CONTRACT NO. TEN/0167

TENDER INVITATION

DESIGN AND CONSTRUCT

WOODGATE VACUUM SEWER EXTENSION

DECEMBER 2016
Contents

1 INTRODUCTION .................................................................................................................. 4
  1.1 Preamble ......................................................................................................................... 4
  1.2 Background to Woodgate Project .................................................................................... 4
  1.3 Overview of Procurement Process .................................................................................. 4

2 DESCRIPTION OF WORKS ................................................................................................. 4
  2.1 Project Objectives .......................................................................................................... 4
  2.2 Broad Scope Definition .................................................................................................. 5
      2.2.1 SCOPE OVERVIEW ............................................................................................... 5
  2.3 Stakeholders ................................................................................................................... 5
  2.4 Licences, Registrations, Plans, Permits, Approvals and Certificates .............................. 6

3 PROCUREMENT PROCESS ................................................................................................ 6
  3.1 Procurement Objectives ................................................................................................ 6
  3.2 Process .......................................................................................................................... 6
  3.3 Form of Engagement ...................................................................................................... 6
  3.4 Evaluation Criteria ......................................................................................................... 7
      3.4.1 GENERAL ............................................................................................................... 7
      3.4.2 VALUATION CRITERIA ......................................................................................... 7
  3.5 Evaluation Panel ............................................................................................................ 7
  3.6 Procurement Process Timetable ..................................................................................... 8
  3.7 General Conditions of Contract (AS4300) ..................................................................... 9
  3.8 Principal’s Project Requirements (PPR) ......................................................................... 16
  3.9 BRC Advisors and Consultants ....................................................................................... 16

4 SUBMISSION REQUIREMENTS AND LODGEMENT DETAILS ......................................... 16
  4.1 General .......................................................................................................................... 16
  4.2 Format of submission ..................................................................................................... 16
  4.3 Submission Details ......................................................................................................... 17
  4.4 Design Submission ......................................................................................................... 17
  4.5 Authority to Sign ............................................................................................................ 17
  4.6 Lodgement of Submission .............................................................................................. 17
      4.6.1 CLOSING TIME AND DATE FOR LODGEMENT ............................................. 17
      4.6.2 ELECTRONIC SUBMISSION VIA LG TENDER BOX ...................................... 17
      4.6.3 LATE SUBMISSIONS ............................................................................................ 18
  4.7 Enquiries ......................................................................................................................... 18
  4.8 Opening of Submissions ................................................................................................. 18

5 PROCEDURAL MATTERS .................................................................................................... 18
  5.1 Validity of Submission and Withdrawal ........................................................................ 18
5.2 Confidentiality and Right to Information ................................................................. 19
5.3 Costs Bourn by Tenderers ......................................................................................... 19
5.4 BRC Discretion ........................................................................................................ 19
5.5 No Legal Relationship ............................................................................................. 20
5.6 Obligations of BRC ................................................................................................. 20
5.7 Disclaimer ................................................................................................................ 20
5.8 Tenderer’s Legal Obligations .................................................................................... 21
5.9 Decision to Proceed ................................................................................................. 21
5.10 Acknowledgement and Warranty by Tenderer ....................................................... 21
5.11 Additional Information and Clarification .................................................................. 21
5.12 Ownership of Submissions ..................................................................................... 22
5.13 Notice to Tenderers .................................................................................................. 22
5.14 Privacy Act Compliance ......................................................................................... 22
5.15 Due Diligence Checks ............................................................................................ 22
5.16 Glossary of Terms .................................................................................................... 23
1 INTRODUCTION

1.1 PREAMBLE

The Conditions of Tendering have been prepared in accordance with the obligations of the Principal contained in the Australian Standard AS 4120, Code of Tendering, which sets out the ethics and obligations of the Principal and Tenderers in tendering in the construction industry.

Tenderers and Principal shall comply with the requirements of this AS 4120. In particular attention is drawn to the obligations of Tenderers, in the preparation and submission of their tender for this project.

Without limiting the above obligations:

- Tenderers shall not submit tenders without a firm intention to proceed.
- Tenderers must not engage in any form of collusive practice.
- Any Tenderer who directly or indirectly canvasses support from an elected member or servant of the Council will be disqualified.

1.2 BACKGROUND TO WOODGATE PROJECT

There is an existing sewer vacuum system in Woodgate with a Vacuum Sewer Pump Station (VPS1). Development is planned towards to north which necessitates an additional vacuum sewer system with a new Vacuum Sewer Pump Station (VPS2).

1.3 OVERVIEW OF PROCUREMENT PROCESS

The proposed Procurement Process for the Project involves:

- Public issue of this Tender Invitation to suitably qualified and experienced entities interested in participating in the delivery of the Project;
- Following evaluation of Tenders, and subject to the necessary Approvals being in place, BRC intends to enter into a Contract with the successful Tenderer to deliver the Project.

2 DESCRIPTION OF WORKS

2.1 PROJECT OBJECTIVES

BRC has defined the following key objectives for the Project:

<table>
<thead>
<tr>
<th>Key Result Area</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>Comply with legislative and statutory safety requirements during design, construction and commissioning activities. Comply with the Principal’s safety policy during construction.</td>
</tr>
<tr>
<td>Quality</td>
<td>Design and construct the Project to specified design and technical standards to ensure appropriate operational efficiency, Asset life and serviceability.</td>
</tr>
<tr>
<td>Licence compliance/ reputation</td>
<td>Meet or exceed all licence conditions and statutory requirements that relate to the Woodgate Vacuum Sewer System. Enhance the Principal’s reputation with the community and DEHP.</td>
</tr>
<tr>
<td>Integration</td>
<td>Seamless integration of Early Works.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Ensure the facility provides for reliable operations to avoid licence breaches and nuisance to adjoining stakeholders.</td>
</tr>
</tbody>
</table>
### 2.2 Broad Scope Definition

#### 2.2.1 Scope Overview

The scope of work is to design and construct Stage 1 of the recommended vacuum system upgrade as outlined following:

(a) Design and construction of a new vacuum pumping station, VPS2, sized for ultimate flow. Work to include all earthworks, concrete and building works service connections (i.e. power supply, water supply, SCADA connections), access road, landscaping and provision of security fencing and access gates;

(b) Design and construction of a two stage odour facility at VPS2;

(c) Design, supply and installation of all mechanical, electrical and instrumentation and control equipment required for the operation of the new works;

(d) Design and installation of a standby generator;

(e) Design and construction of a new DN150 rising main from VPS2 to the connection point at the corner of Frizzels and Woodgate Roads;

(f) Design and construction of DN150 water main from VPS2 to Eagle Road;

(g) Design and construct a new DN160 PE/125 PE spine vacuum sewer from VPS2 to Jaburi Court;

(h) Connect new spine vacuum sewer to existing vacuum system at five locations;

(i) Disconnect and seal existing vacuum system at seven locations;

(j) Carrying out all negotiations with relevant utilities required for carrying out the construction works;

(k) Arranging for the connection of any services required for the work including power, water supply and telephone including all connection fees and other associated charges;

(l) Restoring all disturbed areas to previous condition on completion of the works including fencing, landscaping, paths, driveways, roads, drains and structures;

(m) Commissioning, testing and attending to any defects during the defects liability period;

(n) Obtaining all approvals for the work;

(o) Provision of site security fencing;

(p) Earthworks including bulk excavation, detailed excavation, filling, foundations, earth retaining, dewatering where necessary, backfilling and surface restoration;

#### 2.3 Stakeholders

In order to successfully deliver the Project, BRC must consult and deal with a number of Stakeholders who have an interest in the Project. It is not anticipated that Tenderers will need to engage with all Stakeholders directly. However, Tenderers may be required to engage directly with certain Stakeholders at certain times in order to deliver the project.
Stakeholders for the Project include, but are not limited to:

- Bundaberg Regional Council;
- Department of Environment and Heritage Protection (DEHP);
- Local community and other Stakeholders affected by construction and operation of the sewer vacuum system (odour, noise, groundwater contamination, dust, security, access, etc.).

### 2.4 Licences, Registrations, Plans, Permits, Approvals and Certificates

The Contractor will be responsible for obtaining all necessary Approvals for the Project that have not been obtained by BRC.

Approvals already considered or acquired by BRC at the time of this Tender Invitation are as follows:

- A Cultural Heritage Application was submitted.

Tenderers will also be required to demonstrate that they hold all statutory licences required to perform the Works (including licences required under the *Queensland Building and Construction Commission Act 1991 (Old)*).

### 3 Procurement Process

#### 3.1 Procurement Objectives

The objectives of the Procurement Process are to:

- Provide an efficient, competitive environment that enables Tenderers to develop an optimised Tender that meets BRC Project Objectives and maximises value for money;
- Facilitate interaction with Tenderers throughout the Procurement Process to ensure that BRC’s requirements for the Project are well understood; and
- Establish the foundations for positive relationships under the Contract founded on a clear understanding of the legal, contractual and commercial framework.

#### 3.2 Process

The following process is proposed to select Contractor in response to this Tender Invitation. BRC may abbreviate or modify the process outlined below subject to the number and quality of Submissions.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Tender called by public advertisement (This step has been undertaken and is included for completeness only)</td>
</tr>
<tr>
<td>Step 2: Non Price &amp; Price Evaluation</td>
<td>Evaluation of Tenderers. Details of the Evaluation Criteria are contained in Section 3.4.3.</td>
</tr>
<tr>
<td>Step 3: Selection of Tenderer</td>
<td>Based on the results of the above process, recommend award to Council</td>
</tr>
</tbody>
</table>

The Evaluation Panel may choose at any time during the Procurement Process to contact referees or make enquiries from other sources in order to verify information provided by Tenderers.

#### 3.3 Form of Engagement

The contract will be let as a Lump Sum on a fixed price basis, the contract shall not be subject to any variation in price contingent on variation in rates of wages, price of materials, or other factors.
3.4 Evaluation Criteria

3.4.1 General
There will be no Hurdle Criteria Evaluation

3.4.2 Valuation Criteria
The Tenderer is expected to address all of the evaluation criteria set out in Table 3-1 below.

<table>
<thead>
<tr>
<th>Table 3-1 Evaluation Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Evaluation Criteria and relative overall weightings</strong></td>
</tr>
<tr>
<td>Financial Score</td>
</tr>
</tbody>
</table>

| **Non-financial Evaluation Criteria and relative overall weightings** |
| Encouragement of the development of competitive local business and industry | Assessment by the Evaluation Panel of the Tenderer’s: | 10% |
| - Creation of local employment opportunities; | | |
| - Economic growth within the local area; | | |
| Design, technical and construction experience and capability | | 10% |
| - Demonstrated corporate experience and capability in design, construction and commissioning of similar vacuum sewer systems; and | | |
| - Demonstrated experience and track record of nominated design and technical personnel in design and commissioning of similar vacuum sewer systems. | | |
| Demonstrated understanding of Works under Contract | | 10% |
| - Detailed project methodology including methods of incorporating the existing vacuum system into the new system; | | |
| - Logical and realistic delivery program consistent with Project timeframes. | | |
| Project Risk and Opportunity | Assessment by the Evaluation Panel of the Tenderer’s: | +/-10% |
| - List of Departures / Qualifications / other conditions included within the tender submission | | |
| - Project delivery risks due to methodology / programme / resources. | | |

3.5 Evaluation Panel
An Evaluation Panel has been established to assess Tenderers during the Procurement Process. The Evaluation Panel comprises:
- Jeff Rohdmann – Manager Water & Wastewater Process Operations
- Paul Viljoen – Water & Wastewater Capital Projects Engineer
- Craig Sheather – Project Manager, Major Projects

In the event that one or more Evaluation Panel member becomes unavailable for any reason, BRC reserves the right to continue the Procurement Process without that person or to appoint a substitute.

The Evaluation Panel may brief and/or receive advice from any one or more advisors.

The Evaluation Panel will follow the processes and evaluation criteria outlined in this Tender Invitation and will
use the outputs of these processes as an assessment tool, but will rely on its combined judgement and experience in arriving at its recommendations to BRC.

Other than as specifically provided for in this Tender Invitation, prospective Tenderers must not under any circumstance make contact or communicate with BRC elected representatives, officers, advisors or members of the Evaluation Panel in relation to the Project or the Procurement Process. Any reported contact outside of the designated processes may lead to exclusion of the Tenderer from further participation in the Procurement Process and the Project.

