



**AECOM**

# **REQUEST FOR EXPRESSION OF INTEREST**

## **Prime Contractors for Harvey Tank Replacement Project**

{00478212; 1 }Prepared for:  
Village of Lions Bay

**Prepared by:**

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**Project Number:**

60546407

**Date:**

July 19, 2018

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## REQUEST FOR EXPRESSION OF INTEREST HARVEY TANK REPLACEMENT PROJECT

Submissions from respondents will be received until 2:00 p.m. PST on August 14, 2018 either at the office of AECOM Canada Ltd. c/o Fourth Floor, Suite 330, 3292 Production Way, Burnaby, B.C. V5A 4R4. Attention: Andreea Irimia or by email at [andreea.irimia@aecom.com](mailto:andreea.irimia@aecom.com).

The proposed work is listed below but may be increased or decreased at the discretion of the Village of Lions Bay:

- Demolition and disposal of one (1) above grade, post-tensioned circular concrete potable water tank with existing capacity of 1.82 ML (existing Harvey Tank);
- Demolition and removal of electrical devices, piping and appurtenances;
- Construction of a new 2.33 ML above ground tank to store potable water (new Harvey Tank) from one of the following materials:
  - Pre-stressed Reinforced Concrete to AWWA D110 Type I; or
  - Conventional Reinforced Concrete; or
  - Glass Fused to Bolted Steel to AWWA D103;
- Siteworks including ground improvements for structural foundations, excavating, backfilling, grading, drainage, fencing, retaining walls, site dewatering and landscaping;
- Upsizing an existing valve chamber;
- Installation of process mechanical piping, valves, fittings and appurtenances for interconnection of the proposed works; and
- Electrical and instrumentation to service the new facilities and miscellaneous required to complete the Work.

Documents are available from the BC Bid website (<http://bcbid.ca>). Enquiries should be directed to Andreea Irimia of AECOM Canada Ltd, Burnaby, British Columbia, by email at [andreea.irimia@aecom.com](mailto:andreea.irimia@aecom.com).

**This process is only for general contractors that have the ability and interest to act as a Prime Contractor (as herein defined).** Successfully pre-qualified respondents may be invited to submit a tender in a subsequent and separate process and, if successful, enter into a contract directly with Village of Lions Bay for work related to the Harvey Tank Replacement Project. Subcontractors and suppliers will not be pre-qualified under this process.

## 1.0 INTRODUCTION

The Lions Bay potable water supply system draws water from the Harvey and Magnesia Creeks for treatment and delivery to residents of the Village of Lions Bay. The Village of Lions Bay waterworks system can be classified into three main categories: raw water supply and treatment; storage; and distribution.

The raw water supply system consists of raw water creek intakes situated upslope (east) of Village with an independent Water Treatment Plant (WTP) for both the Harvey and Magnesia treatment, storage and distribution systems. The Harvey Creek WTP and Harvey Tank, which stores the treated water prior to distribution, are located approximately 150 metres past the terminus point of Oceanview Road.

The Village is seeking replacement of the existing Harvey Tank, which was constructed in 1984 by the Ministry of Transportation and Infrastructure (MOTI). The existing tank is a post-tensioned concrete tank consisting of precast concrete panels assembled vertically and tensioned onsite in a similar means to AWWA D115 tank types.

The Village is considering the use of the following primary tank construction materials for the replacement of the tank:

- Pre-stressed Reinforced Concrete to AWWA D110 Type I; and
- Conventional Reinforced Concrete; and
- Glass Fused to Bolted Steel to AWWA D103.

This REQUEST FOR EXPRESSION OF INTEREST (“RFEOI”) serves to pre-qualify respondents’ replacement of the Harvey Tank as described herein. The scope of work for the contract generally includes, but is not limited to, the following:

- Demolition and disposal of one (1) above grade, post-tensioned circular concrete potable water tank with existing capacity of 1.82 ML (existing Harvey Tank);
- Demolition and removal of electrical devices, piping and appurtenances;
- Construction of a new 2.33 ML above ground tank to store potable water (new Harvey Tank);
- Siteworks including ground improvements for structural foundations, excavating, backfilling, grading, drainage, fencing, retaining walls, site dewatering and landscaping;
- Upsizing an existing valve chamber;
- Installation of process mechanical piping, valves, fittings and appurtenances for interconnection of the proposed works; and
- Electrical and instrumentation to service the new facilities and miscellaneous required to complete the Work.

The Village of Lions Bay (Village) invites experienced Prime Contractors (as herein defined) to submit expression of interest documents as specified in this RFEOI. The Village may, at its sole discretion, pre-qualify a limited number of the most eligible Respondents. Respondents shall clearly demonstrate in their RFEOI Submission a proven track record, proficiency and commitment of resources through the diligent completion of all forms.

The pre-qualification will be based on an assessment of the Respondent’s ability and capacity to meet the contractual obligations for constructing similar sized water storage facilities.

The Village reserves the right to use its sole and absolute discretion in evaluating the pre-qualification documents. Without limiting the generality of the foregoing, the Village may reject any or all pre-qualification documents.

## 2.0 DEFINITIONS

In this RFEI document package, the following terms have the following meanings:

**“Agreement”** means the executed formal written construction contract between the Village of Lions Bay and the successful bidder setting out the respective duties, responsibilities and obligations contemplated by this RFEI and a tender yet to be issued.

**“Village of Lions Bay”** and **“Village”** means the municipality in British Columbia and includes any of its employees, officials, or designated agents.

**“Contract”** means Harvey Tank Replacement Project.

**“Contract Work Schedule”** means the Contractor’s detailed task by task work schedule for the construction of the Work within the framework of the Project Schedule. The Contract Work Schedule shall become an integral part of and conform to the Project Schedule.

**“Contractor”** means Prime Contractor in a direct Agreement with the Village of Lions Bay forming the Contract.

**“Engineer”** means AECOM Canada Ltd. and its designates.

**“Evaluation Team”** means a group of representatives from Village of Lions Bay and AECOM who will review and evaluate RFEI submissions.

**“May”** and **“should”** used in this RFEI denote permissive (not mandatory).

**“Member Firm”** means an individual or entity that is a severally-liable member of the Respondent.

**“Must,” “shall,” and “will”** used in this RFEI denote imperative (mandatory).

**“Place of Work”** means the site or location that would be defined and delineated in the Contract for which Contractor would be granted access to perform the Work.

**“Prime Contractor”** means the person or entity potentially contracting with the Village for the provision of labour, supplies, materials, equipment and other resources for the supply, execution, fabrication, installation and construction of the Work. This includes the company name on the Contract and having provided the bonds and insurance for the Contract.

**“Project”** refers to the Harvey Tank Replacement project.

**“Project Team”** means Village of Lions Bay’s assigned staff and the Engineer.

**“Respondent”** means a legal entity, being a person or partnership, firm or joint venture who submits a submission in response to this RFEI.

**“RFEI”** means this REQUEST FOR EXPRESSION OF INTEREST.

**“RFEI Closing Place”** means the location for delivery of RFEI Submissions designated in the RFEI Notice.

**“RFEI Closing Time”** means the scheduled time for receipt of RFEI Submissions from Respondents designated in the RFEI Notice.

**“Subcontractor”** means the person or entity contracting and bonded with the Prime Contractor for the provision of labour, supplies, materials, equipment and other resources for the supply, execution, fabrication, installation and construction of the facilities.

**“Superintendent”** means the Respondent’s competent representative nominated in the Respondent’s RFEI Submission who, along with appointed competent assistants, would be responsible to provide all necessary supervision at the Place of the Work at all times during the progress of the Work. The Superintendent will not be changed except by change order in the Contract.

**“Work”** means the construction work and related services (including the supply of equipment, labour and materials) under the Contract associated with the Project.

### 3.0 INSTRUCTIONS TO RESPONDENTS

- 3.1 This RFEOI is subject to compliance with New West Partnership Trade Agreement (“**NWPTA**”) policies and by-laws.
- 3.2 AECOM has been retained by the Village to act as the Engineer for the Project. AECOM will perform design, tender, contract administration, construction supervision and post-construction services.
- 3.3 **The information supplied in this RFEOI is preliminary and subject to change.** The information is furnished merely for the general reference and convenience of each Respondent. The information is not in any way represented, warranted or guaranteed to be accurate or complete by the Village or AECOM. Each Respondent hereby acknowledges and agrees that the Village and AECOM do not owe any Respondent a duty of care concerning the accuracy or completeness of the information in this RFEOI.
- 3.4 By submitting an expression of interest, the contractor accepts the conditions described within this document.
- 3.5 The Village reserves the right to pre-qualify contractors based on the responses in this RFEOI.
- 3.6 In the event that the Village chooses to pre-qualify contractors which it may do at its discretion, only contractors that have been notified by AECOM in writing that they have successfully pre-qualified may submit a bid on this contract, in which case Prime Contractors will be responsible for distributing the Bid Documents to Subcontractors, and any bids received from companies that have not pre-qualified as Prime Contractor will be returned unopened.
- 3.7 Modification of RFEOI Submissions

Respondent RFEOI submissions may be modified provided the modification:

- is in the form of a letter or a fax transmittal and all pages of such letter or fax transmittal are received at the RFEOI Closing Place prior to the RFEOI closing time identified in the Pre-Qualification Notice;
- states the name of the Respondent;
- clearly identifies the details of the modification; and
- is signed by the Respondent’s authorized representative(s).

The Village and AECOM do not accept responsibility for the content of modifications or revocations of Respondents that are, for any reason, delayed, illegible or otherwise improperly received. The Village may, in its discretion, disregard modifications that are improperly received.

#### 3.8 Waiver

The Respondent hereby waives any claim for damages or costs of any nature against the Village and AECOM (including, without limitation, the cost of preparing and submitting the RFEOI submission, and any anticipated profits and contributions to overhead) arising out of the Village’s use of its discretion under the RFEOI documents, and AECOM’s advice to the Village.

#### 3.9 Submissions to be Under Seal

All RFEOI submissions shall be signed by officer(s) who have the authority to bind the Respondent, sealed and dated in the case of a corporation. In the case of an individual or non-incorporated organization, RFEOI submissions shall be signed, dated and witnessed by a lawyer or notary public.

If the RFEOI submission is submitted by a partnership, consortium or joint venture, Member Firms or general partners authorized to bind the partnership, consortium or joint venture shall sign, seal and date or witness the RFEOI submission, as described herein.

### 3.10 Information Requests

The Evaluation Team reserves the right, but is under no obligation, to request clarification and additional information during the evaluation period after the RFEOI Closing Time.

### 3.11 Selection of Short-Listed Respondents

The Village hereby reserves the right to short-list any number of Respondents in its absolute discretion.

The Village is not under any obligation to short-list any Respondents, and reserves the right in its sole discretion to cancel this RFEOI at any time for any reason or without reason. The Village may, in its discretion, re-issue the RFEOI.

The Village reserves the right to short-list Respondents that the Village deems, in its sole and absolute discretion, to be most advantageous to the Project. For the purposes of evaluation, the Village may take into account any criteria that it sees fit, including any previous work experience of the Respondent with the Village.

Appeals related to the RFEOI process and final outcome will not be considered by either the Engineer or the Village.

The Village reserves the right to determine, in its sole discretion, to tender the Contract on the open market notwithstanding submissions by qualified Respondents to this RFEOI.

### 3.12 Corporate Registry

Registration in the Corporate Registry is not required for the RFEOI submission. All Prime Contractors entering into a Contract with the Village must be registered to conduct business in the Province of British Columbia. This requirement may be satisfied by being registered with the Corporate Registry of the Corporation Registry of British Columbia or, where the NWPTA applies, by being registered to conduct business in British Columbia extra-provincially through the corporate registry in the corporation's home jurisdiction.

### 3.10 Submission Confidentiality

Any third party information, as defined by *The Freedom of Information and Protection of Privacy Act* (British Columbia), contained in the RFEOI submission is confidential and will not be disclosed by AECOM or the Village unless required by law to do so. AECOM and the Village will not be entering into individual non-disclosure agreements with Respondents prior to RFEOI submission.

### 3.11 Attempt to Contact / Lobbying

Any attempt by a Respondent to contact the Village, which includes any employee and/or elected official, may result in immediate disqualification of the Respondent from this RFEOI.

