which are considered necessary over the next 10 years to keep the asset in a condition consistent with the requirements for proper operation.

The Principal has the following approved condition definitions for its Asset Management System. This should be referred to and adopted in the reporting of the condition of assets:

| Level | Condition | Description |
|-------|-----------|--------------------------------------|
| 5 | Very Poor | Urgent renewal/upgrading required |
| 4 | Poor | Renewal required |
| 3 | Average | Maintenance work required |
| 2 | Good | Only minor maintenance work required |
| 1 | Excellent | No work required |

DRC-W402.5 OPERATIONAL INSPECTION

Regular operational inspections are carried out to confirm the asset is functioning correctly and to test the contingency measures provided at the site.

Operational inspections are typically based on Failure Modes Effects and Criticality Analysis (FMECA) principals, which are used to assess the requirements for both reactive and preventative maintenance. Pro-forma checklists for regular operational inspections are based on these considering the following parameters:

- The function for each major asset component.
- All functional failure modes.

- The effects of each functional failure at a local and system level, along with any potential impacts that the failure could have.
- How each failure mode could be detected.
- The reactive maintenance that is required to rectify a failure.
- The preventative maintenance activities to be carried out to minimise failures.

The Contractor shall undertake operational inspections based on the pro-forma provided by the Principal and at the frequency stated in the contract specific Scope of Work document.

DRC-W402.6 LABOUR, PLANT AND MATERIALS

The Contractor shall provide at its own cost and expense all labour, materials, plant, tools and equipment necessary for the proper and complete performance of the Contract.

DRC-W402.7 WORKPLACE HEALTH AND SAFETY (WHS)

All costs associated with ensuring a safe work environment for the implementation of the works shall be deemed to be included in the tender price.

The Contractor shall ensure that in the performance of the Works, the Contractor's employees, sub-contractors and employees of such sub-contractors shall observe the Statutory Safety Regulations and Site Conditions for Contractors.

Within 28 days of the Date of Acceptance and prior to the commencement of work, the Contractor shall submit to the Superintendent details of the Contractor's WHS Management System, including a Hazard and Risk Assessment and a Safety Plan specific to the Contract covering all of the Contractor's activities for the duration of the Contract.

For works in confined spaces the Contractor is to conform to the requirements of the Work Health and Safety Act 2011 and AS 2865.

The Contractor shall provide medical treatment facilities and first-aid personnel to at least the minimum standards required by Workplace Health and Safety legislation.

As soon as possible following their occurrence, the Contractor shall report to the Superintendent any injuries likely to require medical treatment or involving lost time. In addition, the Contractor shall report to the Superintendent all injuries and near misses.

The Contractor shall manage and report all safety and security matters relating to his sub-contractors as if they were his own personnel.

Copies of the Safety Plan and records of all safety and security reporting over the duration of the Contract shall be held on site, readily accessible for inspection by the Superintendent. The Superintendent shall carry out, from time to time, ad-hoc audits of the Contractor's safety systems onsite. The Contractor shall attend all safety audits. The cost for participation in safety audits shall be included in the tender price.

DRC-W402.8 SITE INDUCTION

The Contractor may be required to undertake a Site Specific Induction for each site, performed by the Principal's representative. At the initiation of the Contract, the Contractor shall confirm which sites have a site induction requirement with the Principal. Where required, completion of the Site Specific Induction is a condition of the Contractor having access to the site.

DRC-W402.9 SITE ACCESS AND PARKING

Site access and parking shall be restricted to the designated entries, loading zones and commercial parking spaces as provided to the general public. Most of the Principal's sites have limited off street parking and it is the responsibility of the Contractor to familiarise itself with each site's access restrictions. Where off street parking is available at the site, the Contractor shall ensure that vehicles are parked in the designated parking areas and not restrict access to any aspects of the site.

DRC-W402.10 TRAFFIC

The Contractor shall carry out the work in such a manner as to minimise interference to the flow of traffic and pedestrians and shall comply with the standard Principal requirements.

Where work is required to be undertaken in the vicinity of an existing roadway, the Contractor shall develop and maintain a traffic management system that complies with the Transport for NSW (TfNSW) manual for *Traffic Control at Work Sites*, AS 1742, SAA HB81 and satisfies the requirements of the relevant road authorities. The Contractor shall submit the Traffic Management Plan to the relevant road authority and the Superintendent at least seven days prior to the commencement of works.

Traffic control and public safety devices are to be provided by the Contractor. Methods and devices are to comply with Australian Standards, WorkCover Authority requirements, RMS requirements, and any other relevant standards of practice.

The Contractor shall not divert traffic onto any temporary routes, or close any roadway, without prior written approval from the Superintendent.

Where traffic or parked vehicles make it impracticable or hazardous to carry out the work during normal working hours the Contractor may apply to the Superintendent for approval to perform the work outside of normal working hours.

DRC-W402.11 NOISE

The Contractor shall conduct operations such that noise and other objectionable nuisances associated with the works are minimised. Where in the opinion of the Superintendent, operations are such as to warrant complaints on account of excessive noise or other nuisances, the Superintendent shall have the power to instruct that all work will cease until such time as the problem is rectified by the Contractor.

DRC-W402.12 EQUIPMENT STUCK IN CONDUITS

If any of the Contractor's equipment becomes stuck in a conduit, such that it cannot be removed without excavation, the Contractor is to notify the Superintendent immediately upon becoming aware of the problem.

The Contractor shall be responsible for removal of any trapped equipment and shall wear all risks and bear all costs associated with the removal of the equipment. The Contractor is permitted to use his own or subcontracted resources for excavation and breaking into the conduit to retrieve equipment. Any conduit damaged by this operation is to be reinstated to the satisfaction of the Superintendent, and must be inspected by the Superintendent's representative prior to being backfilled. The Contractor shall restore all surfaces to the satisfaction of the Superintendent.

DRC-W402.13 RECORDING AND REPORTING

The Contractor shall record details of the inspection on the report pro-forma. Where provided by the Principal prior to the inspection, the Principal's pro-forma shall be used. Where pro-formas are not provided by the Principal, the Contractor shall provide suitable pro-formas for recording the inspection and obtain the Superintendent's approval to the use of these prior to the commencement of the inspection.

In addition to the written report, the Contractor shall also prepare and provide still photographs showing the condition of key components covered by the inspection.

Upon completion of the inspections a detailed report of the site is to be presented to the Superintendent including still photographs and completed pro-formas.