3.6 PROCUREMENT PROCESS TIMETABLE

BRC plans to appoint the Contractor by mid March 2017. To meet this timeframe the dates shown in Table 3-3 are proposed for the Procurement Process.

<table>
<thead>
<tr>
<th>Table 3-3 PROCUREMENT PROCESS TIMETABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage</strong></td>
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<tr>
<td>Tender</td>
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<td></td>
</tr>
<tr>
<td>Design &amp; Construct</td>
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<tr>
<td></td>
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</tbody>
</table>

Note: The above dates are indicative and subject to change as required during the process.

3.7 MANDATORY SITE INSPECTION

A mandatory site inspection and briefing meeting shall be held at 2.00 pm AEST Tuesday, 17 January 2017 for prospective tenderers. Tenderers are to register their interest in attending a pre-lodgement site meeting through LG Tender Box online forum. Failure to attend the mandatory site inspection and briefing meeting shall exclude prospective tenderers.
3.8 **GENERAL CONDITIONS OF CONTRACT (AS4300)**

The General Conditions of Contract to be used in this Contract shall be Australian Standard 4300-1995, "General Conditions of Contract for Design and Construct" (including Annexures), subject to the additions, deletions, substitutions and amendments set out hereafter.

Copies of AS 4300-1995 may be obtained from the Standards Association of Australia, PO Box 290, Spring Hill, BRISBANE, 4000.

The following Clauses have been added to those of AS4300-1995:

8.8 **Design Obligations and Design Documents Requiring Permission to Use**

a) The Contractor must submit a design report to the Superintendent for review and comment at the 80% design review stage.

b) The Contractor must carry out the Contractor's Design Obligations in accordance with the Contract and the Principal's Project Requirements.

c) The Contractor must not commence the manufacture, fabrication, erection or construction of any part of the Works in respect of which Design Documents are required unless and until:

   i. the relevant Design Documents for that part of the Works have:
      a. been RPEQ certified by the Subcontractor who prepared them; and
      b. been RPEQ certified by the Contractor; and
   
   ii. the relevant Design Documents for that part of the Works have been submitted to the Superintendent under Clause 8.4 of the GCoC and either:
      a. the Superintendent has given the Contractor a written notice that the Contractor has permission to use those Design Documents for the execution of the Works; or
      b. the Superintendent is deemed pursuant to Clause 8.8(g) to have given such permission.

d) At the time of submitting such Design Documents to the Superintendent, the Contractor must notify the Superintendent that they are documents to which Clause 8.8 applies.

e) Within 14 days after the receipt by the Superintendent of any Design Documents which have been so identified, the Superintendent may (without being obliged to do so) give the Contractor written notice notifying that:

   i. the Contractor has permission to use the Design Documents for the execution of the Works; or

   ii. the Contractor does not have such permission.

f) If the Superintendent notifies the Contractor that it does not have such permission, the Superintendent must give reasons why permission was not given and the Contractor must promptly submit new or amended Design Documents to the Superintendent and this Clause 8.8 applies to those documents.

g) If the Superintendent fails, within the 14 day period mentioned in Clause 8.8(e), to notify the Contractor in writing whether or not it has permission to use the Design Documents, the Superintendent will upon the expiration of that period be deemed to have notified the Contractor that it has permission to use the Design Documents.
8.9 As Constructed Drawings and Manuals

a) As a condition precedent to Commissioning Completion, the Contractor must supply to the Superintendent, in addition to drawings and documents previously supplied in accordance with Clause 8.8 of the GCoC:
   i. 1 preliminary draft set of “as constructed” drawings which comply with the requirements of Clause 19 of the Principal's Project Requirements.

b) No later than 3 months after Commissioning Completion is achieved, and as a condition precedent to Practical Completion, the Contractor must supply to the Superintendent:
   i. 1 complete electronic final version of all drawings showing the levels, lines, positions, arrangements and dimensions of the Works as constructed.

c) The electronic version of the “as constructed” drawings must be provided on USB in AutoCAD format or such other format as the Superintendent may approve.

The following Clauses have been amended and differ from the corresponding Clauses in AS4300-1995:

Clause 5.4 Time for Lodgement of Security
Page 9 – Delete this Clause and replace it with the following:-

“Security shall be lodged within 14 days of the Date of Acceptance of the Tender. Failure to lodge security within that period shall be a substantial breach of Contract within the meaning of the Clause 44. The Superintendent reserves the right to withhold the security amount in the form of retention from the first progress payment upon the expiration of the 14 days from the Date of Acceptance of the Tender if the security has not been lodged within that time.”
ANNEXURE to the Australian Standard General Conditions of Contract for Design and Construct

This Annexure shall be completed and issued as part of the tender documents and subject to any amendments to be incorporated into the Contract, is to be attached to these General Conditions of Contract and shall be read as part of the Contract.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The law applicable is that of the State or Territory of: Queensland (Clause 1)</td>
</tr>
<tr>
<td>2</td>
<td>Payments under the Contract shall be made at: Bundaberg (Clause 1)</td>
</tr>
<tr>
<td>3</td>
<td>The Principal: Bundaberg Regional Council ABN: 72 427 835 198 (Clause 2)</td>
</tr>
<tr>
<td>4</td>
<td>The address of the Principal: PO Box 3130 Bundaberg QLD 4670 (Clause 2)</td>
</tr>
<tr>
<td>5</td>
<td>The Contractor: As appointed through formal instrument of agreement (Clause 2)</td>
</tr>
<tr>
<td>6</td>
<td>The address of the Contractor: As appointed through formal instrument of agreement (Clause 2)</td>
</tr>
<tr>
<td>7</td>
<td>The Superintendent: Project Manager Projects Bundaberg Regional Council (Clause 2)</td>
</tr>
<tr>
<td>8</td>
<td>The address of the Superintendent: PO Box 3130 Bundaberg QLD 4670 (Clause 2)</td>
</tr>
<tr>
<td>9</td>
<td>The date for Practical Completion: October 2017 (Clause 2)</td>
</tr>
<tr>
<td>10</td>
<td>Preliminary Design: (B) A Preliminary Design is included in the Principal’s Project Requirements and Appendices (Clause 2)</td>
</tr>
<tr>
<td>11</td>
<td>The Principal’s Project Requirements are Documents describing the Principal’s</td>
</tr>
</tbody>
</table>
described in the following documents (Clause 2)

12 Limits of accuracy applying to quantities for which the Principal accepted a rate or rates:
   Upper limit N/A
   Lower limit N/A (Clause 3.3(b))

13 Contractor shall provide security in the amount of:
   Provide 2 bank guarantees for 2.5% (each) of the total contract value (Clause 5.2)

14 Principal shall provide security in the amount of:
   Nil (Clause 5.2)

15 Retention moneys shall be deducted progressively as follows:
   N/A (Clauses 5.5 and 42.1)

16 The period of notice required of a party’s intention to convert security into cash or to have recourse to security or retention moneys:
   5 days (Clause 5.6)

17 The percentage to which the Principal’s entitlement to security and retention moneys is reduced:
   50% (Clause 5.8)

18 The percentage to which the Contractor’s entitlement to security is reduced:
   N/A (Clause 5.8)

19 Holding of and interest on cash security and retention moneys—the Alternative applying:
   Alternative Two (2) (Clause 5.10)

20 The number of copies of documents to be supplied by the Principal:
   One (1) hard copy and electronic copy (Clause 8.3)

21 Documents, number of copies, and the times or design stages at which they are to be supplied by the Contractor:
   One (1) hard copy and electronic copy. Timing as nominated in PPR (Clause 8.4)

22 The time within which the Superintendent must give a direction as to the suitability of documents:
   14 days (Clause 8.4)

23 Work which cannot be subcontracted without
   The whole of the works
approval:  
(Clauses 9.2)

24 Subcontractors or Selected Subcontractors  
whose contracts the Principal may direct be novated:  
N/A

25 The percentage for profit and attendance:  
N/A

26 Intellectual property rights granted to the  
Principal—the Alternative applying:  
Alternative One

27 Legislative Requirements not required to be satisfied by Contractor:  
No exceptions

28 Insurance of the work under the Contract — the Alternative applying:  
Alternative One

If Alternative 1 applies  
(a) The amount for demolition and removal of debris:  
Nil

(b) The amount for consultants’ fees:  
Nil

(c) The value of materials or things to be supplied by the Principal:  
Nil

(d) The additional amount or percentage:  
Nil

29 Public liability policy of insurance — the Alternative applying:  
Alternative One

30 If Alternative 1 applies the amount of public liability insurance shall be not less than:  
$10,000,000

31 Amount of Contractor’s professional indemnity insurance shall be not less than:  
$2,000,000
32 Period for which Contractor’s professional indemnity insurance shall be maintained after issue of the Final Certificate: One year

(Clause 21)

33 Categories of Consultants and amounts of Consultants’ professional indemnity insurance:

All categories $2,000,000 each

(Clause 21)

34 Period for which each Consultant’s professional indemnity insurance shall be maintained after issue of the Final Certificate: One Year

(Clause 21)

35 The time by which access to the Site shall be given: Seven (7) days

(Clause 27.1)

36 The time for giving possession of the Site to enable commencement of further work: Within 10 days of PTU of the Final 80% design material.

(Clause 27.1)

37 The times by, or periods within which the Superintendent is to furnish information, materials, documents or instructions to the Contractor: 14 Days

(Clause 33.1)

38 Events causing delay:

— industrial conditions Not Applicable
  (Clause 35.5(a)(i))

— inclement weather Applicable
  (Clause 35.5(a)(ii))

39 Rate of liquidated damages: $500 per day

(Clause 35.6)

40 Limit of liquidated damages: $50,000

(Clause 35.7)

41 Bonus for early Practical Completion: Nil

(Clause 35.8)
42 Limit of bonus: N/A
(Clause 35.8)

43 Other events for which extra costs for delay or disruption are payable: N/A
(Clause 36)

44 The Defects Liability Period: 12 months
(Clause 37)

45 The charge for overheads, administrative costs, site supervision, establishment costs, attendance and profit for Daywork: 10%
(Clause 41(f))

46 (a) Times under the Contract for payment claims: Last day of each month
(Clause 42.1)

47 Unfixed plant and materials for which payment claims may be made before they are incorporated in the Works: Nil
(Clause 42.2)

48 The amount of additional security for unfixed plant and materials: N/A
(Clause 42.2)

49 The rate of interest on overdue payments: 10% per cent per annum
(Clause 42.7)

50 The delay in giving access to the Site which shall be a substantial breach: 28 days
(Clause 44.7(c))

51 The delay in giving possession of the Site or sufficient of the Site which shall be a substantial breach: 28 days
(Clause 44.7(d))

52 Further steps required before proceedings—the Alternative applying: Alternative Two
(Clause 47.2)

53 The person to nominate an arbitrator: Chairman of the Institution of Engineers, Australia, Queensland Division
(Clause 47.3)
3.9 **Principal’s Project Requirements (PPR)**
Tenderers will be required to develop Tenders and deliver the Contract in accordance with the PPR prepared by BRC. The PPR specifies the functional requirements, constraints and standards for the Project and includes specifications for design, construction and commissioning. Tenders must address and comply with all requirements of the PPR.

3.10 **BRC Advisors and Consultants**
The following advisors or consultants have been engaged to assist BRC in relation to the Project:

<table>
<thead>
<tr>
<th>Advisor Role</th>
<th>Organisation</th>
<th>Exclusivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Advisor</td>
<td>McFaul &amp; Co Engineers Pty Ltd</td>
<td>Exclusive</td>
</tr>
</tbody>
</table>

The table above indicates whether BRC has engaged each advisor or consultant on an exclusive or non-exclusive basis.

Where advisors or consultants have been engaged under an “exclusive” arrangement they will not be available to provide any service or information to any Tenderer in relation to the Project. Other than as part of the designated Procurement Process, prospective Tenderer must not contact or have discussions with persons from the organisations listed as “exclusive” in connection with the Procurement Process or the Project. Any reported contact with such organisations outside the designated Procurement Process may lead to exclusion of the Tenderer from further participation in the Procurement Process and the Project.

Where the table above indicates that BRC has engaged an advisor or consultant on a “non-exclusive” basis, that advisor or consultant may be engaged by a Tenderer, however the advisor or consultant will be required to keep confidential and not disclose to any person the materials, information or knowledge obtained by acting as an advisor or consultant to BRC. The work undertaken by advisors or consultants to date on the Woodgate Vacuum Sewer project is of a conceptual/ preliminary nature. BRC does not consider that their previous involvement in the project will give any Tenderer engaging them any particular advantage in the Procurement Process.