Respondents, Respondent affiliates and team members including key individuals, and their respective directors, officers, employees, consultants, agents, advisors and representatives will not engage in any form of political or other lobbying whatsoever in relation to the Project, this RFEOI, or the selection process, including for the purpose of influencing the outcome of the selection process. Further, no such person (other

than as expressly contemplated in the RFEOI) will attempt to communicate in relation to the Project, this RFEOI, or the selection process, directly or indirectly, with any representative of the Village, or any member of the Village Council for the purpose of:

- a) Commenting on, or attempting to influence views on, the merits of the Proponent's proposal, or in any relation to proposals of any Proponents;
- b) Influencing, or attempting to influence, the evaluation and ranking of the proposals, the selection of a preferred Proponent, or any negotiations with a preferred Proponent;
- c) Promoting the Proponent or its interests in the Project;
- d) Commenting on or criticizing aspects of this RFEOI, the selection process, the Project, including in a manner which may give the Proponent a competitive or other advantage over other Proponents; or
- e) Criticizing the RFEOI submissions of other Proponents.

### 3.12 Reference Information

References for projects must include current contact information. The references that are supplied may be contacted and asked several questions pertaining to the Prime Contracting performance on the project.

The owner and consulting engineer references may be contacted for all listed projects and information provided by the Respondent. Previous direct project experience with the Village's representatives and AECOM will also be considered in the score.

## 4.0 PRE-QUALIFICATION PROCESS

### 4.1 Preliminary Schedule

The preliminary schedule for Harvey Tank Replacement Project is as follows while being subject to change:

- RFEOI documents issued: July 24, 2018
- RFEOI close: August 14, 2018
- Notify Pre-Qualified Respondents: August 17, 2018
- Bid documents expected to be issued: August 20, 2018
- Expected Tender Closing Date: September 20, 2018
- Expected Notice of Acceptance: October 4, 2018

The expected construction completion date is December 15, 2019.

### 4.2 Non-Mandatory Site Meeting

The time and date of a non-mandatory site meeting is **10:00 a.m. on Tuesday, July 31, 2018**. It is recommended that all Respondents that intend to submit an expression of interest attend the meeting.

The meeting will be conducted at the offices of the Owner located at **400 Centre Road, Lions Bay, BC, V0N 2E0, B.C.** Due to the site conditions at the Place of the Work, all attendees are required to wear personal protective equipment including high-visibility vests and CSA approved steel-toed work boots.

Respondents that cannot attend the scheduled site meeting may contact the Village's Public Works Department to schedule a site visit at (604) 921-9833. Requests should be made at least 48 hours in advance and are subject to staff scheduling availability. The Village reserves the right to refuse requests and/or schedule multiple viewings of the site at the same time.

### 4.3 Clarifications and Requests for Information

Should the Respondent find discrepancies in or omissions from, the RFEOI documents, or be in doubt as to their meaning, the Respondent should at once notify AECOM, who may send an Addendum to all Respondents. No oral interpretation made by AECOM to any Respondent as to the meaning of any part of the RFEOI documents shall be binding upon the Village, or be effective to modify any of the provisions of the RFEOI documents. Words and abbreviations used in the RFEOI documents which have well known technical or trade meanings, or are defined in the RFEOI documents, shall be interpreted in accordance with such meanings or definitions.

The Village and AECOM encourage Respondents to submit requests for information. Every request for an interpretation/information shall be made in writing and promptly forwarded to the Engineer at the following address:

AECOM  
330 – 3292 Production Way  
Burnaby, BC V5A 4R4

Telephone: (604) 444-6475  
Andreea.Irimia@aecom.com

Attention: Andreea Irimia

#### 4.4 Addenda

Any interpretation, correction or change to the RFEOI documents will be made by written Addendum. Interpretations, verbal statements made by the Village or its' representatives, corrections and changes made in any other manner will not be binding, and potential Respondents shall not rely upon such interpretations, corrections or changes. Interpretations, verbal statements made by the Village or AECOM, corrections and changes made in any manner other than Addenda shall be regarded as off-the-cuff comments.

Addenda, if applicable, will be posted on the BC Bid website.

Each Respondent is responsible for ensuring that all issued addenda have been received and that such receipt has been acknowledged on the RFEOI submission form where indicated.

#### 4.5 The purpose of this RFEOI is to solicit expression of interest and pre-qualification information from Respondents that the Village has deemed important in order to achieve the Work within a reasonable construction budget and to achieve the construction completion date. Important qualification information includes the Respondent's:

- **Experience and performance of the Respondent acting as a Prime Contractor for water storage construction projects including, but not limited to, any or all of the following materials:**
  - **Pre-stressed Reinforced Concrete to AWWA D110 Type I; and**
  - **Conventional Reinforced Concrete; and**
  - **Glass Fused to Bolted Steel to AWWA D103.**
- Qualifications and track record of the Project Manager and Superintendent nominee(s)
- Health and Safety program, performance, certifications and records
- Quality control program, performance and records
- Project specific references from owners and consulting engineers on similar water storage contracts regarding the Respondent's past performance with respect to:
  - Developing, reporting, managing and meeting schedules and achieving substantial performance and final completion on time.
  - Attention to ongoing maintenance, clean up and rectification of deficiencies
  - Performance within the contract(s) with respect to Health and Safety, Environmental and Quality compliance and leadership
  - Management of Subcontractors and suppliers
  - Propensity for presenting disputes and forcing arbitration and litigation
  - Summary of liens and discharges
  - Performance with respect to managing and meeting schedules and achieving final completion;
  - Financial standing and capacity;
  - Ability to acquire and comply with approvals.

## 5.0 SUBMISSION REQUIREMENTS AND EVALUATION CRITERIA

Respondents should follow the format specified herein and should use the form templates in Appendix A to communicate the requested information.

- **Hard Copy Delivery**

Respondents shall provide one (1) original copy of the RFEI submission.

Deliver/Respond to: AECOM Canada Ltd. at 330 – 3292 Production Way, Burnaby, BC V5A 4R4  
ATTN: Andreea Irimia

Clearly mark envelope as: Harvey Tank Replacement Project – Expression of Interest

- **Emailed Delivery**

Emailed submission will also be accepted. Total attachment file size shall be no more than 8.0 MB.

Email/Respond to: AECOM Canada Ltd., Andreea Irimia  
[andreea.irimia@aecom.com](mailto:andreea.irimia@aecom.com)

Subject of the email: Harvey Tank Replacement Project – Expression of Interest

All submitted information is subject to verification by the Evaluation Team. In the event that it is determined that any of the information submitted is inaccurate or misleading, the Respondent may be disqualified from being considered for short-listing. Incomplete information may limit the Respondent's ability to qualify.

### 5.1 **MODULE 1 – PREFERRED SUBMISSION REQUIREMENTS**

All requirements of Module 1, as listed below, are preferred and the Village reserves the right to evaluate the responses. The preferred submission requirements are as follows:

.1 Complete Form A: Pre-Qualification Application

If the Respondent is a single firm, only the lead firm acting as Prime Contractor shall complete this form. If the Respondent is a joint venture or consortium, each Member Firm shall complete a copy of the form.

.2 Letter of Good Standing

The Respondent or each Member Firm of the Respondent shall provide a valid Letter of Good Standing from WorkSafe BC or equivalent letter from the Respondent's home jurisdiction.

.3 Complete Form A1: Respondent Project Experience as Prime Contractor

The Respondent shall complete Form A1 (attached at Appendix A) for a minimum of three (3) projects that have been completed in the past ten (10) years for which they acted as the Prime Contractor. If the Respondent is comprised of more than one Member Firm, a minimum of three (3) reference projects are required for each Member Firm that acted as Prime Contractor for that project. Each project identified shall meet the following minimum requirements:

- a) Each individual project shall have had a construction value of approximately One Million Dollars (\$1,000,000.00) or more, and;
- b) As a minimum one of the three project references shall include a treated water storage reservoir with a treated water storage volume of 2 million liters or greater (2 ML).

Scoring for Modules 2 to 4 will incorporate the factors described herein for each submission.

## 5.2 MODULE 2 – QUALIFICATION AND RESUMES

- .1 Provide resumes for the individuals nominated as Superintendent and Project Manager. The Superintendent and Project Manager, nominated may be two (2) separate people and committed to perform these respective roles for the Contract in the event the successful tenderer is awarded the Contract following the Tendering process.

The Village considers it important that the nominated Superintendent and Project Manager all have a proven track record in delivering quality work for potable water municipal contracts. The Village of Lions Bay reserves the right to evaluate the nominees' qualifications, years of overall experience and applicability of their experience.

## 5.3 MODULE 3 – CONSTRUCTION CONTRACT REFERENCES

- .1 The Evaluation Team may make reasonable attempts to contact the owner and consulting engineer for each construction contract the Respondent identifies in Forms A1, B and C.

The owners and consulting engineers provided as a reference may be asked a series of Questions regarding the three contracts identified by the Respondent in From B, C and A1 which may include but are not limited to:

- Overall leadership on the construction site
- Timely completion of the work
- Responding to contemplated changes and change orders
- Communication with consulting engineer and owner representatives
- Demeanour and performance in conflict resolution
- Timely rectification of deficiencies
- Execution of contractor's quality control program
- Execution of the contractor's health and safety program
- Meeting environmental requirements
- Organization and management of sub-contractors
- Ongoing tidiness during the work (control of debris, dust, water, noise)
- Payment of sub-contractors
- Liens and discharges
- Presentation of disputes, arbitration and litigation
- Documentation

#### **5.4 MODULE 4 – RESPONDENT COMPANY INFORMATION**

- .1 Complete Form D: Respondent Company Information for each member firm of the Respondent who will act as Prime Contractor.
- .2 Provide an overview of the company including number of years in the business, the type of work completed, number of employees, etc.
- .3 Provide an overview of the qualifications of the company to successfully complete the type work described within this RFEOI.

#### **5.5 MODULE 5 – RESPONDENT FEEDBACK AND PROJECT INPUT**

- .1 Form E is entirely optional and will not form part of the evaluation of the submitted RFEOI. Form E is an opportunity for the Respondent to provide feedback, comments, and/or raise potential issues, concerns or risks regarding the proposed works. The Village wants to ensure that any particular challenges are identified and, to the extent possible, mitigated to provide for a successful project for all parties.

### **6.0 EVALUATION METHOD**

An Evaluation Team consisting of representatives from the Project Team will collectively evaluate the RFEOI submissions and any information provided by information request to determine the short-list. An interview may be required. Where an interview is required, the Project Manager and Superintendent of the Respondent firm will be asked to attend.

The Village of Lions Bay reserves the right to use its sole and absolute discretion to evaluate the RFEOI submissions and may waive any of the requirements herein.

Upon conclusion of the evaluation process, a final recommendation will be made for acceptance by Village.

The pre-qualification evaluation results shall be the property of the Village and will not be disclosed under any circumstances, either before, during, or after the evaluation/selection process.

A member of the Project Team will notify each Respondent's primary contact in writing as to whether or not the Respondent has been short-listed.

# Appendix A

## Forms

**Form A: Pre-Qualification Application**

1. Project Title                      REQUEST FOR EXPRESSION OF INTEREST  
for Harvey Tank Replacement Project

2. Respondent  
(or Member Firm)                      \_\_\_\_\_  
Name of Respondent (or Member Firm)

\_\_\_\_\_

Street

\_\_\_\_\_

City                      Province                      Postal Code

3. Contact Person                      The Respondent authorizes the following contact person  
to represent the Respondent for the purposes of the RFEOI Q  
submission.

\_\_\_\_\_

Contact Person                      Title

\_\_\_\_\_

Telephone No.                      Facsimile No.

4. Request                                      The Respondent wishes to be considered for pre-qualification  
for the Harvey Tank Replacement Project  
located in Lions Bay, British Columbia.

5. Qualification                              The Respondent has completed the submission requirements  
of the RFEOI documents.

6. Addenda                                      The Respondent certifies that the following addenda has been  
received, and agrees that they shall be deemed to form a part of  
this REQUEST FOR EXPRESSION OF INTEREST.