4 **Submission Requirements and Lodgement Details**

4.1 **General**
This section outlines the requirements and lodgement details for the Submission.

4.2 **Format of Submission**
The Submission must:

- Be clear and concise;
- Provide the information as described in Section 4.3 using the Tender Response Forms provided in Volume 4;
- Provide information to enable the evaluation team to evaluate the criteria as stipulated in table 3.1.
- Provide only information that is relevant and requested; and
- Conform to the page limits stated in Table 4-1.
4.3 SUBMISSION DETAILS

Corporate brochures, marketing material and the like included in the Submission will not be considered by the Evaluation Panel. Unless otherwise indicated, information must be provided under the relevant criteria heading only, and not placed elsewhere in the Submission.

<table>
<thead>
<tr>
<th>Section</th>
<th>Detail</th>
<th>Page Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Covering letter</td>
<td>As required by Tenderer</td>
</tr>
<tr>
<td>2</td>
<td>Executive summary</td>
<td>Optional</td>
</tr>
<tr>
<td>3</td>
<td>Tender Forms</td>
<td>To be submitted in the forms provided in Volume 4: Form 1.1 – 1.15</td>
</tr>
<tr>
<td>4</td>
<td>Construction Programme</td>
<td>A pdf and electronic version of a programme developed with Microsoft Project</td>
</tr>
<tr>
<td>5</td>
<td>Evaluation Criteria Response</td>
<td>Provide relevant information to enable the evaluation team to evaluate the criteria as stipulate in table 3.1.</td>
</tr>
<tr>
<td>6</td>
<td>Design and Construct Schedule of Prices</td>
<td>Refer to Section 4.4 below</td>
</tr>
</tbody>
</table>

4.4 DESIGN SUBMISSION

The Tenderer must include a design submission prepared in response to the PPR. Design Documents must be progressed to a stage where the Tenderer is able to reasonably describe the proposed design, construction and commissioning methodology together with submission of commercial information including a D&C Schedule of Prices and a Contract Sum.

The design submission must include a preliminary design report including preliminary versions of the items listed in clause 14.2(a) of the PPR.

4.5 AUTHORITY TO SIGN

The Submission must be signed by an authorised representative of the Tenderer using the form contained in Volume 4: Tender Form.

4.6 LODGEMENT OF SUBMISSION

4.6.1 CLOSING TIME AND DATE FOR LODGEMENT

The closing time and date for lodgement of the Submission is:

2.00 pm AEST Tuesday 14 February 2017

4.6.2 ELECTRONIC SUBMISSION VIA LG TENDER BOX

Council will only accept Submissions submitted via the LG Tender Box.

LG Tender Box has been established to provide a comprehensive online tendering system for Councils and Government entities. This system allows Councils and Government entities to publish and manage their tender process through an efficient online portal, while gaining maximum exposure to the supply market.

You can register and view the site at www.lgtenderbox.com.au

Electronic submissions via LG Tender Box must be submitted before the closing time specified in
Section 4.6.1. Any Submission not lodged in the LG Tender Box before the specified closing time shall not be considered unless there is evidence satisfactory to BRC that such Submission was submitted prior to the closing time.

The final date for accepting questions regarding this Tender Invitation via any medium, including but not limited to the LG Tender Box Online Forum, is close of business Wednesday 8 February 2017. Any questions after this date will not receive a response.

4.6.3 LATE SUBMISSIONS

A Submission or additional non-solicited information received after the closing time and date referred to in Section 4.6.1 will be deemed a Late Submission. A Late Submission will be excluded from consideration unless BRC otherwise determines, in its absolute discretion and without having any obligation to do so, that it is appropriate for the Late Submission to be considered.

Tenderers are encouraged to upload their Submissions to LG Tender Box well in advance of the nominated closing time to allow for any data transmission delays or issues with the upload process. The Tenderer is responsible for ensuring that its Submission is lodged by the nominated closing time.

4.7 ENQUIRIES

All requests for information or clarifications prior to the date for lodgement of Submissions referred to in Section 4.6.1 must be directed through the LG Tender Box online forum.

At its absolute discretion, BRC may publish on the LG Tender Box forum any response to questions asked by a potential Tenderer. Tenderers may request that an enquiry be treated as commercial-in-confidence. BRC will decide at its absolute discretion whether to treat any enquiry as commercial-in-confidence.

BRC will only be bound by information provided to Tenderers via the LG Tender Box forum or in writing via other means in the case of enquiries agreed by BRC to be treated as commercial-in-confidence.

4.8 OPENING OF SUBMISSIONS

There will be a public opening of Submissions at the Bundaberg Administration Centre, 186-190 Bourbong Street, Bundaberg. Public opening shall commence at 2.30 pm on the date for lodgement of Submissions nominated in Section 4.6.1.

Council shall not be bound to communicate and/or advertise the value of Submissions of any Tenderer during public openings. Council will notify attendees at the public opening of the name and address of the Tenderer that has tendered for the respective Contract.

5 PROCEDURAL MATTERS

5.1 VALIDITY OF SUBMISSION AND WITHDRAWAL

By submitting a Tender (whether or not it complies in all respects with this Tender Invitation document), a Tenderer will be taken to have agreed, in consideration of BRC receiving the submission and commencing to consider it along with any other Submissions received, not to withdraw or amend its Tender within 90 days of the date for lodgement of the Submission (except with the prior written consent of BRC in its absolute discretion). Nothing in this paragraph limits the operation of Section 5.4 or is to be taken as imposing any obligation (contractual or otherwise) on BRC to receive or to consider any Submission from any Tenderer.

If a Tenderer purports to withdraw from any stage of the Procurement Process for any reason, then without prejudice to any other right or remedy that BRC may have, BRC may, in its absolute discretion continue the Procurement Process with another Tenderer with the next highest evaluation ranking.
5.2 CONFIDENTIALITY AND RIGHT TO INFORMATION

The Tenderer must keep confidential and not:

i. Disclose to any person; or

ii. Copy, use or otherwise deal with for any purpose, any information regarding the Project or BRC, except to the extent:
   a. The Tenderer is specifically authorised in writing by BRC; or
   b. The information is already in the public domain, otherwise than because of a breach by the Tenderer of these confidentially obligations.

Tenderers should note that the Right to Information Act 2009 (Qld) (the RTI Act) allows members of the public rights to be given access to certain documents held by public sector bodies (including BRC). These access rights are limited by exceptions and exemptions necessary for the protection of the public interest and private and business affairs of persons or organisations in respect of which information is collected and held by public sector bodies.

All or part of a Submission may be disclosed to third parties if there is a requirement to do so under the provisions of the RTI Act. Any information that is of a confidential nature or concerns the business, professional, commercial or financial affairs of a Tenderer, the disclosure of which could reasonably be expected to have an adverse effect on those affairs, may be exempt from disclosure under the RTI Act and should be marked by the Tenderer as follows:

RTI ACT - SENSITIVE BUSINESS INFORMATION

- Confidential to [entity name]
- Refer to [name and title of company representative who is claiming exemption]
- Telephone [direct telephone number]

Also, under the Local Government (Finance, Plans and Reporting) Regulation 2012, a local government must, as soon as practicable after entering a contract worth $200,000 (excluding GST) or more publish relevant details of the Contract on the local government’s website; and display relevant details of the Contract in a conspicuous place in the local government’s public office.

5.3 COSTS BOURN BY TENDERERS

The Tenderer shall not have any Claim of any kind against BRC or its advisors (whether in Contract, in tort including negligence, in equity, at law, under statute or otherwise) arising from or in connection with:

i. Any costs, expenses, losses or liabilities suffered or incurred by the Tenderer in preparing and submitting a Tender, including any amendments or requests for further information by BRC; or

ii. BRC exercising or failing to exercise, in its absolute discretion, any discretion, right or power it has under or in connection with the Tender or the Project.

5.4 BRC DISCRETION

BRC may conduct the process for the evaluation of Tenders and the selection of the Contractor in such manner as it thinks fit and, without limitation, may at its absolute discretion (without any obligation to do so):

i. Cancel the Procurement Process at any time by notice in writing to prospective Tenderers, short-listed Tenderers or Tenderers as applicable;

ii. Refuse to consider any Submission which;
   a. Is lodged by any means other than in accordance with this Tender Invitation;
   b. Is lodged after the date and time for lodgement referred to in Section 4.6.1;
   c. Does not conform with this Tender Invitation in any respect; or
   d. Has been lodged by a Tenderer who has not complied with this Tender Invitation;

iii. decide at any time to:
   a. Waive any irregularities in any Tender;
b. Not proceed with all or any part of the Project; or

iv. At any time, re-invite Submissions for the Project from all or any of the Tenderers who have submitted a Tender, or from any other person (whether or not they submitted a Tender);  
v. At any time prior to the lodgement date referred to in Section 4.6.1, invite any other person to participate as a Tenderer in the Procurement Process;  
vi. At any time, pre-qualify, seek a Submission from, short-list or enter into negotiations with any one or more persons;  
vii. At any time, vary the Procurement Process (including the evaluation process) by notice in writing to prospective Tenderers that are known to have obtained the Tender Invitation from BRC, the Tenderers, the short -listed Tenderers or the Tenderers (as applicable);  
viii. At any time, vary its requirements for the Procurement Process or the Project (including the contractual structure proposed for the carrying out of the Project) by notice in writing to prospective Tenderers that are known to have obtained the Tender Invitation from BRC, the Tenderers, the short-listed Tenderers or the Tenderers (as applicable).

Any notice given after short-listing of Tenderers will be given to short-listed Tenderers or Tenderers (as applicable) only, and not to all Tenderers.

5.5 NO LEGAL RELATIONSHIP

This Tender Invitation is not an offer. Except to the extent expressly set out in this Tender Invitation, no obligations arise from this Tender Invitation as between any prospective Tenderer, Tenderer Member or Tenderer and BRC or any of its officers, employees or advisors.  
No binding Contract whatsoever will be taken to have been entered into in respect of the Project until such time as an Agreement or Contract has been executed by the relevant parties.

5.6 OBLIGATIONS OF BRC

Except as expressly stated in any Agreement or Contract, BRC has no obligations or liabilities to any prospective Tenderer or Tenderer Member or Tenderer in respect of the Tender Invitation, the evaluation or Procurement Processes, and to the maximum extent permitted by law, any obligations and liabilities that may otherwise be implied or imposed on BRC under contract, in tort including negligence, in equity, at law, by statute or otherwise are excluded.

5.7 DISCLAIMER

Each Tenderer and Tenderer Member acknowledges, accepts and agrees that:

i. The information, statements and any representations in this Tender Invitation and in any other documents referred to in this Tender Invitation are not exhaustive, may contain errors or omissions and may be incomplete, inaccurate, misleading or inadequate for the needs of the Tenderer;  
ii. There may be other information or documents in the knowledge or possession of BRC, other government departments or agencies or their respective officers, employees, consultants, Contractors or agents, which are relevant to the Project, the process or the preparation or lodging of a Submission, which have not been provided to the Tenderer or to which reference has not been made;  
iii. It must make its own enquiries and make its own assessment of the information and documents provided and about any further information or documents required and must satisfy itself from its own investigations, evaluations, enquiries, assessments, interpretations and sources as to all matters and things relevant to the Tenderer’s Submission; and  
iv. Notwithstanding whatever information is provided to the Tenderer by, or withheld from the Tenderer by, or obtained by the Tenderer from, any federal, state or local government department or agency (including BRC) or their respective officers, employees, consultants, Contractors or agents or others, it must rely only upon its own investigations, evaluations, enquiries, interpretations and sources and its own assessments of the Project and as to all matters and things relevant to the Tenderer’s Submission.
5.8 TENDERER’S LEGAL OBLIGATIONS

Each Tenderer must, in preparing and lodging any Submission or Tender, comply with all applicable laws, legal requirements and acceptable probity standards. Without limiting the application of this clause, the Tenderer and each Tenderer Member must not:

i. Collude with, accept any commission from, or offer any commission to any other prospective Tenderer, other Tenderer or Member of another Tenderer;

ii. Disclose any part of its Submission or Tender (or any draft thereof) to any other prospective Tenderer or Member of another Tenderer or Tenderer;

iii. Enter any contract, arrangement or understanding with any other prospective Tenderer, Tenderer or Member of another Tenderer or any trade, industry or other association with the effect that if the Tenderer is short-listed or becomes a Tenderer or enters into a Contract, a benefit will be conferred on any other party;

iv. Enter any improper or anti-competitive contract, arrangement or understanding with any other person in connection with the Tender Invitation, the Procurement Process or the Project; or

v. Offer any incentives, gifts or other favours to any person who is in any way involved with, in a position to influence, or capable of providing technical or other advice to, those who are involved in any way with evaluation of Submissions or Tenders.