No. \_\_\_\_\_                      Date: \_\_\_\_\_

No. \_\_\_\_\_                      Date: \_\_\_\_\_

No. \_\_\_\_\_                      Date: \_\_\_\_\_

No. \_\_\_\_\_                      Date: \_\_\_\_\_

**With a seal**

\_\_\_\_\_  
Date (day, month, year)

\_\_\_\_\_  
Print Name:

\_\_\_\_\_  
Print Title:

I have the authority to bind the corporation.

(Corporate Seal)

\_\_\_\_\_  
Date (day, month, year)

\_\_\_\_\_  
Print Name:

\_\_\_\_\_  
Print Title:

I have the authority to bind the corporation.

(Corporate Seal)

**Without a seal**

Signed at \_\_\_\_\_

In the Province of \_\_\_\_\_

On

\_\_\_\_\_  
Date (day, month, year)

\_\_\_\_\_  
Print Name:

Witnessed by: \_\_\_\_\_

Witness Name: \_\_\_\_\_

Witness Address: \_\_\_\_\_

Witness Occupation: \_\_\_\_\_

Witness Contact Phone Number: \_\_\_\_\_

### Form A1: Respondent Project Experience as Prime Contractor

Complete multiple copies of Form A1 so that at least three projects are identified. Project advertising sheets are not acceptable in lieu of completing Form A1.

<b>Contract Title</b>	
<b>Contract Location</b>	
<b>Name of Owner</b>	
<b>Name of Consulting Engineer Firm</b>	
<b>Name of Prime Contractor (Respondent or Member Firm)</b>	
<b>Initial contract value</b>	
<b>Final contract value</b>	
<b>Start date</b>	
<b>Required completion date</b>	
<b>Date of substantial performance</b>	
<b>Date of final completion</b>	
<b>Treated Water Storage Volume</b>	
<b>Owner contact information (name and telephone number)</b>	
<b>Consulting Engineer contact information (name and telephone number)</b>	
<b>Number of lost time accidents</b>	

## Form B: Site Superintendent Project Experience

Name of Site Superintendent: \_\_\_\_\_

	Contract 1	Contract 2	Contract 3
<b>Contract Title</b>			
<b>Contract Location</b>			
<b>Was this contract an expansion of an existing facility? (Yes or No)</b>			
<b>Name of Owner</b>			
<b>Name of Consulting Engineer Firm</b>			
<b>Contract Value</b>			
<b>Potable Water Project</b>			
<b>Owner Contact Information (name, email &amp; telephone number)</b>			
<b>Consulting Engineer Contact Information (name, email &amp; telephone number)</b>			

## Form C: Project Manager Project Experience

Name of Project Manager: \_\_\_\_\_

	Contract 1	Contract 2	Contract 3
<b>Contract Title</b>			
<b>Contract Location</b>			
<b>Name of Owner</b>			
<b>Name of Consulting Engineer Firm</b>			
<b>Contract Value</b>			
<b>Largest Potable Water Tank Project</b>			
<b>Owner Contact Information (name, email &amp; telephone number)</b>			
<b>Consulting Engineer Contact Information (name, email &amp; telephone number)</b>			

### Form D: Respondent Company Information

Complete Form D for the Respondent or each Member Firm of the Respondent. Additional pages can be appended to this form.

<b>Firm Name</b>	
<b>Address of Head Office</b>	
<b>Address of Local Office (office responsible for delivery of the project)</b>	
<b>Primary Contact Person (name and telephone number)</b>	
<b>Is this the primary contact for the Respondent including all Member Firms? (Yes or No)</b>	
<b>Year firm established</b>	
<b>Type of Company (sole proprietorship, partnership, private corporation, other)</b>	
<b>Relevant Type of Work Completed.</b>	
<b>Capacity to undertake this project.</b>	
<b>Qualifications for successful completion of the project.</b>	

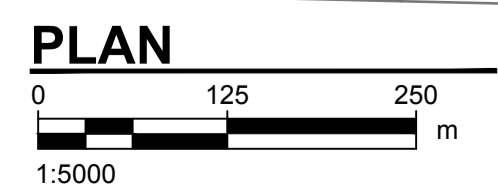
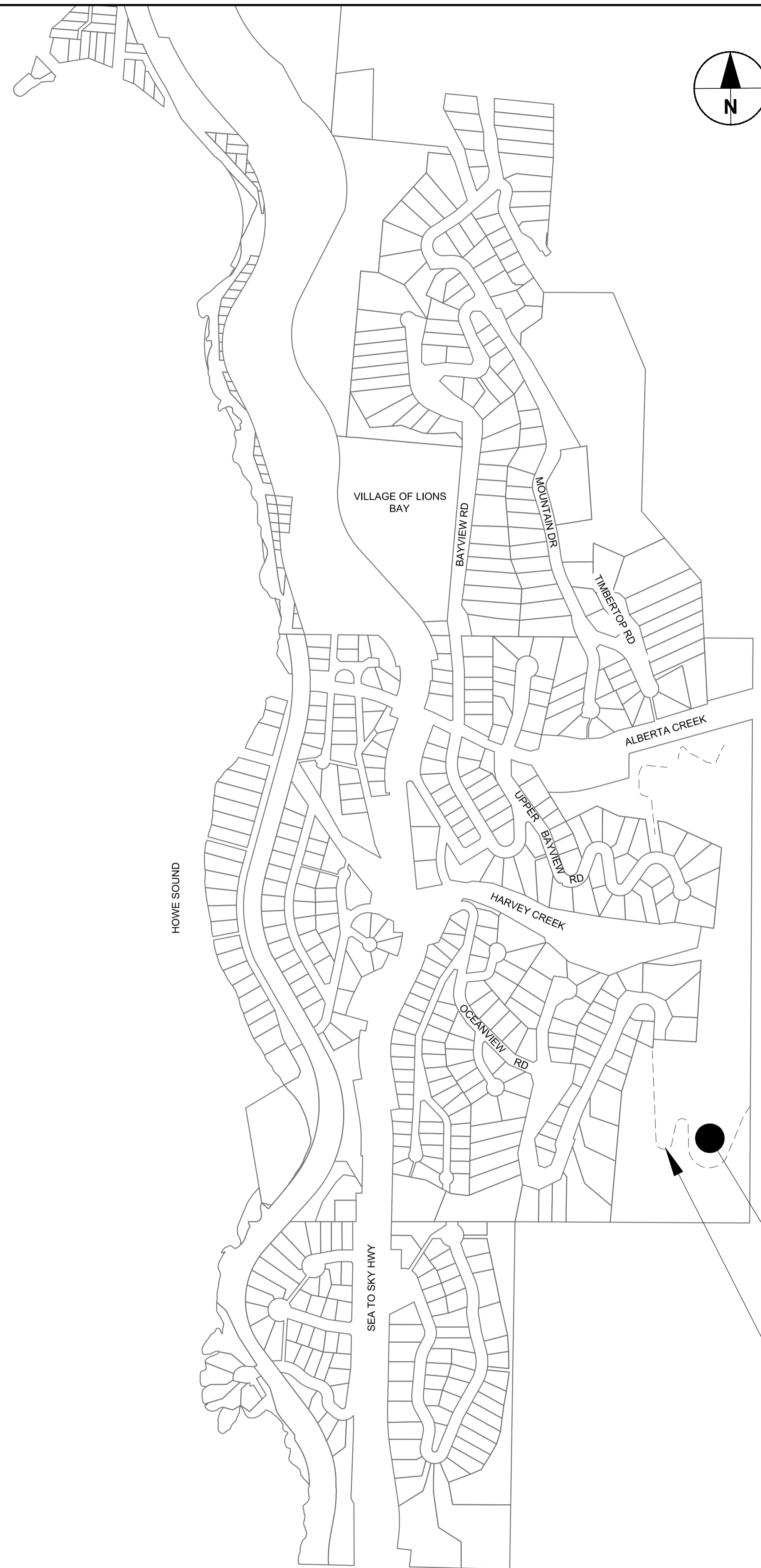
### Form E: Industry Input (Optional)

Form E is optional and shall be excluded from the evaluation process. Form E provides an opportunity for the contractors to provide input to the Village regarding the upcoming project.

<b>Subject</b>	<b>Response</b>
<b>Project risks and mitigation strategies/recommendations</b>	
<b>Tank replacement methods, materials, and constructability</b>	
<b>Schedule requirements</b>	
<b>Material staging and laydowns</b>	
<b>Materials and labour availability</b>	
<b>Other comments/risks identified.</b>	

# Appendix B

## Project Drawings



HARVEY TANK (TO BE REPLACED)  
 AND PRV 200 CHAMBER  
 (TO BE UPGRADED)

HARVEY CREEK  
 WATERSHED  
 ACCESS ROAD

**DRAWING LIST**

**GENERAL**

- G-01-000 COVER SHEET
- G-01-002 CONSTRUCTION LAYDOWN AREA SITE PLAN

**CIVIL**

- C-01-101 HARVEY TANK DEMOLITION PLAN
- C-01-102 HARVEY TANK SITE PLAN - CONCRETE TANK OPTION
- C-01-103 HARVEY TANK SITE PLAN - STEEL TANK OPTION
- C-01-104 HARVEY TANK SECTIONS AND TYPICAL DETAILS - CONCRETE OPTION
- C-01-105 HARVEY TANK OPTION SECTIONS AND TYPICAL DETAILS - STEEL OPTION

**PROCESS**

- P-01-000 INSTRUMENTATION LEGEND AND SYMBOLS
- P-01-001 EXISTING HARVEY TANK PRV 200 AND DISINFECTION FACILITY PROCESS AND INSTRUMENTATION DIAGRAM
- P-01-002 HARVEY TANK PROCESS AND INSTRUMENTATION DIAGRAM

**MECHANICAL**

- M-01-001 HARVEY TANK PRV 200 ACCESS MODIFICATIONS



**PROJECT**  
**HARVEY TANK  
 REPLACEMENT  
 PROJECT**

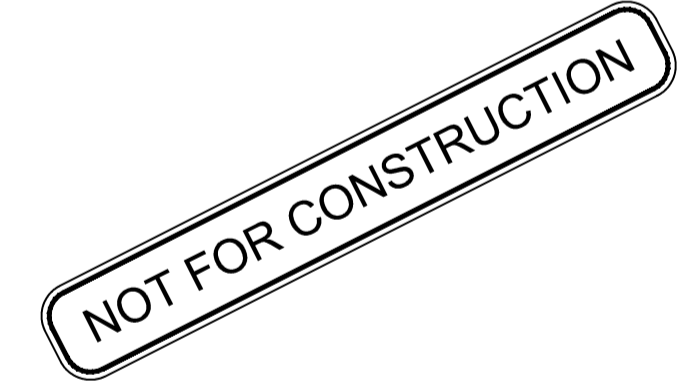
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**ISSUE/REVISION**