5.9 DECISION TO PROCEED

BRC will not necessarily, proceed to or conclude the Procurement Process or enter into a Contract or any other contract with any Tenderer or other person in connection with the Project.

BRC may discontinue the Procurement Process or any subsequent process at any time.

5.10 ACKNOWLEDGEMENT AND WARRANTY BY TENDERER

By submitting a Tender (whether or not it complies in all respects with this Tender Invitation), the Tenderer and each Tenderer Member:

i. Accepts and agrees with the terms of this Tender Invitation;

ii. Warrants to BRC that the information contained in the Submission is accurate and complete as at the date on which it is submitted, and may be relied upon by BRC in determining whether or not to enter an Agreement or Contract with the Tenderer; and

iii. Undertakes to promptly advise BRC of any changes in circumstances that may cause the information contained in its Submission to become inaccurate or incomplete in a material respect.

5.11 ADDITIONAL INFORMATION AND CLARIFICATION

Notwithstanding any other requirements of this Tender Invitation, and without limiting Section 4.6, BRC may at any time after lodgement of the Submission:

i. Request a Tenderer to submit additional information or clarifications (and the Tenderer in question must promptly respond, in writing, to any such requests);

ii. Request a Tenderer to attend one or more meetings to discuss the Tenderer’s Submission or to discuss issues associated with the Procurement Process or any other aspect of the Project (and the Tenderer in question must attend any such meetings as requested); and/or

iii. Otherwise communicate with a Tenderer to discuss the Tenderer’s Submission or to discuss issues associated with the Procurement Process or any other aspect of the Project (and the Tenderer in question must participate in any such communications as requested).

Where a Tenderer does not comply with the requirements of paragraph i, ii or iii within the timeframe nominated by BRC, BRC may continue the evaluation process on the basis of the available information.
5.12 OWNERSHIP OF SUBMISSIONS
Subject to this Section 5.12, all Submissions will become the property of BRC on submission and will not be returned to Tenderers.

Any intellectual property right (including copyright) that may exist in the Submission will remain the property of the Tenderer. Any element of the Submission considered to carry any intellectual property rights should be clearly identified by the Tenderer. Where BRC, in its absolute discretion, determines that such elements are subject to such a right, BRC will treat that element as protected.

By submitting a Tender (whether or not it complies with this Tender Invitation), the Tenderer will be taken to have licensed BRC and each of its officers, employees, agents and advisors:

i. To use, copy, adapt, modify, disclose or do anything else necessary to, at BRC’s absolute discretion, all material (including material that contains any intellectual property rights of the Tenderer or any Tenderer Member or other person) contained in an Submission, for the purpose of evaluating and clarifying that submission; and

ii. To share with any Tenderer or Contractor, any ideas contained in a Submission or otherwise generated by the Tenderer that may be used to benefit the Project, except where a Claim of an intellectual property right in respect of that idea has been notified by the Tenderer under the previous paragraph of this section and accepted by BRC.

5.13 NOTICE TO TENDERERS

BRC may, in its absolute discretion, issue addenda to this Tender Invitation (including to modify or clarify the Tender Invitation in any way or to respond to a prospective Tenderer’s query) as a Notice to Tenderers. Prospective Tenderers must acknowledge receipt of such addenda by way of notice and such addenda will become part of this Tender Invitation.

5.14 PRIVACY ACT COMPLIANCE

In relation to any personal information (as defined in the Privacy Act 1988 (Cth) –“the Privacy Act”) provided by a Tenderer in connection with the Tenderer’s Submission, the Tenderer warrants to BRC that:

i. the Tenderer has obtained the consent of each individual about which any sensitive information (as defined in the Privacy Act) is provided; and

ii. the Tenderer has ensured or will ensure, within the time required by the Privacy Act, that each individual about whom any personal information (as defined in the Privacy Act) is provided has received a written statement setting out all of the matters required by Australian Privacy Principle 1.4:

   a. In relation to disclosure of personal information to BRC or any of its officers, employees, agents or advisors requiring the information for the purposes set out in subparagraph ii); and

   b. Disclosing that persons referred to in subparagraph i) will use the personal information for the purposes of reviewing and assessing the Tenderer’s Submission.

The Tenderer will comply with the provisions of the Privacy Act in relation to any personal information provided to them by BRC or by any of its officers, employees, agents or advisors.

5.15 DUE DILIGENCE CHECKS

The Tenderer consents to BRC undertaking due diligence checks. Such due diligence checks may include, in respect of the Tenderer:

i. Investigations into commercial structure, business and credit history;

ii. Prior contract compliance and performance;

iii. Any criminal records or pending charges;

iv. Interviews with any referees nominated or with other sources;

v. Site visits to previous projects; and

vi. Research into any relevant activity that is or might reasonably be expected to be the subject of regulatory investigation.
### 5.16 GLOSSARY OF TERMS

This glossary of terms applies specifically to the Tender Invitation. In this Tender Invitation, unless the context otherwise requires, the following terms have the defined meaning ascribed to them:

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Approvals</strong></td>
<td>All authorisations, leases, licences, permits, approvals, registrations, filings, lodgements, notifications, agreements, certificates, commissions and consents of and from any authority or required under an applicable Law to permit the Project to be lawfully carried out</td>
</tr>
<tr>
<td><strong>BRC</strong></td>
<td>Bundaberg Regional Council</td>
</tr>
<tr>
<td><strong>Claim</strong></td>
<td>Claim includes any claim, action, demand or proceeding (including by way of contribution or indemnity):</td>
</tr>
<tr>
<td></td>
<td>a) under, arising out of, or in any way in connection with this document, any other agreement between the parties in relation to the Procurement Process;</td>
</tr>
<tr>
<td></td>
<td>b) arising out of, or in any way in connection with, any task, fact, matter, thing or relationship connected with the Project (including under an express or implied process agreement between them); or</td>
</tr>
<tr>
<td></td>
<td>c) otherwise at law or in equity including:</td>
</tr>
<tr>
<td></td>
<td>i. by statute;</td>
</tr>
<tr>
<td></td>
<td>ii. in tort for negligence or otherwise, including negligent misrepresentation; or</td>
</tr>
<tr>
<td></td>
<td>iii. for restitution, including restitution based on unjust enrichment</td>
</tr>
<tr>
<td><strong>Contract</strong></td>
<td>The Contract to be entered into between BRC and the successful Tenderer to design and construct the Project</td>
</tr>
<tr>
<td><strong>Contractor</strong></td>
<td>The Tenderer selected at the end of the procurement process to design and construct the Project</td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td>Curriculum vitae</td>
</tr>
<tr>
<td><strong>D&amp;C</strong></td>
<td>Design and construct</td>
</tr>
<tr>
<td><strong>Design and Construct Price</strong></td>
<td>Means the lump sum amount included in the Tender for completion of design, construction and commissioning of the Project exclusive of GST and in Australian Dollars.</td>
</tr>
<tr>
<td><strong>DEHP</strong></td>
<td>Department of Environment and Heritage Protection</td>
</tr>
<tr>
<td><strong>EMP</strong></td>
<td>Environment management plan</td>
</tr>
<tr>
<td><strong>EP</strong></td>
<td>Equivalent persons</td>
</tr>
<tr>
<td><strong>Evaluation Panel</strong></td>
<td>The panel established by BRC to select the Tenderers and the Contractor as defined in Section 3.5</td>
</tr>
<tr>
<td><strong>HGL</strong></td>
<td>Hydraulic grade line</td>
</tr>
<tr>
<td><strong>Law</strong></td>
<td>Any statute, act, rule, order, regulation or common law of the Commonwealth of Australia, State of Queensland or a local government</td>
</tr>
<tr>
<td><strong>Principal’s Project Requirements</strong></td>
<td>The document prepared to define BRC’s requirements for the Project as outlined in Section 3.8</td>
</tr>
<tr>
<td>(or PPR)</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>Meaning</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Procurement</td>
<td>The entire procurement process for the Project as described in Section 3</td>
</tr>
<tr>
<td>Process</td>
<td></td>
</tr>
<tr>
<td>Project</td>
<td>Works as outlined in Section 1.2.1</td>
</tr>
<tr>
<td>Project</td>
<td></td>
</tr>
<tr>
<td>Objectives</td>
<td>The project objectives listed in Section 2.1</td>
</tr>
<tr>
<td>Stakeholder</td>
<td>The entities listed as Stakeholders in Section 2.3</td>
</tr>
<tr>
<td>Works</td>
<td>All or part of the works and services required under the Contract</td>
</tr>
</tbody>
</table>
CONTRACT NO. TEN/0167
TENDER INVITATION
DESIGN AND CONSTRUCT

WOODGATE VACUUM SEWER EXTENSION

PRINCIPAL’S PROJECT REQUIREMENTS (PPR)

DECEMBER 2016
Contents

1. **Background** ......................................................................................................................... 4
   1.1 Context of this document ........................................................................................................ 4
   1.2 Purpose of the Project ............................................................................................................. 4

2. **Definitions and interpretation** .......................................................................................... 4
   2.1 Interpretation ......................................................................................................................... 4
   2.2 Definitions ............................................................................................................................. 4
   2.3 Glossary ................................................................................................................................ 5

3. **Project Scope** ..................................................................................................................... 7

4. **Site arrangement and Early Works** .................................................................................... 7
   4.1 General ................................................................................................................................... 7
   4.2 Site set down and storage areas ............................................................................................. 8
   4.3 Access to Site ........................................................................................................................ 8

5. **Contractor’s key personnel** ............................................................................................... 8
   5.1 Project manager ..................................................................................................................... 8
   5.2 Design manager ..................................................................................................................... 8
   5.3 Lead civil and hydraulic engineer ......................................................................................... 9
   5.4 Construction manager/Supervisor ....................................................................................... 9
   5.5 Quality control engineer ....................................................................................................... 9
   5.6 Health safety and environmental officer ............................................................................. 9

6. **Program and Project Plans** ................................................................................................ 9
   6.1 Program ................................................................................................................................. 9
   6.2 Overview of Project Plans ..................................................................................................... 10
   6.3 Quality Plan ........................................................................................................................ 10
   6.4 Design Management Plan ................................................................................................... 11
   6.5 Community Liaison Plan ..................................................................................................... 11
   6.6 Construction Environment Management Plan ................................................................... 12
   6.7 Construction Health and Safety Management Plan ........................................................... 13
   6.8 Construction Management Plan ........................................................................................ 14
   6.9 Traffic Management Plan .................................................................................................... 14
   6.10 Commissioning Procedures Document ............................................................................. 15
   6.11 O&M Manual ..................................................................................................................... 15

7. **Quality assurance system** ................................................................................................ 16
   7.1 General .................................................................................................................................. 16
   7.2 Identification and traceability ............................................................................................... 16
   7.3 Weekly conformance reports ............................................................................................... 17
   7.4 Weekly non-conformance reports ......................................................................................... 17
   7.5 Compliance inspection and testing ..................................................................................... 17
   7.6 Quality records ..................................................................................................................... 18
   7.7 Inspection and test plans ....................................................................................................... 18

8. **Approvals** .......................................................................................................................... 19

9. **Existing Utility Services** .................................................................................................... 19
   9.1 Locating and recording of data ............................................................................................ 19
   9.2 Dial before you dig ............................................................................................................... 19
   9.3 Protection and maintenance of Utility Services ................................................................. 19
   9.4 Repair of Utility Services .................................................................................................... 19

10. **Site facilities and temporary services** ............................................................................ 20
    10.1 Contractor’s office and ablutions ....................................................................................... 20
    10.2 Temporary power supply ................................................................................................. 20
10.3 Facilities for the Superintendent ................................................................. 20

11. Community liaison ....................................................................................... 20
   11.1 Enquiries and complaints .................................................................... 20
   11.2 Response to complaints .................................................................... 21

12. Photographic records .................................................................................. 21
   12.1 General ............................................................................................. 21
   12.2 Initial photographic record ................................................................ 21
   12.3 Final photographic record .................................................................. 21
   12.4 Format ............................................................................................... 22

13. Design and design review .......................................................................... 22
   13.1 Design report submission and review .................................................. 22
   13.2 Design Reports .................................................................................. 22
   13.3 Final design report submission ............................................................ 23

14. Drawings ...................................................................................................... 23
   14.1 General requirements ......................................................................... 23
   14.2 Submission of drawings ..................................................................... 24
   14.3 PTU drawing submissions .................................................................. 24
   14.4 IFC drawings .................................................................................... 24
   14.5 Civil and structural drawings and documents ...................................... 24
   14.6 Mechanical drawings and documents .................................................. 25
   14.7 Electrical, instrumentation and control drawings and documents ...... 25
   14.8 HAZOP ............................................................................................ 25

15. Safety in design ............................................................................................. 26
   15.1 General requirements ......................................................................... 26

16. Design requirements for operation and maintenance ....................................... 27
   16.1 General requirements ......................................................................... 27

17. Design Life and Residual Design Life ................................................................. 27
   17.1 Design Life ........................................................................................ 27

18. Design certification ....................................................................................... 28

19. As Constructed documentation ..................................................................... 28

20. Technical Specifications, Standards and procurement ..................................... 29
   20.1 Technical Specification ....................................................................... 29
   20.2 Australian Standards .......................................................................... 29
   20.3 Order of precedence .......................................................................... 29

21. Specific Requirements .................................................................................. 30
   21.1 Site information .................................................................................. 30
   21.2 Protection of Cultural Heritage ............................................................. 30
   21.3 Disposal of surplus material ................................................................. 30
   21.4 Assessment for Site contamination ...................................................... 30
   21.5 Acid sulfate soils ................................................................................ 30
   21.6 Structure work .................................................................................... 30
   21.7 Fencing ............................................................................................... 30
   21.8 Grassing of disturbed areas .................................................................. 30
   21.9 Connection to existing vacuum pipeline and pressure main ............... 31
   21.10 Testing of pipelines and water retaining structures ......................... 31

The Contractor must provide to the Superintendent a proposal detailing how it proposes to hydrostatically test all sections of the pipeline ........................................... 31
Principal's Project Requirements (PPR)

1. Background

1.1 Context of this document

(a) This Principal's Project Requirements (PPR) document specifies the requirements for the design, construction, testing, and hand over of the extension to the existing Woodgate Vacuum Sewerage System.

1.2 Purpose of the Project

The purpose of the Project is to:

(a) Provide infrastructure to collect and transport sewage from proposed development areas to the north of the existing Woodgate Township using a proprietary vacuum system compatible with the existing vacuum sewerage system.

2. Definitions and interpretation

2.1 Interpretation

Unless otherwise indicated, all references to clause numbers contained in this document are references to clauses within this PPR. Capitalized terms that are not defined in the PPR have the meanings given to them in the other Contract documents.

2.2 Definitions

In the PPR:

Asset means all components of the Works including all Asset Items and Asset Sub Items

Asset Items are single items of any Asset Type, such as, but not limited to, a pump, etc.

Asset Types are the distinct classes of Asset, such as, but not limited to, pumps, tanks, pipes, roads, etc.

Community Liaison Plan means the document prepared in accordance with Clause 6.5.

Construction Environment Management Plan means the document prepared in accordance with Clause 6.6.

Construction Health and Safety Management Plan means the document prepared in accordance with Clause 6.7.

Construction Management Plan means the document prepared in accordance with Clause 6.8.

Design Management Plan means the functional plan setting for the design of the D&C Activities to be prepared in accordance with Clause 6.4.

Existing Sewerage System means the existing vacuum collection system, pump station and pressure main to the Woodgate wastewater treatment plant (WWWTP).

Quality Plan means the document prepared in accordance with Clause 6.3.

Technical Specifications means the technical specifications appended to the PPR.

Wastewater means the liquid raw sewage stream transferred from the sewerage network to the WWTP.

2.3 Glossary

Acronyms used in the PPR have the following meanings, unless the context indicates a contrary intention:

- ADF: Average Daily Flow
- ADWF: Average Dry Weather Flow
- AHD: Australian Height Datum
- ARI: Average return interval
- AS: Australian Standard
- BOM: Bureau of Meteorology
- BRC: Bundaberg Regional Council
- BWL: Bottom Water Level
- CAD: Computer Aided Drafting
- CEMP: Construction Environment Management Plan
- Ch: Chainage
- CHSMP: Construction Health and Safety Management Plan
- CSV: Comma Separated Variable
- CV: Curriculum Vitae
- D: Depth
- D&C: Design and Construct
- DEHP: Queensland State Department of Environment and Heritage Protection
- DICL: Ductile Iron Cement Lined
- DN: Nominal Diameter
- DNRM: Department of Natural Resources and Mines
- DWG: AutoCAD drawing file
- DXF: Drawing exchange format
- FSL: Finished Surface Level
- GCoC: General Conditions of Contract (AS4300-1995)
- GRP: Glass Reinforced Plastic
- HDG: Hot Dipped Galvanized
- HGL: Hydraulic Grade Line
- HSE: Health Safety and Environment
- HSQE: Health Safety Quality and Environment
IFC  Issued for Construction
ISO  International Standards Organization
ITP  Inspection and Test Plan(s)
KPI  Key Performance Indicator
LWL  Low Water Level
NATA  National Association of Testing Authorities
NB  Nominal Bore
ND  Nominal diameter
PE  Polyethylene
PPE  Personal Protection Equipment
PTU  Permission to Use
PVC  Poly Vinyl Chloride
PWWF  Peak Wet Weather Flow
QAR  Quality Assurance Representative
RCP  Reinforced Concrete Pipe
RL  Reduced level
RP  Real Property
RPEQ  Registered Professional Engineer Queensland
WWWTP  Woodgate Wastewater Treatment Plant
SWL  Safe Working Load
TWL  Top Water Level
UPVC  Unplasticised Poly Vinyl Chloride
WHS  Workplace Health and Safety
WSAA  Water Services Association of Australia
WSA  Water Services Association (specification prefix)
WS-SPEC  Water Services Specification
PFD
3. **Project Scope**

The scope of work is to design and construct Stage 1 of the recommended vacuum system upgrade as outlined following:

(a) Design and construction of a new vacuum pumping station, VPS 2, sized for ultimate flow. Work to include all earthworks, concrete and building works service connections (i.e. power supply, water supply, SCADA connections), access road, landscaping and provision of security fencing and access gates;

(b) Design and construction of a two stage odour facility at VPS2;

(c) Design, supply and installation of all mechanical, electrical, instrumentation and control equipment required for the operation of the new works;

(d) Design and installation of a standby generator.

(e) Design and construction of a new DN150 rising main from VPS 2 to the connection point at the corner of Frizzels and Woodgate Roads;

(f) Design and construction of DN150 water main from VPS2 to Eagle Road;

(g) Design and construct a new DN160 PE/125 PE spine vacuum sewer from VPS 2 to Jaburi Court

(h) Connect new spine vacuum sewer to existing vacuum system at five locations;

(i) Disconnect and seal existing vacuum system at seven locations;

(j) Carrying out all negotiations with relevant utilities required for carrying out the construction works;

(k) Arranging for the connection of any services required for the work including power, water supply and telephone including all connection fees and other associated charges;

(l) Restoring all disturbed areas to previous condition on completion of the works including fencing, landscaping, paths, driveways, roads, drains and structures;

(m) Commissioning, testing and attending to any defects during the defects liability period;

(n) Obtaining all approvals for the work;

(o) Provision of site security fencing;

(p) Earthworks including bulk excavation, detailed excavation, filling, foundations, earth retaining, dewatering where necessary, backfilling and surface restoration;

4. **Site arrangement and Early Works**

4.1 **General**

(a) The Contractor must confine all Project Activities to the Site and must not enter any other adjoining property unless the Contractor has procured Extra Land for itself and at its own cost the occupation or use of or relevant rights over any land or buildings in addition to the Site, which is necessary or which it requires for the execution of the Project Activities.
(b) The Site is defined as the proposed Lot 501 and the full extent of Frizzels Road from Lot 501 up the intersection with Woodgate Road.

(c) The Concept Site layout Plan as per Volume 2 Annexure A – GHD Planning Report.

4.2 Site set down and storage areas

Site establishment for the Project Activities including site office, ablutions areas, work areas, lay down areas, set down areas and storage areas must be contained within the Site ensuring that there is no disruption to existing use on or adjacent to the Site unless otherwise approved by the Superintendent.

4.3 Access to Site

(a) All construction traffic to the Site must comply with the external road network access requirements in accordance with the approved Traffic Management Plan (refer to Clause 6.9).

(b) The Contractor must maintain access to all public roads, including carparks and accesses to residential and commercial premises in a safe and serviceable condition throughout the duration of the D&C Activities.

(c) Upon completion of D&C Activities, the Contractor must reinstate Frizzels Road, including footpaths and accesses to residential and commercial premises to a standard at least equivalent to their condition at the Commencement Date.

5. Contractor’s key personnel

The Contractor must nominate and maintain personnel for the key positions listed below. Any vacancy of a key position must be filled promptly by the contractor with an individual approved by the Superintendent.

5.1 Project manager

(a) Responsible for overall management of the Project. The project manager must have a minimum of 10 years’ experience and be able to demonstrate a successful track record as a project manager in the design and construction of multi discipline projects involving civil, pipework and commissioning activities.

(b) The project manager must have carried out a similar role on at least one vacuum sewer project of a similar value. This experience must have been gained working for a contractor.

5.2 Design manager

(a) Responsible for the overall design management of the Project as a direct report to the project manager.

(b) The design manager must be a RPEQ engineer with a minimum of 10 years’ experience and be able to demonstrate a successful track record as a design manager in the design of multi discipline projects involving civil, structural, pipework and commissioning activities within the wastewater industry. This experience must specifically include vacuum sewer systems of a similar value.
5.3 Lead civil and hydraulic engineer

(a) Responsible for the overall civil and hydraulic design as a direct report to the design manager.

(b) The lead civil and hydraulic engineer must be a qualified engineer with a minimum of 10 years’ experience and must be able to demonstrate a successful track record as a civil and hydraulic design engineer in the design of vacuum sewer systems of a similar value.

5.4 Construction manager/Superintendent

(a) Responsible for the overall construction management of the Project. The construction manager must have a minimum of 10 years' site supervision experience as a construction manager or superintendent including, as a minimum, one vacuum sewer project of a similar value. The construction manager must be able to demonstrate experience in controlling site staff, direct labour and the administration of subcontractors. The construction manager must also be able to demonstrate an understanding of quality control requirements.

(b) The role must be dedicated to the Project on a fulltime basis on-site from site establishment through to the end of the D&C Period.

5.5 Quality control engineer

(a) Responsible for the overall construction quality control and be a direct report to the construction manager. The quality control engineer must have a minimum of 5 years’ post graduate experience. The quality control engineer must be able to demonstrate experience in managing quality assurance systems, coordinating subcontractors and suppliers and providing an effective interface between the site and the design team in resolving design and/or technical issues.

(b) The role must be dedicated to the Project on a fulltime basis on-site from site establishment through to the end of the D&C Period.

5.6 Health safety and environmental officer

The health safety and environmental officer must be able to demonstrate a minimum of 5 years’ experience in HSE with recognised qualifications in the field of HSE. Specific experience in the preparation of safe work method statements, risk management procedures and incident investigation is required. The health safety and environmental officer must have a working knowledge of the relevant and current Queensland WHS Legislation.

6. Program and Project Plans

6.1 Program

(a) In accordance with Clause 33.2 of the GCoC, within 14 days of the Commencement Date, the Contractor must prepare and lodge with the Superintendent for approval a program that shows the Contractor’s bona fide planned work activities and sequences for achieving Practical Completion.

(b) The program must be in the form of a Gantt chart, or precedence or activity orientated network, or similar, with sufficient activities to describe the individual work activity tasks with, as a minimum, evidence of the following:

(i) Critical path analysis;
(ii) Significant milestones up to Practical Completion; and

(iii) All planned working and non-working days.

(c) In addition to the requirements of Clause 33.2 of the GCoC, the Contractor must at
    regular intervals (not greater than monthly) up to the Date of Practical Completion, or
    within 7 days of being requested by the Superintendent, submit an amended/ updated
    program in the format of the initial program.