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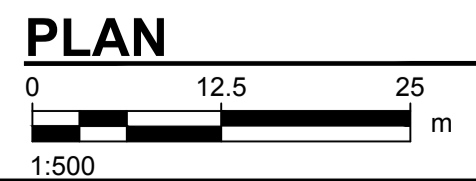
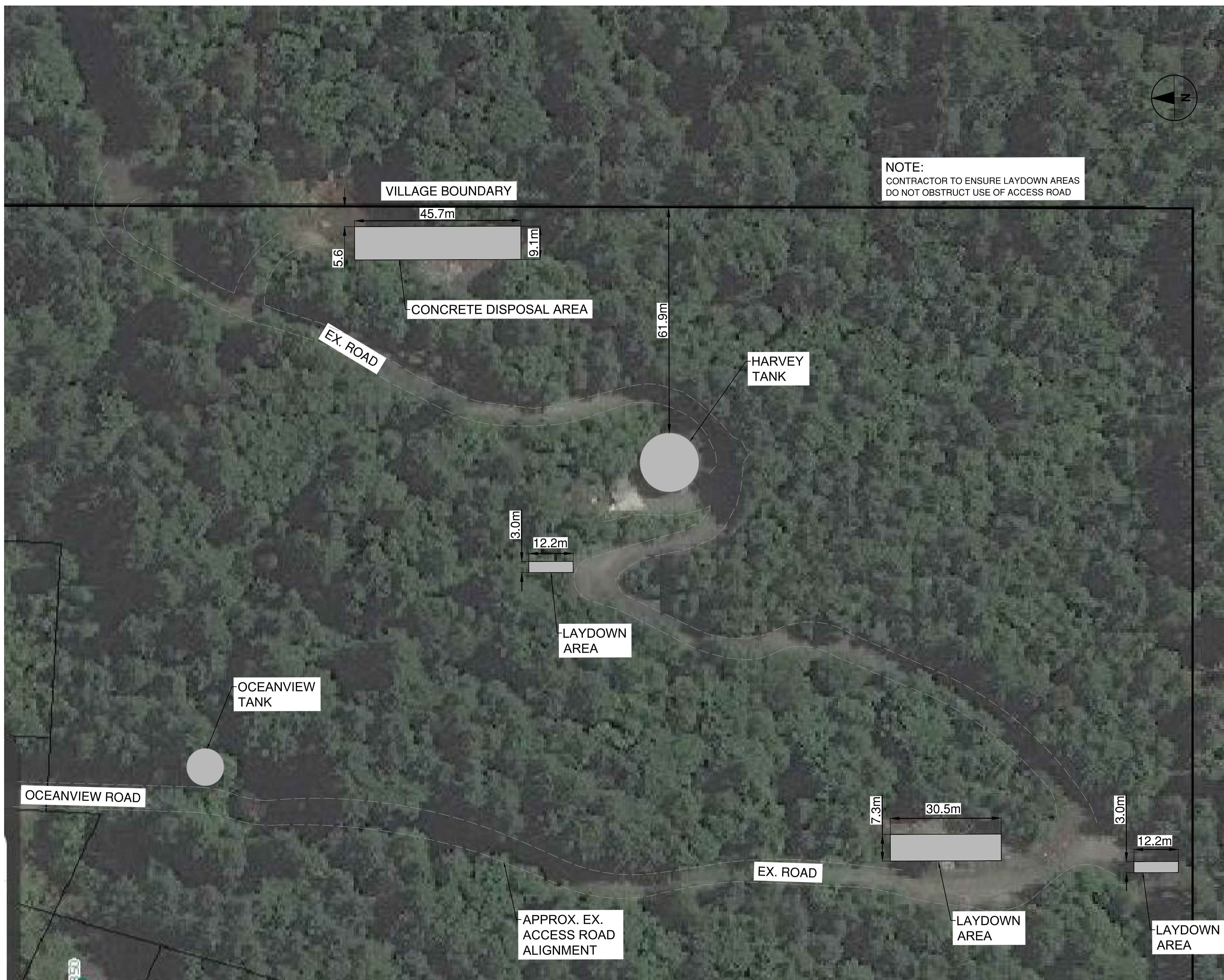
**KEY PLAN**

**PROJECT NUMBER**  
 60546407

**SHEET TITLE**  
 COVER SHEET

**SHEET NUMBER**  
 G-01-000

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**PROJECT**  
**HARVEY TANK  
 REPLACEMENT  
 PROJECT**

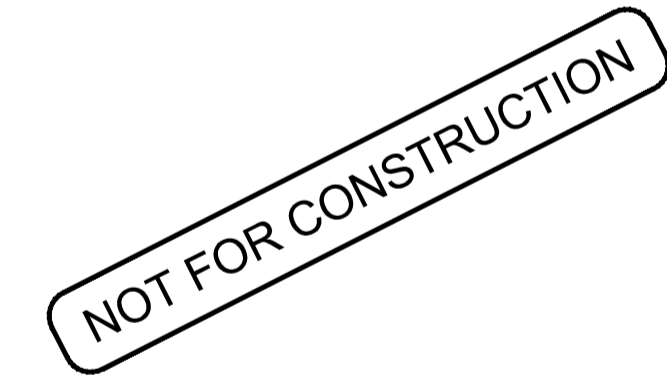
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**KEY PLAN**

**PROJECT NUMBER**

60546407

**SHEET TITLE**

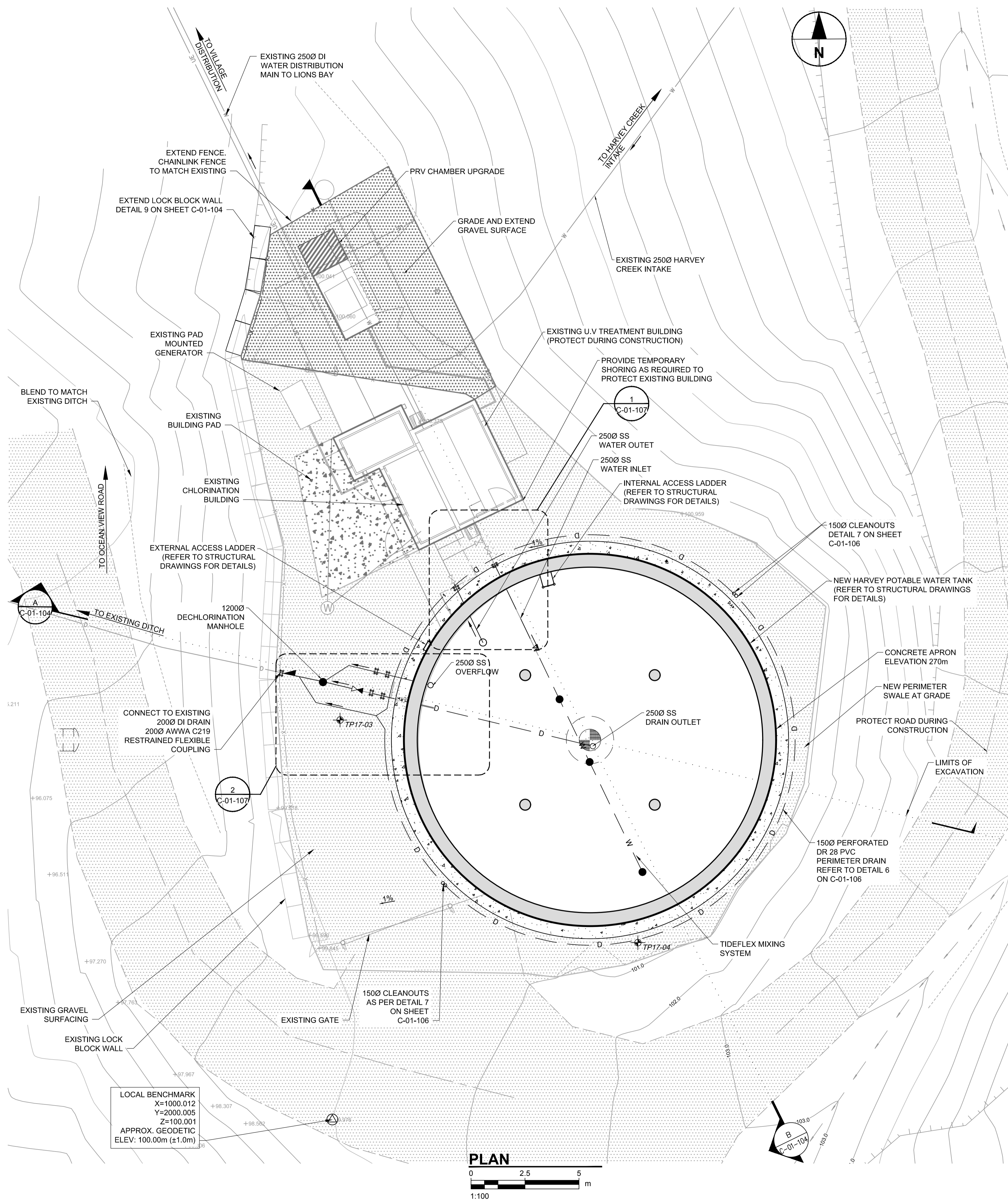
CONSTRUCTION LAYDOWN AREAS  
 SITE PLAN

**SHEET NUMBER**

G-01-002

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NOTE:

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CO-ORDINATE SYSTEM: LOCAL  
DATUM: LOCAL
2. TIDEFLEX MIXING SYSTEM CONSISTS OF THREE VARIABLE ORFICE INLET NOZZLES. A MINIMUM DRAW DOWN OF 1.0m IS REQUIRED DAILY IN ORDER TO ACHIEVE A COMPLETE MIXING ON THE FILL CYCLE. THE REPRESENTATIVE VOLUME OF THE DRAW DOWN IS 0.2 ML OR APPROXIMATELY 8.5% OF THE TOTAL STORAGE CAPACITY.



**PROJECT**  
**HARVEY TANK REPLACEMENT PROJECT**

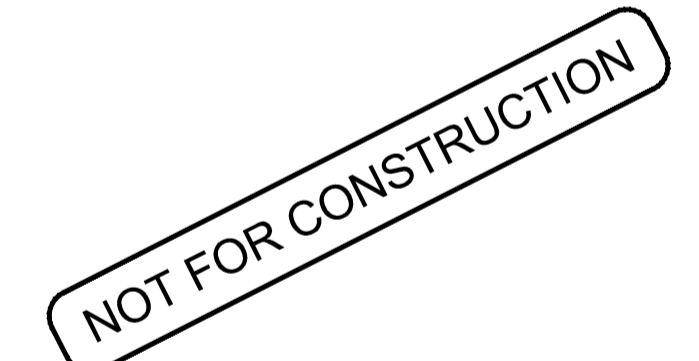
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**KEY PLAN**

**PROJECT NUMBER**

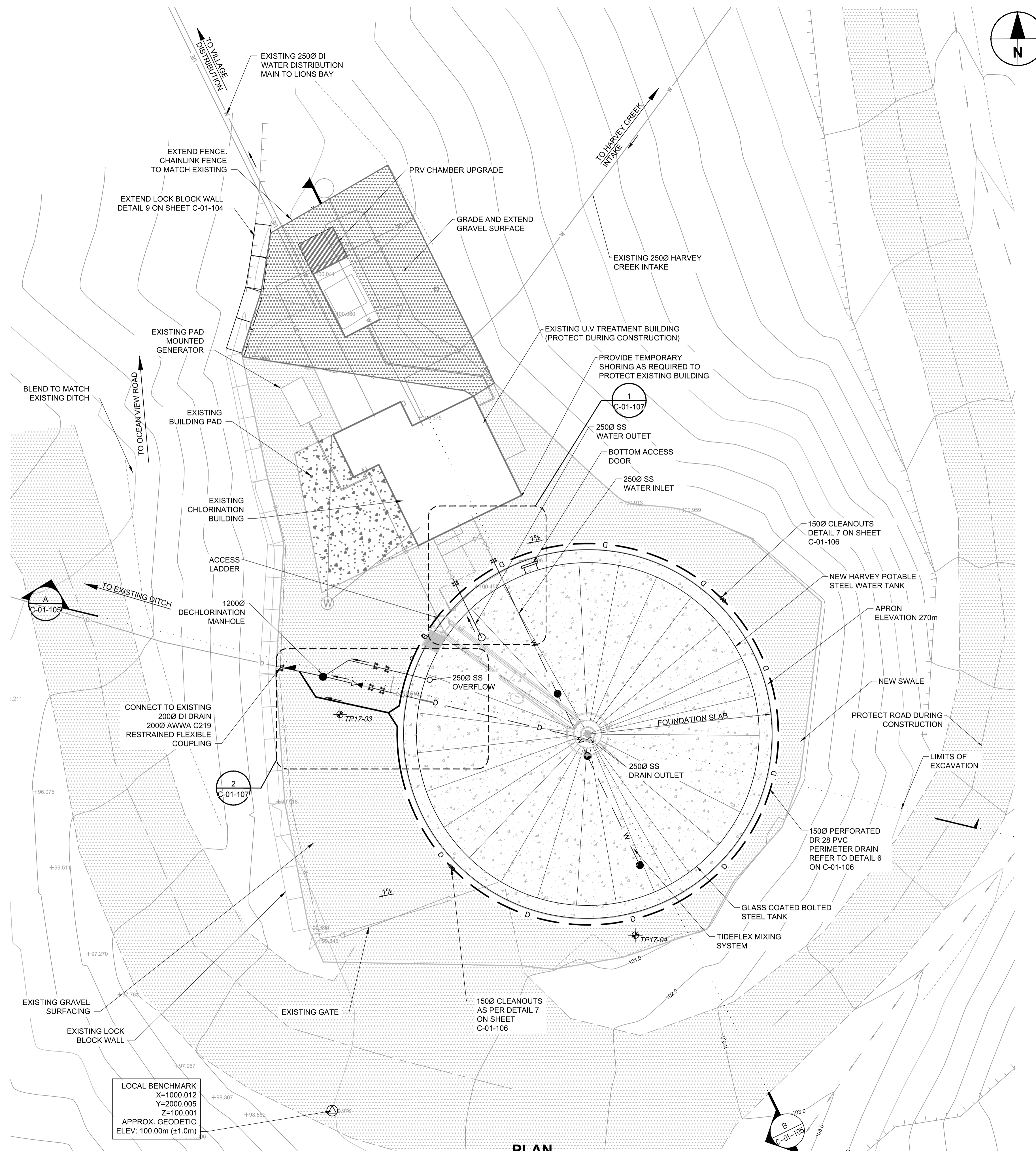
60546407

**SHEET TITLE**

HARVEY TANK - CONCRETE OPTION SITE PLAN

**SHEET NUMBER**

C-01-102



LOCAL BENCHMARK  
 X=1000.012  
 Y=2000.005  
 Z=100.001  
 APPROX. GEODETIC  
 ELEV: 100.00m (±1.0m)