6.2 Overview of Project Plans

(a) The Contractor must prepare and submit the following Project Plans to the
    Superintendent in accordance with the requirements of Clause 8.4 of GCoC:

<table>
<thead>
<tr>
<th>Description</th>
<th>Clause</th>
<th>Time for submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Plan</td>
<td>6.3</td>
<td>Not later than 28 days after the Commencement Date.</td>
</tr>
<tr>
<td>Design Management Plan</td>
<td>6.4</td>
<td>Not later than 14 days after the Commencement Date.</td>
</tr>
<tr>
<td>Community Liaison Plan</td>
<td>6.5</td>
<td>Not later than 28 days after the Commencement Date.</td>
</tr>
<tr>
<td>Construction Environment Management Plan</td>
<td>6.6</td>
<td>Not later than 28 days after the Commencement Date.</td>
</tr>
<tr>
<td>Construction Health and Safety Management Plan</td>
<td>6.7</td>
<td>Not later than 28 days after the Commencement Date.</td>
</tr>
<tr>
<td>Construction Management Plan</td>
<td>6.8</td>
<td>Not later than 28 days after the Commencement Date.</td>
</tr>
<tr>
<td>Traffic Management Plan</td>
<td>6.9</td>
<td>Not later than 28 days after the Commencement Date.</td>
</tr>
<tr>
<td>Commissioning Procedures Document</td>
<td>6.10</td>
<td>Not later than 28 days after the Commencement Date.</td>
</tr>
<tr>
<td>O&amp;M Manual</td>
<td>6.11</td>
<td>Final version no less than 30 days prior to the Date for Practical Completion.</td>
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</tbody>
</table>

6.3 Quality Plan

(a) The Contractor must prepare and submit a Quality Plan for the Project to address how
    the Contractor will comply with the requirements specified in Clause 7.

(b) The Quality Plan must cover all relevant quality assurance system elements applicable to
    this Project.

(c) As a minimum, the Quality Plan must contain the following information:
(i) A Project organisation chart and list of key personnel showing their positions, lines of accountability and responsibilities;

(ii) Names and details of the qualifications and experience of personnel appointed to the roles nominated in Clause 5.

(iii) Names and details of the qualifications and experience of personnel appointed to the following roles:

A. Project engineers; and
B. Foremen and supervisors.

(iv) A register of all quality records to be used on the Project, together with a copy of relevant templates and proformas; and

(v) The method of isolating/identifying nonconforming work, applying and releasing hold points, and the like must be clearly stated in the Quality Plan.

6.4 Design Management Plan

(a) The Contractor must prepare and submit a Design Management Plan to the Superintendent.

(b) Locations where the design will be undertaken and a statement where each of the leads will be based must be provided.

(c) The Design Management Plan must include as a minimum:

(i) A listing of proposed design elements;

(ii) A design risk management plan;

(iii) A schedule of design personnel and reviewers, including any sub-consultants;

(iv) A list of design tools such as hydraulic software proposed to be used; and

(v) A separate design program setting out the design sequence and scheduled completion dates, dates for submission of various reports.

6.5 Community Liaison Plan

(a) The Contractor must develop and submit a Community Liaison Plan to the Superintendent.

(b) The Community Liaison Plan must be formatted under at least the following headings:

(i) Overview;

(ii) Objectives;

(iii) Target audiences;

(iv) Potential issues and opportunities;

(v) Strategy;

(vi) Tactics;
(vii) Evaluation;
(viii) Timeframes.

(c) The Community Liaison Plan must include procedures and timetables to:

(i) Address how the Contractor will undertake community and stakeholder liaison activities specified in Clause 11;

(ii) Make contact with emergency services, local businesses, schools, hospitals, public transport operators, community groups and residents adjacent to the Site and/or affected by the Project Activities to establish an effective communication network to be maintained during construction;

(iii) Anticipate the impacts of construction on the above groups and the broader community, and be proactive in keeping all parties informed via direct contact, through newsletters, leaflets, advertisements in newspapers, radio and other appropriate means, particularly in regard to changed traffic arrangements, duration of construction and local access issues;

(iv) Maintain a complaints register in accordance with Clause 11.1 and respond to all registered complaints within 48 hours;

(v) Develop procedures for the management of emergency situations and ensure that staff are trained in the appropriate response necessary to deal with such emergency situations.

(d) The Community Liaison Plan must be prepared on the basis that:

(i) All newsletters, leaflets and other public statements must be submitted for the approval of the Superintendent prior to publication; and

(ii) The Contractor must not have any direct contact or liaison with members of the media and must immediately direct any media enquiries to the Superintendent.

6.6 Construction Environment Management Plan

(a) The Contractor must prepare and submit a Construction Environment Management Plan (CEMP) to the Superintendent.

(b) The CEMP must address management of specific environmental issues relating to design, construction and operation of each part of the Site and include as a minimum:

(i) Project environmental policy;

(ii) Statutory approvals;

(iii) Cultural heritage management strategies (refer to Clause 6.6(d));

(iv) Environmental complaints, training and audits;

(v) Emergency/contingency action plans;

(vi) Clean-up of spills and site remediation;

(vii) Waste disposal (solid/liquid);
(viii) Landscaping/ remediation works;
(ix) Flora and fauna;
(x) Water quality, erosion and sedimentation control;
(xi) Bulk storage of chemicals/ fuels/ bunding;
(xii) Planning and management of any acid sulfate soils/ potential acid sulfate soils;
(xiii) Ground vibration (refer to Clause 6.6(c));
(xiv) Noise (refer to Clause 6.6(c));
(xv) Air quality and dust suppression;
(xvi) Machinery access and fuelling;
(xvii) Dredge Spoil Management; and
(xviii) Maintenance activities outside normal Working Hours.

(c) The Contractor must make all reasonable endeavours to limit noise emissions generated by the D&C Activities to comply with the requirements of the Environmental Protection (Noise) Policy 2008 and this PPR in relation to allowable noise limits for the area.

(i) The Contractor must take measures to reduce noise from construction activities in accordance with AS 2436.

(ii) Subject to Working Hours and Working Days as specified in Clause 32 of the GCoC, allowable noise limits for the area may be exceeded provided the D&C Activities are carried out in accordance with AS 2436.

(iii) The Contractor must ensure that noise is attenuated at its source.

(iv) The Contractor must minimise equipment vibration in accordance with AS 2625.

(d) The CEMP must address management of Aboriginal and European cultural heritage issues that may arise during the performance of the Project Activities (refer to the duty of care guidelines issued by the Queensland Government www.datsima.qld.gov.au).

6.7 Construction Health and Safety Management Plan

(a) The Contractor must prepare and submit a Construction Health and Safety Management Plan (CHSMP) demonstrating compliance with the Work Health and Safety Act 2011 to the Superintendent.

(b) In addition to other risks identified by the Contractor, the Contractor’s CHSMP must address, as a minimum, the following Project-specific WHS hazards:

(i) Working in proximity and in connection to an operating sewerage system;

(ii) Electrical equipment including buried and exposed cables and installations;

(iii) Danger of falling from heights;

(iv) Danger of drowning in open, flowing channels, tanks and lagoons;
(v) Entry to enclosed (confined) spaces;
(vi) Moving plant and equipment;
(vii) Working on or adjacent to roadways;
(viii) Working in trench;
(ix) Venomous snakes;
(x) Venomous spiders;
(xi) Corrosive and combustible gases;
(xii) Odiferous, toxic gases and aerosols;
(xiii) High noise areas; and
(xiv) Working in an area where there are artificial extremes of temperature.

6.8 Construction Management Plan

(a) The Contractor must submit Construction Management Plans to the Superintendent.
(b) The Construction Management Plan must include the following as a minimum:

(i) A construction risk management plan;
(ii) A copy of the Current Approved Program (refer to Clause 6.1 of this Document and Clause 33.2 of the GCoC);
(iii) Site establishment showing site offices and ablutions areas, temporary fencing, work areas and laydown areas;
(iv) Site access and security arrangements;
(v) Traffic management plan for external road access (refer to Clause 6.9);
(vi) Arrangements for off-site disposal of surplus material;
(vii) Provisions for site visitors including sign in/ sign out facilities and parking;
(viii) Induction plan for the Contractor’s personnel; and
(ix) Induction plans for visitors to the Site.

6.9 Traffic Management Plan

(a) General

(i) The Contractor must develop and submit a Traffic Management Plan to the Superintendent.

(ii) The Traffic Management Plan must address how the Contractor will manage traffic during construction and must address as a minimum the requirements of this Clause 6.9.
(iii) The Contractor must implement, monitor and update its Traffic Management Plan during the Contract and must, within 7 days of any amendment, submit a copy of the revised Traffic Management Plan to the Principal’s Representative.


(b) Notification of traffic changes

(i) The Contractor must give the Superintendent a minimum of 14 days written notice of changes in traffic movements necessary for the performance of the D&C Activities.

(ii) All road closures must be subject to approval by the relevant Authority which must be given a minimum of 14 days’ notice, or such other period as the Authority may require, of traffic changes which affect it.

(c) Public notification

(i) During construction, adequate information must be advertised publicly by the Contractor to keep the community informed of changes to normal traffic movements and of any possible disruptions. As much notice as possible of changes or disruptions must be given, but it must not be less than 48 hours in advance of the possible disruption. The Contractor must obtain approval from the Superintendent as to the extent and nature of all such publicity prior to implementation.

(ii) The Principal reserves the right to take control of, and/or incorporate publicity proposals by the Contractor into any project publicity arranged directly by the Principal.

(d) Contractor’s obligations

Nothing contained in this Clause 6.9 in any way limits or excludes any of the Contractors’ obligations or liabilities under the Manual of Uniform Traffic Control Devices or the Contract.

6.10 Commissioning Procedures Document

The Contractor must prepare a Commissioning Procedures Document for the Works.

(a) The Contractor must prepare a Commissioning Procedures Document.

As a minimum, the Commissioning Procedures Document must include the following:

(i) A clear and detailed program including an Inspection and testing program;

(ii) Familiarisation training for the Principal’s operational staff.

6.11 O&M Manual

The Contractor must prepare and submit an O&M Manual for the Works. The O&M Manual must include, as a minimum, but is not limited to:

(a) A risk management plan;

(b) An asset management plan incorporating, as a minimum:
(i) A complete asset database;
(ii) Preventative maintenance schedule;
(iii) A generic approach to reactive maintenance and repairs;
(iv) An asset replacement schedule including a schedule of major maintenance and planned asset replacements.

7. Quality assurance system

7.1 General

(a) The Contractor must control the quality of Project Activities and must have a fully implemented quality assurance system in accordance with the requirements of the AS/NZS ISO 9001:2000.

(b) The Contractor must carry out all testing and verification of the Project Activities. The Superintendent reserves the right to conduct planned or unplanned audits on the Contractor’s quality assurance system.

(c) The Contractor must nominate a suitably qualified quality assurance representative (QAR) who is at a management level with appropriate authority to effectively control the complete quality assurance process.

(d) Inspection and test plans for the various phases during design, construction and commissioning must be provided to the Superintendent at least seven (7) days prior to commencement of relevant activities.

(e) A copy of the NATA certificate of registration for the Contractor’s compliance testing laboratory must be provided for Project Activities requiring NATA registered testing.

(f) Project specific operating procedures or descriptions outlining as a minimum, details of activities, who is responsible for implementation/verification, identification of relevant quality records and distribution of such records, must be submitted to the Superintendent at least seven (7) days prior to commencement of relevant activities.

7.2 Identification and traceability

(a) D&C Activities including design, manufacture, fabrication, construction, and commissioning, must be subdivided into distinct work lots or work items.

(b) Work lots or work items must be identified and documented by the Contractor in a schedule.

(c) Each work lot or work item must be assigned a unique identification number.

(d) The Contractor must maintain a register of all allocated work lot or work item numbers. This register must contain as a minimum, the following information:

(i) Brief description of the work lot or work item;
(ii) Location reference (3-dimensional where applicable);
(iii) Lot or item status (open or closed/ conforming or non-conforming).
(e) The Contractor must ensure that traceability is maintained throughout all documented records under this Contract. All test results must be positively identified with their respective work lot or work item number.

(f) The Contractor must keep and maintain a register of work lots for work items and forward to the Superintendent on a weekly basis or as otherwise requested.

7.3 Weekly conformance reports

(a) On a weekly basis by close of business Monday for the previous week’s work, the Contractor must forward a weekly conformance report to the Superintendent.

(b) Weekly conformance reports must include a statement certifying that the relevant work lots or work items have been inspected and/or tested in accordance with the Contractor’s inspection and test plan(s) and that they comply with the specified requirements.

(c) Weekly conformance reports must be accompanied by the following documents:

(i) All relevant signed off inspection and test plans and associated checklists;

(ii) NATA certified compliance test results (where applicable). In cases where test results are not available within this period (e.g. 28-day concrete strengths), the Contractor must submit preliminary results or previous analytical data of the same mix type which statistically indicates a high probability of conformance. Submission of such information does not absolve the Contractor from its responsibilities under this Contract should actual results subsequently identify non-conformance of the work lot or work item; and

(iii) Survey and measurement compliance data (where applicable).

7.4 Weekly non-conformance reports

(a) For non-conforming work, the Contractor must submit a weekly non-conformance report to the Superintendent by close of business Monday for the previous week’s work.

(b) The weekly non-conformance report must clearly detail but not necessarily be limited to the following items:

(i) The nature and extent of each non-conformance;

(ii) The work lot or work item number each relates to including the precise boundaries of the non-conforming work;

(iii) Any relevant information, data, test results and/or measurements (as applicable);

(iv) The corrective and preventative actions the Contractor proposes to take;

(v) The timeframe within which non-conformances will be rectified.

7.5 Compliance inspection and testing

(a) All compliance inspections and tests must be based on work lots or work items unless otherwise specified in the Contract or approved by the Superintendent.

(b) The Contractor must advise the Superintendent of the work lot or work item number and the location within the lot or item, prior to any testing of the lot or item.
(c) The frequency of compliance testing must be in accordance with the inspection and test plans (refer to Clause 7.1(d)).

(d) The Contractor must submit to the Superintendent any preliminary results on compliance tests carried out for each work lot or work item within twenty four (24) hours of completion of tests.

7.6 Quality records

(a) The Contractor's quality assurance system must include sufficient quality records to provide objective evidence that the requirements of the Contract are met. This must include quality records applicable to designers, subcontractors and suppliers.

(b) The Contractor must, when requested by the Superintendent, provide access to all quality records relevant to the Contractor's quality assurance system.

(c) Records must be maintained by the Contractor for a minimum period of two (2) years from completion of all Tests or in accordance with the Contractor's statutory requirements if the latter exceeds the minimum period required for this Contract.

(d) Records for equipment and parts subject to inspection and approval by the relevant regulatory authority must be made available on site at the time of arrival of all relevant items at site, or after inspections have been carried out on site (if applicable).

7.7 Inspection and test plans

(a) Inspection and test plans must contain at least the following information for each activity:

(i) Description of activity;

(ii) Requirements/ reference in Design Documents or the PPR;

(iii) Person responsible for activity (title);

(iv) Hold points and witness points including the name(s) and title(s) of personnel authorised to release these points;

(v) Activity checklists;

(vi) Inspection and test type;

(vii) Tolerances or other acceptance criteria;

(viii) Identification of relevant procedure and quality records;

(ix) Test/ inspection frequency;

(x) Work item or work lot identification.

(b) Inspection and test plans (for each activity) and examples of their relevant checklists must be submitted to the Superintendent for approval.

(c) The Superintendent may require the Contractor to insert additional hold points or witness points.
8. **Approvals**

The Contractor must adhere to all relevant conditions of approvals already obtained by the Principal and obtain all other relevant Approvals for the Project.

(a) Approvals obtained by the Principal are:

(i) A Cultural Heritage Application was submitted. The reply indicated that no Aboriginal cultural heritage is recorded in the area. The Contractor however has to adhere to the Aboriginal Cultural Heritage Act 2003.

(b) The Contractor must obtain all relevant Approvals for the Project that have not been obtained by the Principal. This includes, but is not limited to, operational works permits and a Building Permit.

9. **Existing Utility Services**

9.1 **Locating and recording of data**

(a) The Contractor must identify, maintain, protect and/or relocate all Utility Services when completing the Project Activities.

(b) The Contractor must locate existing Utility Services on the Site.

(c) The Contractor must utilise methods set out in AS5488 in the locating and recording of all such Utility Services.

(d) Any details of Utility Services shown on drawings supplied by the Principal or other third parties must not to be taken as indicating all existing Utility Services or their exact locations.

(e) Irrespective of any information on drawings supplied by the Principal or any other third party, the Contractor must verify and record the exact location of all Utility Services that exist on each part of the Site and which may be affected by the Project Activities.

9.2 **Dial before you dig**

The Contractor must obtain “Dial before you dig” information prior to any excavation and physically confirm the existence and depth of any Utility Service in the presence of the relevant Authority or owner where required by the relevant Authority or owner.

9.3 **Protection and maintenance of Utility Services**

(a) The Contractor must take all actions and provide all things necessary to protect and maintain existing Utility Services to the satisfaction of the relevant Authority or owner.

(b) This may include arranging or performing relocation, temporary diversion or support of the service, to the satisfaction and approval of the relevant Authority or owner.

9.4 **Repair of Utility Services**

(a) If a Utility Service is damaged during construction, the Contractor must arrange for, or perform, repair of the damaged Utility Service to the satisfaction of the relevant Authority or owner at the Contractor’s cost.
(b) The Contractor must obtain from the relevant Authority or owner, a certificate stating that the repair has been carried out to their satisfaction.

(c) If the damaged Utility Service is not under the control of an Authority, and the owner cannot be located within a reasonable time, the Contractor must report the damage to the Superintendent and arrange or perform the repair to a standard approved by the Superintendent. The Contractor must not be backfill, cover up or make inaccessible the repair prior to inspection by the Superintendent.

10. Site facilities and temporary services

10.1 Contractor's office and ablutions

The Contractor must provide its own office accommodation and ablution facilities at the Site.

10.2 Temporary power supply

The Contractor must make its own arrangements with Ergon Energy or otherwise for the provision of and use of power for construction purposes at the Site.

10.3 Facilities for the Superintendent

(a) The Contractor must provide access to ablution facilities on the Site for use by the Superintendent.

(b) Temporary office facilities are not required to be provided by the Contractor for the Superintendent at the Site.

11. Community liaison

11.1 Enquiries and complaints

(a) The Contractor must establish and maintain an enquiry phone number to respond to enquiries and complaints during the Contract.

(b) The Contractor must keep a record of all complaints on a complaints register.

(c) The complaints register must contain as a minimum:

(i) Date of the complaint;

(ii) Name and contact details of the complainant;

(iii) Nature and details of the complaint and immediate remedial action taken, if any;

(iv) Further corrective action proposed, if any;

(v) Any changes to procedures or training that may be required;

(d) The Contractor must respond to all enquiries and complaints in accordance with the requirements of Clause 11.2.

(e) All complaints must be promptly reported to the Superintendent.

(f) The Contractor must include details of each complaint in the next monthly progress report during the D&C Period.
11.2 Response to complaints

(a) In responding to a complaint, the Contractor must:

   (i) provide an initial response to the complainant within 4 hours of an enquiry or complaint;

   (ii) take remedial action to complaints as soon as reasonably practicable;

   (iii) promptly rectify the cause of any complaints arising from a breach or non-conformance with any of the requirements of the Contract;

   (iv) pay all costs associated with resolving complaints relating to damage caused by the performance of the D&C Activities.

12. Photographic records

12.1 General

The Contractor must keep a progressive colour photographic record of the Project Activities.

12.2 Initial photographic record

(a) Prior to commencement of the D&C Activities, the Contractor must prepare a detailed initial photographic record of all areas of the Site and surrounds that will potentially be affected by the D&C Activities including, but not limited to, river bank, existing adjoining infrastructure, stockpile areas, storage areas and road access.

(b) The initial photographic record must include detailed records of:

   (i) Existing structures, roads, pavements, reserves, kerb and gutter, fences, drains and pits and the like; and

   (ii) Any existing damage or faults relating to existing structures and infrastructure on the Site or in the vicinity of the Project Activities.

(c) The initial photographic record may be used in the resolution of any disputes between the Contractor and the Principal or any other property or asset owner in the event of a claim for damage caused by the Project Activities. Accordingly, the initial photographic record must be comprehensive in its coverage of areas potentially affected by construction activities.

(d) The Contractor must complete and submit the initial photographic record to the Superintendent in the format specified in Clause 12.4 no less than two (2) weeks prior to commencing work on-site.

12.3 Final photographic record

(a) The Contractor must prepare a final photographic record showing all completed Works on the Site.

(b) The final photographic record must be submitted to the Superintendent as a condition precedent to Practical Completion.
12.4 Format

(a) Photographic records must be presented electronically on CDs or other data storage media approved by the Superintendent.

(b) Each photograph must display the date the photograph was taken.

(c) Photographs must be grouped as electronic files representing each section of the Works. Each work area must be indexed such that particular properties and/or locations can be examined. Each work area must carry notation indicating any existing damage or faults, particularly where they are not obviously visible in the photographs.

13. Design and design review

13.1 Design report submission and review

In accordance with Clause 8.8(a) of the GCoC, the Contractor must submit a design report to the Superintendent for review and comment at the 80% design review stage.

13.2 Design Reports

Design reports submitted at the design review stage must include, to the extent applicable:

(a) 80% design report

The 80% design report must contain as a minimum:

(i) Description of design approach;

(ii) Design criteria, parameters and methods used;

(iii) Test procedures, analyses and results;

(iv) Detailed GAs & sections of major structures;

(v) Detailed earthworks drawings;

(vi) Detailed foundation drawings;

(vii) Detailed structural drawings;

(viii) Detailed mechanical drawings

(ix) Detailed electrical and control (PID) drawings;

(x) Detailed HGL;

(xi) Calculations and schedules;

(xii) References, specification requirements, codes, manuals and supporting documents used, drawing numbers and titles of drawings which are based on the design; and

(xiii) Any other relevant information.

(b) Constructability report

Separate constructability reports must contain as a minimum:
(i) Construction sequence:
   A. Overall construction sequence; and
   B. Critical path;

(ii) Construction method:
   A. Underground pipework;
   B. Structures and buildings;
   C. Mechanical work including pipework; and
   D. Electrical and control work.

13.3 Final design report submission

(a) The Contractor must submit a final design report to the Superintendent at completion of the design of the Works including all drawings marked “issued for construction”.

(b) The final design report must include the final version of contents applicable to the 80% design report as listed in Clause 13.2.

14. Drawings

14.1 General requirements

(a) The Contractor must prepare all drawings in accordance with the requirements of the relevant Australian Standards and codes and good engineering drawing practice.

(b) Drawings must be produced in A3 size.

(c) The Contractor must develop a logical set of drawing numbers in consultation with the Superintendent.

(d) All drawings must be clearly drawn to scale by competent draftspersons, in AutoCAD version 2012 or 12D Version 9, (or later versions approved by the Superintendent), in .dwg or .dxf format.

(e) Drawings must be sufficiently detailed to cover all aspects of the D&C Activities. Full details of all fittings, fixtures and finishes as well civil, structural and hydraulic must be included.

(f) The Superintendent will provide to the Contractor a copy of its standard drawing title block as a starting point. The Contractor must submit back to the Superintendent for approval an example of the format proposed for the layout of drawings. The Contractor must use the structure relating to the locality, Facility name and Asset name on each of the design drawings submitted.

(g) A drawings attribute spreadsheet must be populated and submitted by the Contractor when the final “As built” drawings are submitted. This information will allow the Superintendent to ‘bulk import’ the drawing information into the Superintendent's drawing register.
14.2 **Submission of drawings**

Drawings must be provided in electronic form and must:

(a) Be in a digitally certified PDF format;

(b) Include all CAD files for final and as built drawings (i.e. DWG, DXF, 12D, ASCII);

(c) Be submitted using the AutoCAD 'E-Transmit' tool.

14.3 **PTU drawing submissions**

(a) The Contractor must at the earliest practical date, but not less than fourteen (14) days prior to the construction of any relevant portion of the D&C Activities or commencement of manufacture of equipment, or placing firm orders for any components, submit to the Superintendent for review two (2) hard copies and one (1) digital copy of drawings and other Design Documents specified in Clause 8.8(c) of the GCoC.

(b) Drawings issued for permission to use must have been certified by the relevant RPEQ.

(c) Work must not proceed on the supply, manufacture, fabrication, erection or construction of equipment, components, or structure until the Contractor has obtained permission to use the relevant Design Documents in accordance with Clause 8.8 of the Contract Conditions.

(d) The Contractor must not mark drawings or other Design Documents “IFC” until permission to use has been obtained in accordance with Clause 8.8 of the Contract Conditions.

14.4 **IFC drawings**

In addition to the requirements of Clause 14.2, the Contractor must provide the following sets of IFC drawings for the use of the Superintendent during the course of the D&C Activities:

(a) Two (2) paper sets in A3 format.