**PLAN**  
 0 2.5 5  
 1:100 m

**NOTE:**

1. TOPOGRAPHIC SURVEY BY AECOM JUNE 20-21, 2017.  
CO-ORDINATE SYSTEM: LOCAL  
DATUM: LOCAL
2. TIDEFLEX MIXING SYSTEM CONSISTS OF THREE VARIABLE ORFICE INLET NOZZLES. A MINIMUM DRAW DOWN OF 1.0m IS REQUIRED DAILY IN ORDER TO ACHIEVE A COMPLETE MIXING ON THE FILL CYCLE. THE REPRESENTATIVE VOLUME OF THE DRAW DOWN IS 0.2 ML OR APPROXIMATELY 8.5% OF THE TOTAL STORAGE CAPACITY.



**PROJECT**  
**HARVEY TANK  
 REPLACEMENT  
 PROJECT**

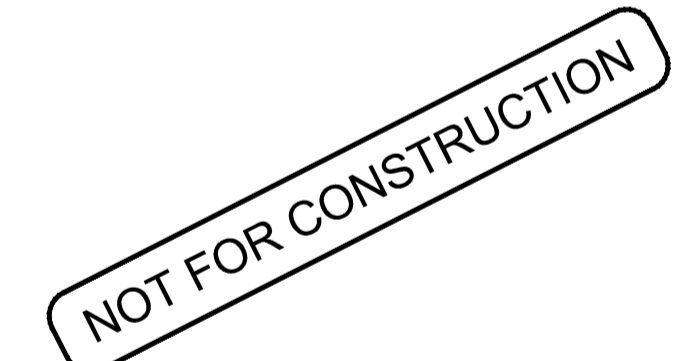
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**ISSUE/REVISION**

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**KEY PLAN**

**PROJECT NUMBER**

60546407

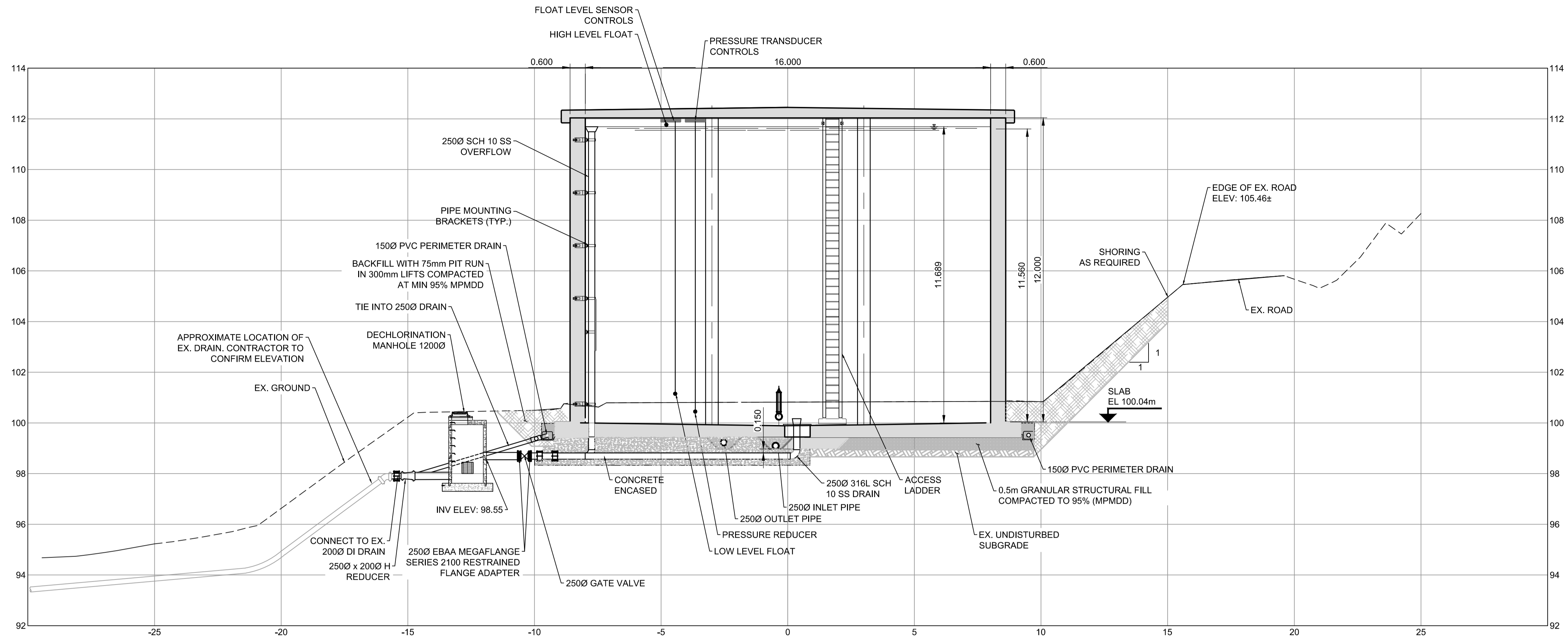
**SHEET TITLE**

HARVEY TANK - STEEL OPTION  
SITE PLAN

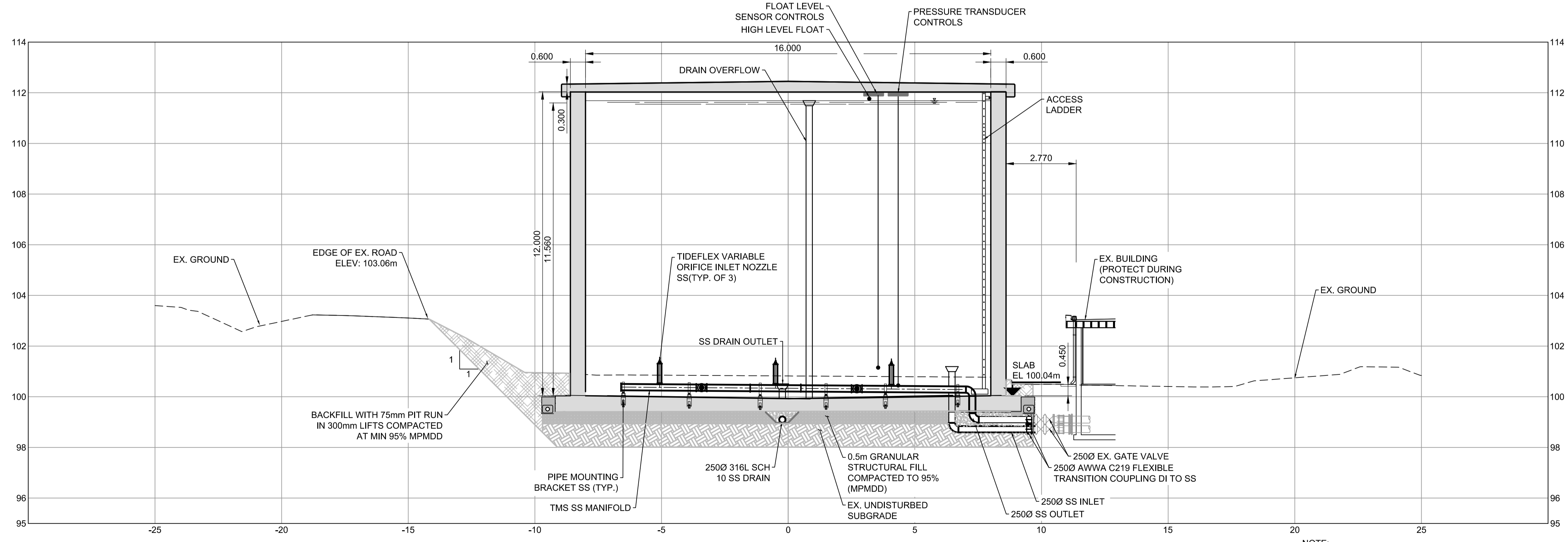
**SHEET NUMBER**

C-01-103

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**A SECTION**  
 C-102 Scale 1:100



**B SECTION**  
 C-102 Scale 1:100

- NOTE:**
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  - TIDFLEX MIXING SYSTEM CONSISTS OF THREE VARIABLE ORIFICE INLET NOZZLES. A MINIMUM DRAW DOWN OF 1.0m IS REQUIRED DAILY IN ORDER TO ACHIEVE A COMPLETE MIXING ON THE FILL CYCLE. THE REPRESENTATIVE VOLUME OF THE DRAW DOWN IS 0.2 ML OR APPROXIMATELY 8.5% OF THE TOTAL STORAGE CAPACITY.



**PROJECT**  
 HARVEY TANK  
 REPLACEMENT  
 PROJECT

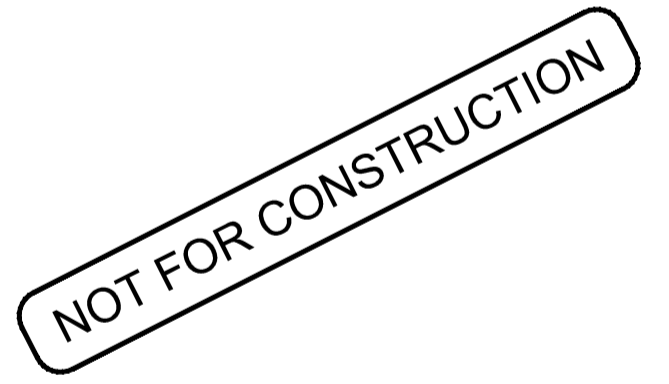
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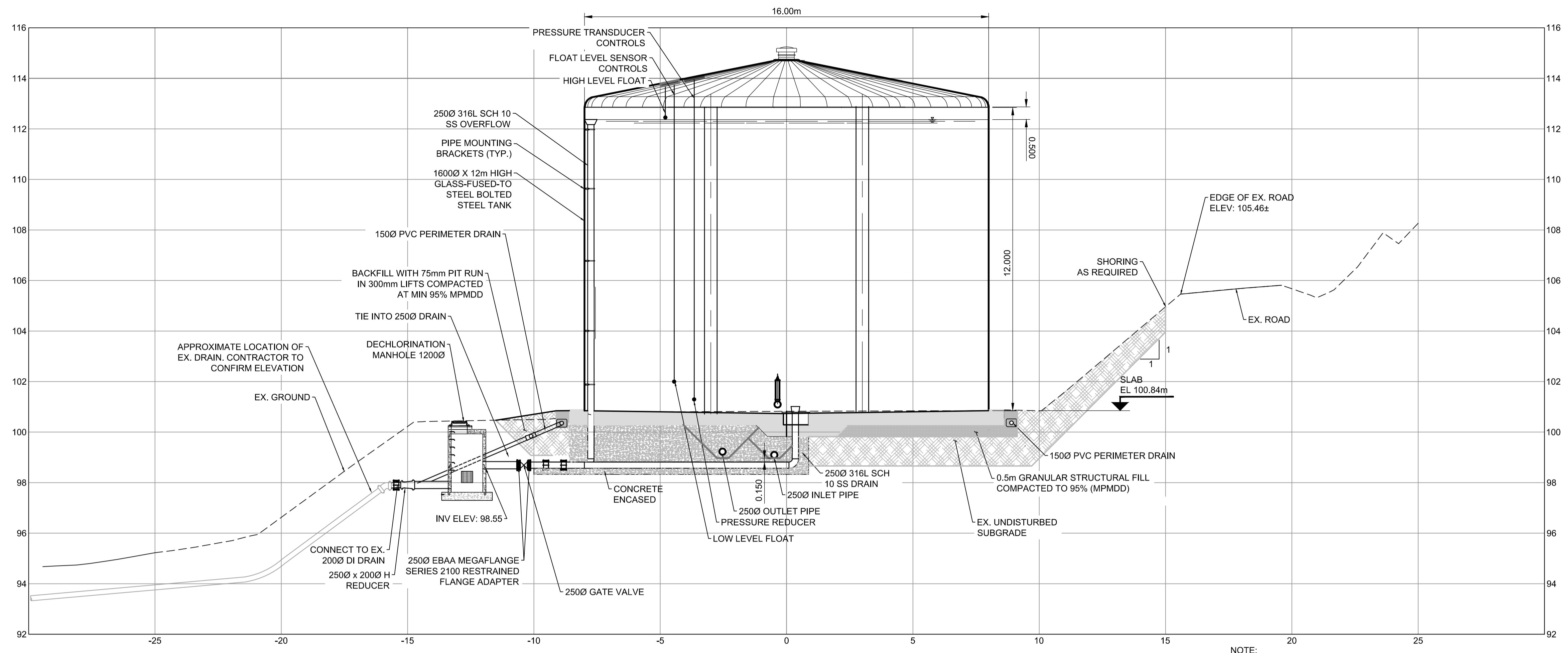
**KEY PLAN**

**PROJECT NUMBER**  
 60546407

**SHEET TITLE**  
 HARVEY TANK - CONCRETE OPTION  
 SECTIONS AND TYPICAL DETAILS

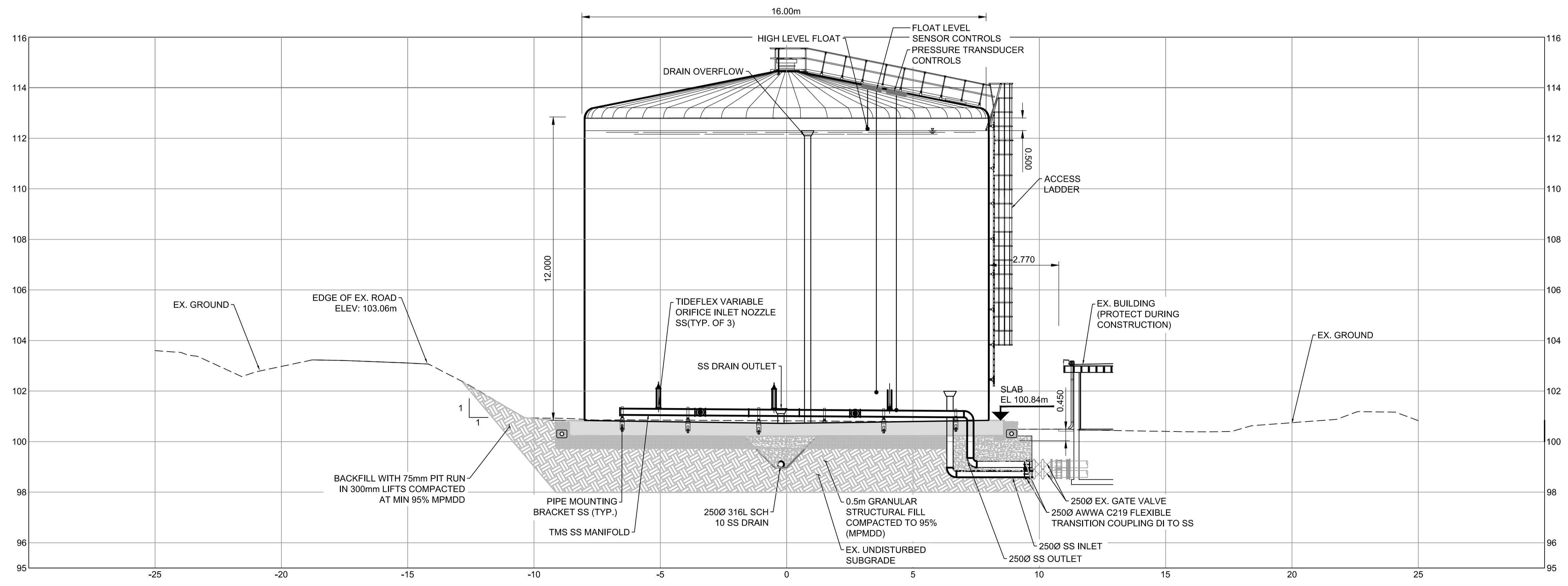
**SHEET NUMBER**  
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**A SECTION**  
 C-102 Scale 1:100

NOTE:  
 DETAILED DESIGN OF TANK AND PIPING, MOUNTING HARDWARE, FOUNDATION SLAB BETWEEN CONNECTION POINTS TO BE PROVIDED BY TANK SUPPLIER



**B SECTION**  
 C-102 Scale 1:100

- NOTE:
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**PROJECT**  
 HARVEY TANK  
 REPLACEMENT  
 PROJECT

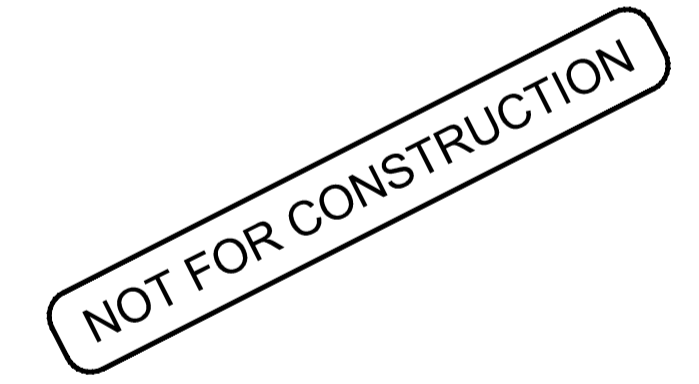
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**KEY PLAN**

**PROJECT NUMBER**  
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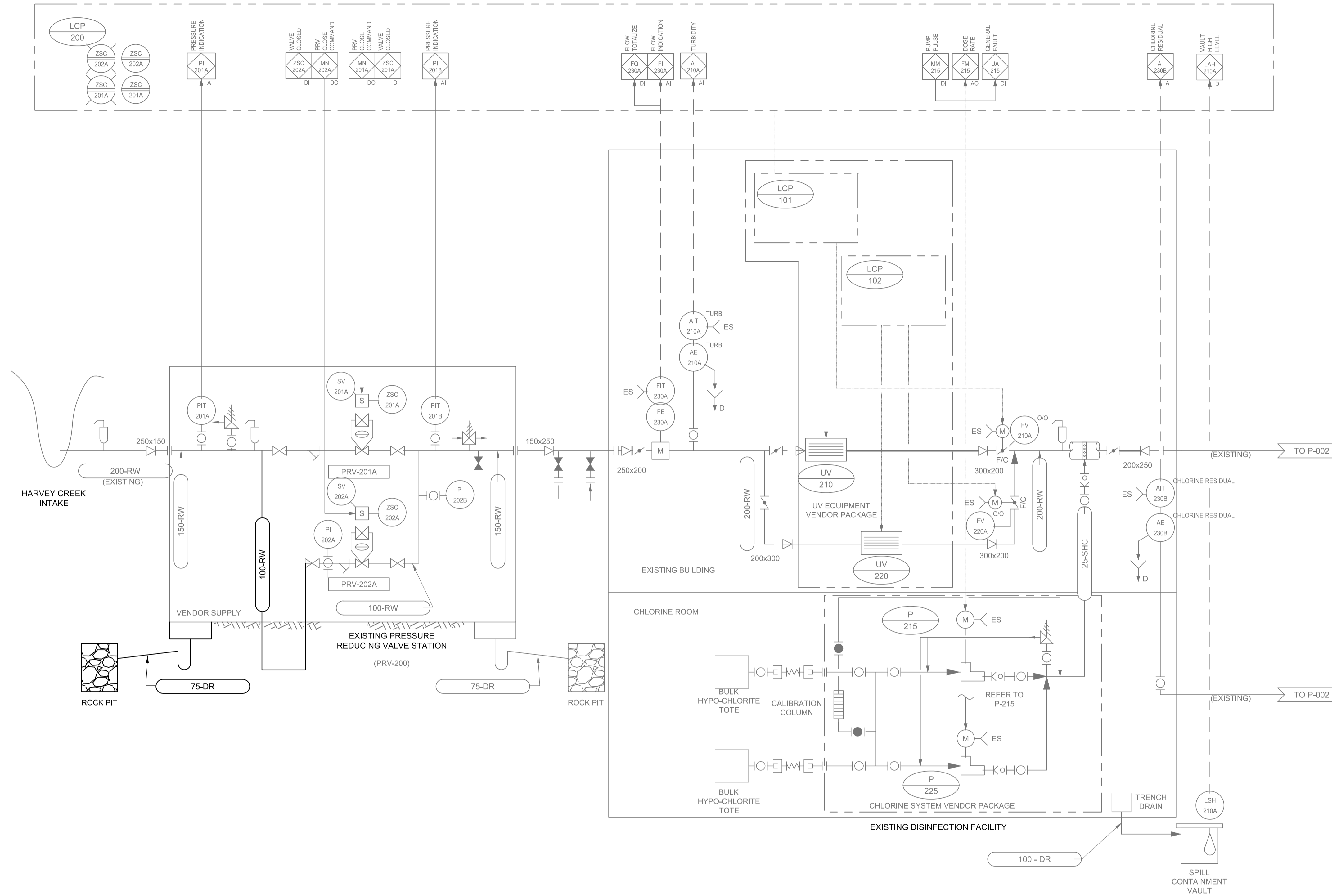
**SHEET TITLE**  
 HARVEY TANK - STEEL OPTION  
 SECTIONS AND TYPICAL DETAILS

**SHEET NUMBER**  
 C-01-105

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**PRESSURE REDUCING VALVE STATION**  
 EQUIP No. PRV-200  
 SPEC: 11300  
 TYPE: PRESSURE REDUCING  
 SIZE: 3.25ML/d (MAX. FLOW)



**PROJECT**  
**HARVEY TANK REPLACEMENT PROJECT**

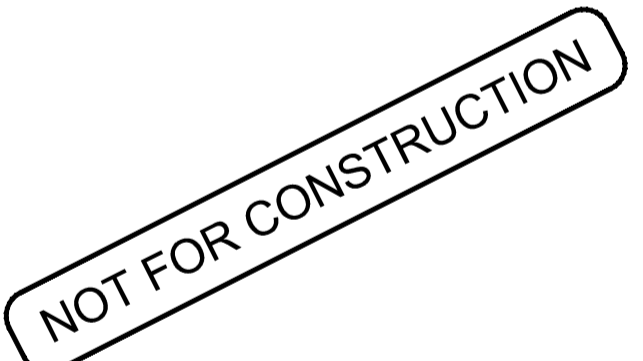
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**KEY PLAN**