14.5 **Civil and structural drawings and documents**

The Contractor must provide, as a minimum, the following civil and structural drawings and other documents as applicable:

(a) Earthworks drawings;

(b) Foundation drawings;

(c) Structural plans and elevation drawings;

(d) Reinforced concrete drawings;

(e) Structural steelwork and metalwork shop drawings;

(f) Pipework layout and detail drawings;

(g) Painting/coating schedules;

(h) Valve schedules;

(i) Piping schedules; and
14.6 **Mechanical drawings and documents**

The Contractor must provide, as a minimum, the following mechanical drawings and other documents as applicable:

(a) Pump layout and detail drawings;

(b) Valve schedules and drawings;

(c) Mechanical steelwork and metalwork shop drawings;

(d) Pipework layout and detail drawings;

(e) Painting/coating schedules;

(f) Piping schedules; and

(g) Labelling drawings including materials of labelling, flow directional arrows and method of fixing on pipelines, tees, valves, etc.

14.7 **Electrical, instrumentation and control drawings and documents**

The Contractor must provide, as a minimum, the electrical, instrumentation and control drawings and other documents as per the Electrical Specification contained in volume 3.

14.8 **HAZOP**

(a) The Contractor must supply all personnel (including a facilitator experienced in conducting HAZOP workshops), services, venue, equipment and materials necessary to undertake the HAZOP workshop during detailed design:

(b) HAZOP workshops must be conducted at a venue provided by the Contractor which is acceptable to BRC.

(c) The Contractor must:

(i) Use a proprietary HAZOP package with which the Contractor’s facilitator has proven experience;

(ii) In facilitating the HAZOP, employ a suite of appropriate guide words;

(iii) Prepare in advance of the workshop, by populating the HAZOP worksheet by way of dividing the Works up into noded areas;

(iv) Document the entire HAZOP and not only the exceptions requiring actions; and

(v) Submit the HAZOP report to the Principal's Representative for review and comment.

(d) The HAZOP workshops must be undertaken after all preliminary (30%) drawings are completed for:

(i) PFD
(ii) P&IDS

(iii) HGLs

(iv) Civil layouts;

(v) Equipment layout;

(vi) Pipework layout;

(e) The HAZOP workshops must confirm the proposed equipment selection and its arrangement prior to the Contractor’s detailed design proceeding and commencing manufacture, fabrication, erection or construction of any items relating to the HAZOP workshops.

15. Safety in design

15.1 General requirements

(a) The Contractor must address and minimise operational, maintenance, workplace, health, safety and environmental risks during the service life of the Works by eliminating risk in design.

(b) All aspects of the design must be reviewed by the Contractor to ensure safety and prevention of damage to structures, equipment or environment under normal, flood and maintenance operation.

(c) The Contractor must identify all material hazards and must eliminate or effectively mitigate those hazards during the design phase. Hazards to be assessed include:

(i) Physical – such as noise, radiation, light, vibration, heat, and manual handling;

(ii) Chemical – such as poisons, dusts, corrosive agents, flammable or explosive materials;

(iii) Gaseous – such as H₂S, and explosive gases such as methane;

(iv) Mechanical/electrical – such as slips, trips and falls, tools, electrical equipment;

(v) Psychological – such as fatigue.

(d) The risk assessment process must:

(i) Adopt a life cycle approach that considers construction, installation, commissioning, operation, maintenance, repair and demolition of the asset being designed;

(ii) Adopt a consultative approach during the design and construction phases with relevant stakeholders, including designers, constructors, operators, maintenance staff and WHS personnel; and

(iii) Identify and adopt risk control measures which reflect the hierarchy of controls described in clause (e) below.

(e) If elimination of the hazard by design is not possible or feasible, then the risk still exists and must be minimised by using the most effective method. The most effective methods, in the order of preference, are as follows:
(i) Substituting the system of work or machinery with something safer;

(ii) Isolating the hazard;

(iii) Minimising the risk by introducing engineering controls (e.g. guard rails, scaffolding, etc.);

(iv) Minimising the risk by adopting administrative controls (e.g. warning signs, safe work practices, etc.); and/or

(v) Using personal protective equipment (e.g. safety glasses, ear muffs, etc.).

(f) If no single control is sufficient to properly and adequately mitigate the hazard, a combination of the above controls must be put in place by design and operations specifications to minimise the risk to the lowest level that is reasonably practical.

(g) Where control or procedure measures are to be relied upon for hazard mitigation, the Contractor must record that physical means were investigated and found to be impractical. This must be clearly demonstrated in the quality assurance system and records for the Project through the Quality Plan, procedures, design calculations and documentation, verification process, check lists and change records. Where control strategies are utilised all must be documented and targeted training provided by the Contractor. The controls and/or procedure measures must be clearly identified and incorporated in the O&M Manual, Process Operations Manual and SOPs.

16. Design requirements for operation and maintenance

16.1 General requirements

(a) The design prepared by the Contractor must take into consideration the operations and maintenance of the Facility.

(b) The Contractor must consider the following factors in designing for maintainability:

(i) Standardising: using Australian and International Standards for all equipment;

(ii) Commonality: in order to maximise equipment knowledge and to reduce spare parts holdings, the selection of equipment must consider commonality of equipment and parts between items;

(iii) Modularity: to reduce replacement time, where possible sub-assemblies to be modularised to allow for quick removal and replacement;

(c) Materials used must be selected for use in the environment in which they are to operate.

17. Design Life and Residual Design Life

17.1 Design Life

(a) In respect of the Works, “Design Life” for each Asset Type means:

(i) The period referred to in Table 17-1 from Practical Completion;

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Design Life (Years) of Asset</th>
</tr>
</thead>
</table>

Table 17-1 - Design Life
### 18. Design certification

(a) All design work undertaken by or on behalf of the Contractor must be certified by a qualified engineer appropriate to the relevant engineering discipline, and registered in Queensland as an RPEQ.

(b) Each submission of Design Documents to the Superintendent for PTU in accordance with Clause 14.3 must be accompanied by a statement from the Contractor’s design manager certifying that the submitted Design Documents comply in all respects with the requirements and/or intent of the Contract. A similar certification must accompany each subsequent revision.

### 19. As Constructed documentation

#### 19.1 Required Features

As a minimum, the Contractor shall complete an ‘As-constructed’ survey of:

- a) Invert levels – intervals governed by change in horizontal and vertical grades
- b) Fittings – invert levels and corresponding surface level heights (if applicable)
- c) Structures – invert and surface levels

#### 19.2 Co-Ordinate System & Survey Coding

The ‘As-constructed’ survey shall comply with the following:

- a) Datum – Geocentric Datum of Australia (GDA)
- b) Grid Co-ordinates – Map Grid of Australia (MGA94) Zone 56
- c) Vertical Co-ordinates – Australian Height Datum (AHD)
  - i. levels to be referenced to origin permanent survey mark with adopted height value
- d) Coding – as per TMR Surveying Standards, which can be accessed via TMR’s website:
  - i. Business and industry > Technical publications > Surveying

#### 19.3 Accuracy Requirements

The accuracy requirements for the required features shall be:

- a) Pipeline inverts, fittings and structures – 25mm
- b) Survey marks – 10mm
- c) Other – 50mm
19.4 XML Files

The Contractor shall be required to complete an ‘As-constructed’ XML File in accordance with Bundaberg Regional Council’s Guidelines for Creation and Submission of ADAC XML Files, which has been provided in Appendix D.

The information required to be recorded in the ‘As-Constructed’ XML File shall generally be associated with the minimum survey features outlined above.

The information recorded in the Contractor’s ‘As-Constructed’ XML File shall be reviewed by the Surveyor during the ‘As-Constructed’ survey, and amended where required.

19.5 Deliverables

The following deliverables shall be submitted to the Superintendent with the request for Practical Completion:

(a) A detailed feature survey in 12d ASCII format (*.12da) in accordance with the above
(b) ‘As-constructed’ XML Files, in accordance with the above.

The final ‘As-constructed’ survey shall be certified as being accurate by a survey under the Surveyors Act, 2003.

20. Technical Specifications, Standards and procurement

20.1 Technical Specification

Subject to Clause 20.3, the Contractor must design and construct all components of the Project in accordance with the PPR and the attached Technical Specifications.

20.2 Australian Standards

The Contractor must use editions of relevant Australian Standards that are current 14 days prior to the Commencement Date.

20.3 Order of precedence

(a) Specific requirements take precedence over general requirements.

(b) Where there is an inconsistency between the documents comprising the PPR the inconsistency must be resolved in the following order of precedence for documents (with the document given the highest precedence numbered first, and the document with the lowest precedence numbered last):

(i) This PPR document;

(ii) The Technical Specifications, namely:

(c) To the extent:

(i) the PPR contains references to standards produced by the Water Services Association of Australia (WSAA) or the Australian Standards; and

(ii) there is an inconsistency between those standards, the standards produced by WSAA have precedence.
21. Specific Requirements

21.1 Site information

(a) The geotechnical information documenting the results of geotechnical investigations on the Site are attached in Volume 2 as Annexure C.

(b) Survey Information in consolidated 12da file (Volume 2, Annexure E), including:
   (i) Original survey date to be advised
   (ii) As constructed survey date to be advised

(c) The stormwater design for new stormwater infrastructure along Frizzels Road limits the vertical location of new water and sewer infrastructure. The new water and sewer infrastructure must be located below AHD = 2.95 m.

21.2 Protection of Cultural Heritage

A Cultural Heritage search was conducted and no Aboriginal cultural heritage sites are recorded on or close to the Site. The successful tenderer must however adhere to the Aboriginal Cultural Heritage Act 2003.

21.3 Disposal of surplus material

(a) The Contractor must remove and dispose of all surplus material off-site.

21.4 Assessment for Site contamination

(a) The Site is not formally identified as a contaminated site.

(b) Notwithstanding clause (a), the Contractor must make an assessment of and full allowance for the impacts of treating or dealing with potential contamination in its design and construction processes.

21.5 Acid sulfate soils

(a) The site may contain acid sulfate soils.

(b) Disturbance of any acid sulfate soils/ potential acid sulfate soils must be planned and managed by the Contractor to avoid potential adverse effects on the natural and built environment (including infrastructure) and human health.

21.6 Structure work

(a) The current Australian earthquake loading code, AS 1170.4, places Bundaberg City within the highest earthquake hazard region of Queensland.

21.7 Fencing

(a) The Contractor must provide temporary fencing to maintain the integrity of Site security and safety at all times.

21.8 Grassing of disturbed areas

(a) As a minimum, the Contractor must grass and restore all areas of the Site disturbed by the Project Activities. Grassed areas must be seeded with a grass species approved by
the Superintendent. The Contractor must maintain the grass (water, fertilise, mow) until it is fully established.

(b) The Contractor must spread topsoil to areas of the Site to be grassed. The finished surface level must be graded to an even surface that is free draining and avoids ponding.

21.9 Connection to existing vacuum pipeline and pressure main

(a) The Contractor must connect to the existing vacuum sewer at five locations as per the drawings attached in Volume 2 Annexure B.

(b) These connections must take place during off peak periods between the hours of 9pm and 5am Monday to Friday.

(c) The Contractor must develop a detailed procedure for these connections and provide this to the Superintendent at least fourteen (14) days prior to undertaking the work.

(d) Once the procedure is agreed with the Superintendent, the Contractor must give the Superintendent a minimum of seven (7) days’ notice of their intention to undertake this work.

21.10 Testing of pipelines and water retaining structures

(a) The Contractor must ensure that structures and pipes are clean before any Test is performed.

(b) Pressure Tests must not be undertaken during wet weather.

(c) If any of the Tests prove to be unsatisfactory, the fault must be detected and repaired and then the Test reapplied. The Contractor must continue to repair and re-test until a satisfactory Test result is obtained. Even if testing produces satisfactory Test results, any structure, pipeline or conduit in which there is a visible or detectable leak or blockage must be repaired to the satisfaction of the Superintendent.

(d) All pipelines and structures must be tested for leakage as soon as practicable after they have been constructed. All pipe openings in walls must be plugged with the plugs placed in the pipes as near as practicable to the internal face of the well or the tank.

(e) Where the structure is subjected to a significant head of ground water, the Superintendent may direct that the hydrostatic Test on the structure be by visual inspection and measurement of infiltration.

(f) If the Superintendent requires a visual inspection and infiltration Test then the Superintendent will determine the duration over which infiltration is to be measured, and the amount of infiltration allowable for a satisfactory Test.

The Contractor must provide to the Superintendent a proposal detailing how it proposes to hydrostatically test all sections of the pipeline.