**PROJECT NUMBER**

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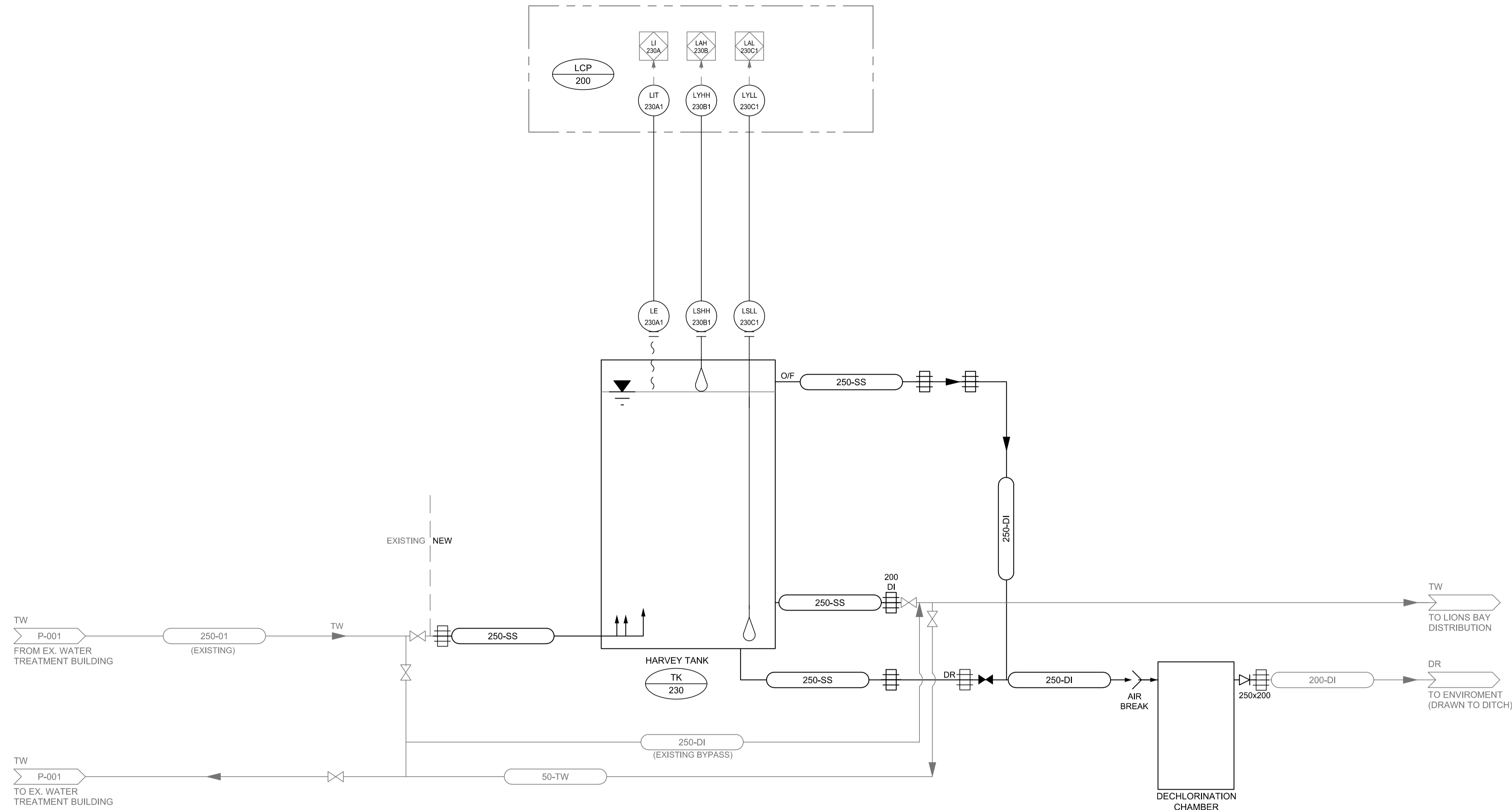
**SHEET TITLE**

EXISTING HARVEY PRV 200 AND DISINFECTION FACILITY PROCESS AND INSTRUMENTATION DIAGRAM

**SHEET NUMBER**

P-01-001

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**NOTE:**  
 LCP 200 IS LOCATED WITHIN EXISTING TREATMENT BUILDING.  
 REFER TO ELECTRICAL DRAWING



**PROJECT**  
**HARVEY TANK REPLACEMENT PROJECT**

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**KEY PLAN**

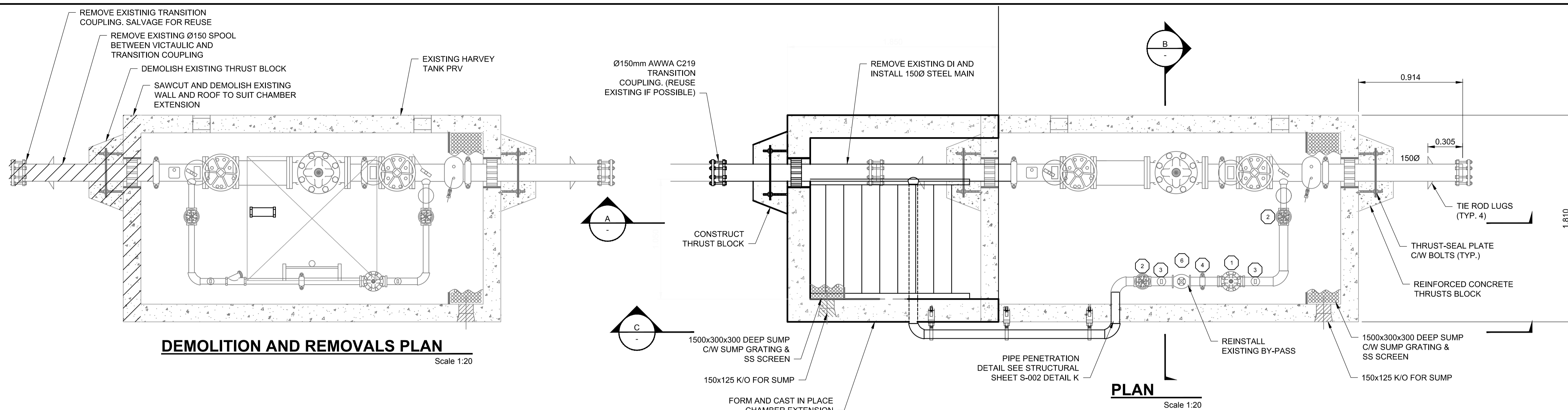
**PROJECT NUMBER**  
 60546407  
**SHEET TITLE**  
 HARVEY TANK PROCESS AND INSTRUMENTATION DIAGRAM  
**SHEET NUMBER**  
 P-01-002

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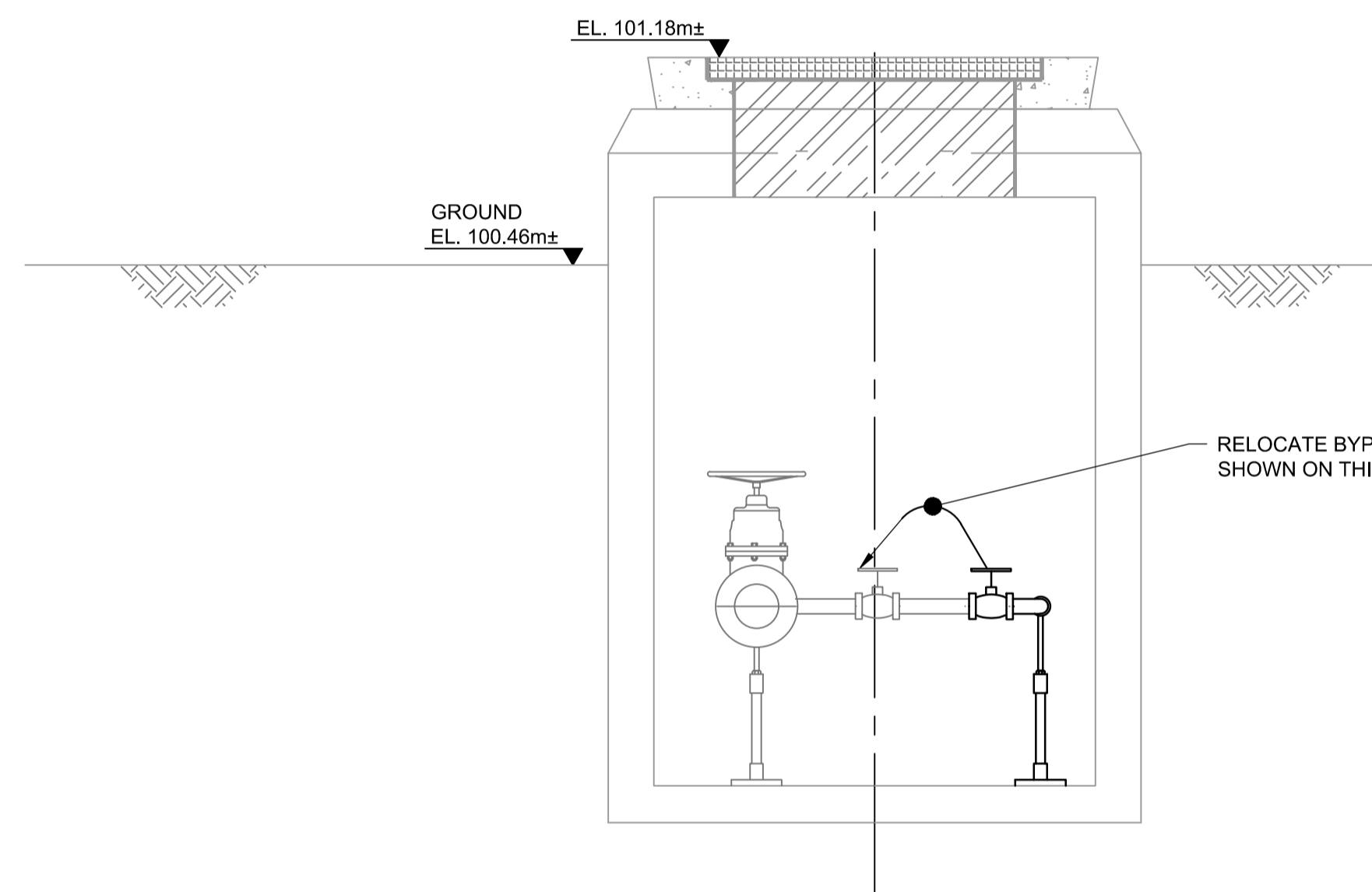
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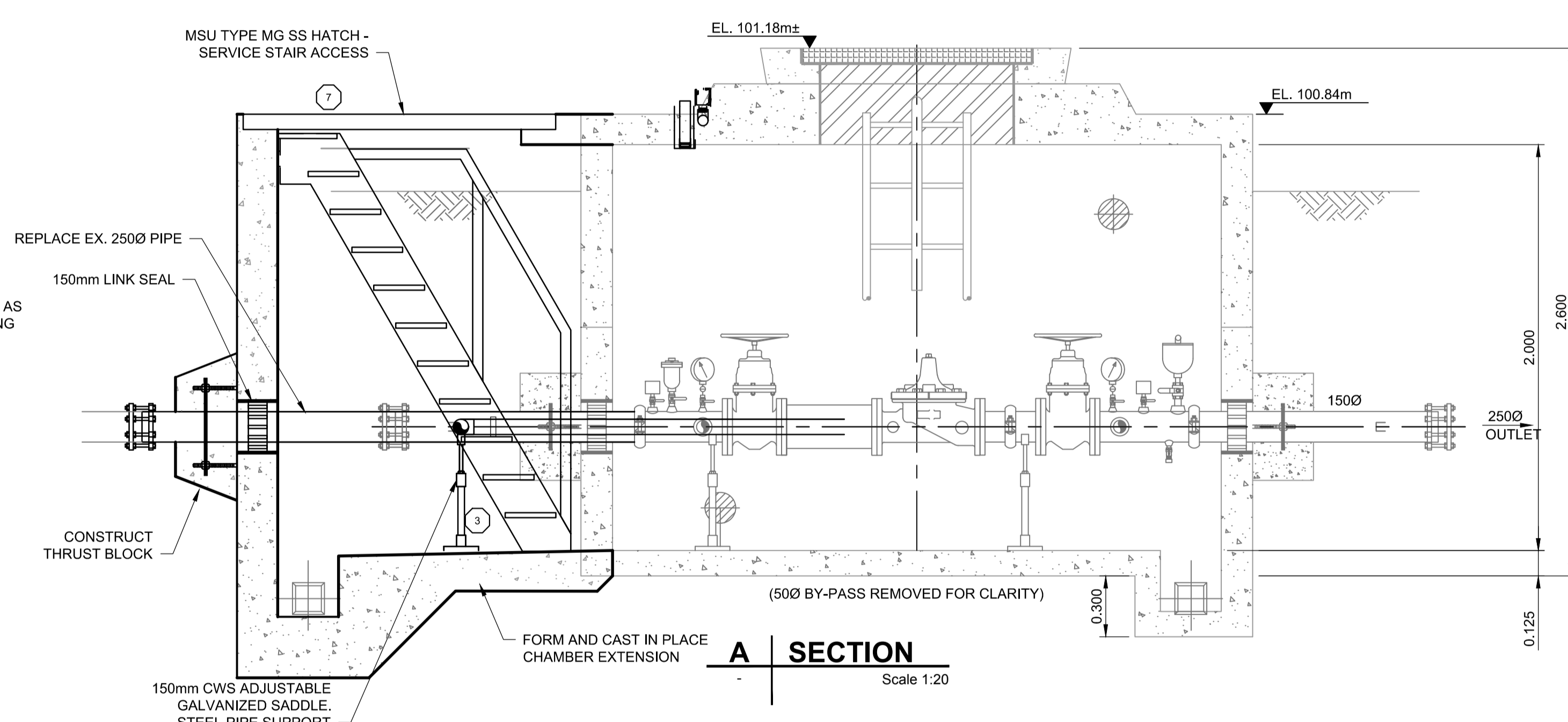


**DEMOLITION AND REMOVALS PLAN**  
Scale 1:20

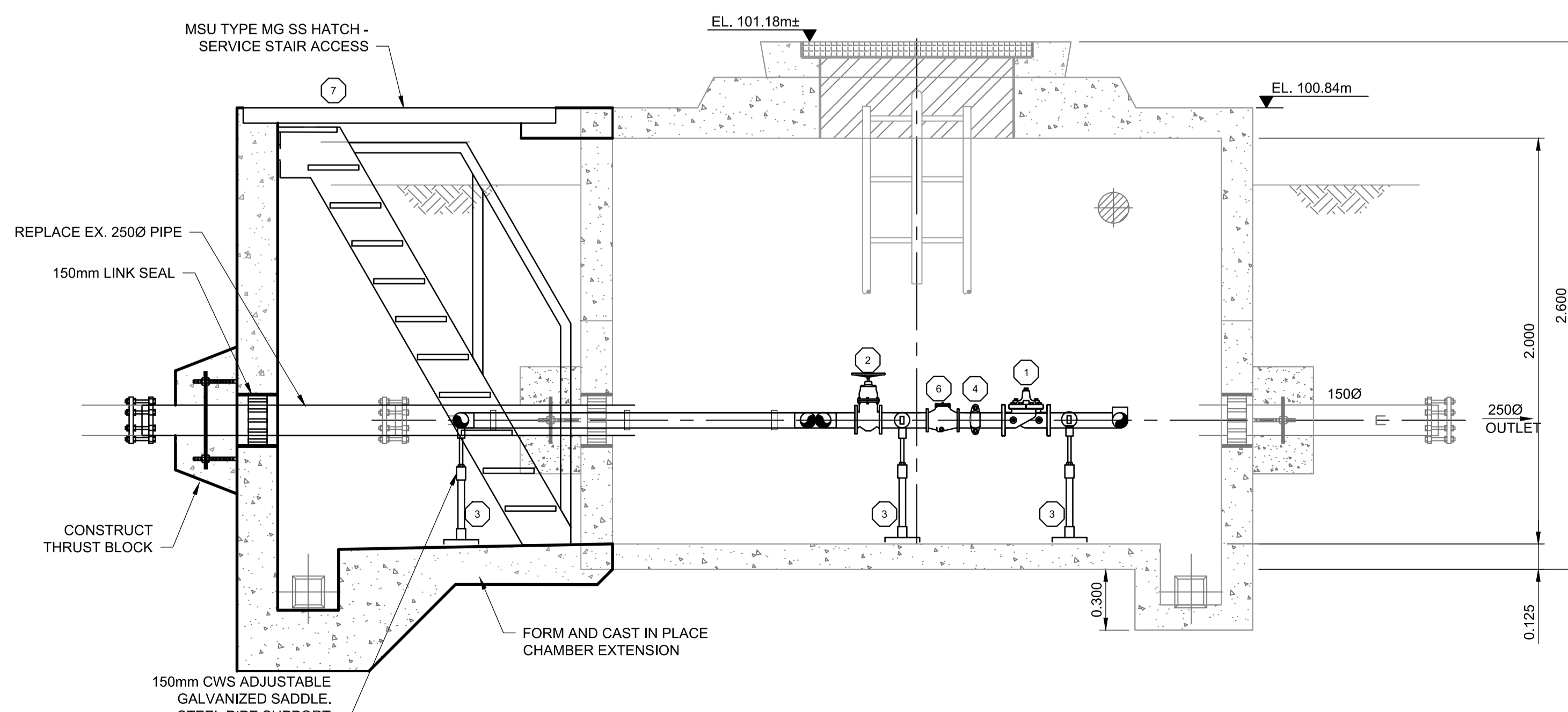
**PLAN**  
Scale 1:20



**B SECTION**  
Scale 1:20



**A SECTION**  
Scale 1:20



**C SECTION**  
Scale 1:20

MATERIALS LIST		
ITEM	QTY	DESCRIPTION
1	1	100 CLA-VAL 90 - 01 BSYKC PRESSURE REDUCING VALVE C/W CLOSE POSITION INDICATOR, 120V SOLENOID VALVE AND 120V AC CONTACTOR - THREADED
2	2	100 MUELLER A2360-6W41 NRS GATE VALVE C/W HANDWHEEL - THREADED
3	3	GALVANIZED STEEL ADJUSTABLE PIPE SUPPORTS
4	1	275 VICTAULIC #07 ZERO FLEX COUPLING
5	1	100 MUELLER 11m CAST IRON Y STRAINER C/W BLOWDOWN VALVE - THREADED
6	1	75mm "H" STRAINER W/ EPOXY COATING AND BLOWDOWN VALVES, CLA-VAL, SINGER OR APPROVED ALTERNATIVE
7	1	MSU TYPE MG SS HATCH AND SERVICE STAIR ACCESS

NOTES:

- ALL 75mm DIA. AND LARGER PIPE, INSIDE WETTED SURFACES TO BE SANDBLASTED, EPOXY LINED AND COATED TO AWWA C-210 AND NSF-61 SPECIFICATION. FINISH COATING WILL BE BLUE ENAMEL.
- FABRICATED STEEL PIPE AND FITTINGS TO BE SCHEDULE NO. 40 STEEL PIPE FOR SIZES TO 250mm DIA.
- LOADING: H2O STATIC LOAD RATES

**NOT FOR CONSTRUCTION**

# Appendix C

Harvey Creek Tank  
Inspection Report, Earth  
Tech, 11 Feb 2005



# VILLAGE OF LIONS BAY

## WATER RESERVOIR FIELD INSPECTION SHEET

## Harvey Creek Tank

<b>Current inspection</b>		<b>Inspector</b>		<b>Firm</b>		<b>Date (dmy)</b>	
Principle	✓ Monitoring	Eric de Fleuriot & Garth Begley		Earth Tech		9 Sep 2004 11 Feb 2005	
Last Principle inspection							
Last Monitoring inspection							
Reservoir type: Circular precast concrete post-tensioned tank constructed above ground (16 panels) Purpose: Drinking water Design volume: 400,000 Gals (1,514,160 litres) Dimensions: 55' dia. x 32.5' high (16.764 m dia. x 9.9 m high)				Built in: ≈1980 Air temperature: 16 °C Top of water level: 29' (8.84m) Date last cleaned: No records			



1. Tank	1.1 Walls				1.2 Roof				1.3 Wall Fdn				1.4 Floor				1.5 Column				1.6 Column foundation				1.7 Wall stability				1.8 Drain sump							
	R(%)				R(%)				R(%)				R(%)				R(%)				R(%)				R(%)											
Panels	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1	4	3	2	1
AP			1		50						2		E				E				N				E				E				E			
Panels	1.9 Guardrail				1.10 Access hatch				1.11				1.12 Miscellaneous				2. Joint bet. panels				2.1 Walls				2.2 Roof				2.3 Floor							
AP	5				20								X									55	40	5				100				100				

3. Auxiliary items	3.1 Check valve chamber				3.2 Valves				3.3 Inlet pipe				3.4 Outlet pipe				3.5 Overflow pipe				3.6 Drain pipe				3.7 Dechlor. chamber				3.8 Outlet structure			
	X				E				100				E				5				E						2		X			
	3.9 Rip-Rap at outlet				3.10 Equip cabinet box				3.11 Access road				3.12 Embankments				3.13 Access ladder				3.14 Roof vents				3.15 Level transducer				3.16 RTU Antenna			
X				X				20				E				5				E				N				X				

### REMEDIAL WORK ACTIVITY LIST

Item	Location	Activity description	Qty	Unit	U	Make safe	Comments	Rep Photo	Mon freq
2.1	IS	Seal & repair crack	155	m	1	Yes	Water was observed to be pouring out of joint between panels	45 - 47	
1.1		Spalled concrete - repair	0.003	m3	3		At top of wall caused by load from roof slab	55	
1.2		Power wash / clean	110	m2	R		50% of roof area	58	
2.2		Panel joint - repair	0.2	m3	3		Concrete filler section has fallen out from between precast concrete roof panels	59, 60	
1.3		Honeycombed concrete - repair	0.01	m3	M			43	2yrs
1.9		Bolts/nuts - re-galvanize	9	No	R		Apply Galvacon	60	
1.10		Wire brush & Power tool- paint	2	m2	R			57	
2.2		Seal & repair cracks	135	m	3			58, 142, 143	
3.11		Road surface - regrade	1	km	R		General maintenance required on road		
3.3		Wire brush & Power tool- paint	5	m2	R		10" dia. pipe	62	
3.7		Mounting bolts at injection water filler - replace	2	No	R			61	
3.7		Power wash / clean	20	m2	R		Algae growth on roof of dechlorination chamber	51	
2.3	IS	Seal & repair crack	50	m	1		New seal needed along circumference of tank at joint between wall and floor	148-153	
1.12	AS	Strengthen reservoir at base in horiz dir	1	LS	2		Provide ring beam at base of reservoir	48	
3.5	IS	Wire brush & Power tool- paint	1	m2	R		Corroded overflow pipe bracket supports	147	
3.13	IS	Wire brush & Power tool- paint	0.5	m2	R		Corroded bolts at attachment to wall	146	

Rating "R"	Structural integrity and safety of user	Functionality-secondary to Structural Integrity Does it perform as originally designed?	Maintenance priority and urgency of repair		Urgency "U"	
					Monitor	M
E	No defects	New condition - no defects	Not applicable		Routine	R
4	G	Acceptable, functioning as intended but maintenance required	Not required before next principle inspection		5yrs or >	4
3	F	Functioning as intended. Minor to more extensive rehab required to upgrade to new	. Preventative maintenance required within specified period		< 3 yrs	3
2	P	Unacceptable, not functioning as intended Minor to Major rehabilitation required	Work required within specified time period		< 2 yrs	2
1	V	Max relevancy	Immediate action. Collapse imminent		ASAP	1

N - Not accessible; X - Not applicable, % - percentage of element representing rating "R"

NP - North Wall Panel; NP1 - panel 1 on north face of reservoir; SP1-6; Panels 1 to 6 on south face of reservoir; RPi - Roof panel "i"; FPi - Floor panel "i"; WS - West Side; AS - All Sides; IS - Inside of tank; R - Roof; F - Floor



43. Honeycombing at wall foundation



44. Anchor blocks for post-tensioned cables. South side of tank adjacent to large vertical leak (Water loss 4 liters per minute)



45. Large leak at wall panel junction



46. Upper half of tank at leak seam



47. Close up of large leak



48. General view of anchor block adjacent to large leak



49. Eastern side of tank showing east side anchor blocks and further leaks

50. Leak at panel junction showing possible corrosion staining



51. General view of anchor blocks. Note algae growth on chlorination building roof

52. Note efflorescence at SE anchor block



53. "Closing in" section of concrete between two wall panels at North side of tanks

54. Horizontal and vertical cracks adjacent to north west anchor blocks



55. Spalling at top of wall – NW side



56. General view of concrete key locating roof concrete slab onto walls – NW side



57. Roof hatch and vent



58. Note concrete precast panels making up the roof structure



59. Concrete filler section has fallen out from between two precast concrete roof panels



60. Joint between precast concrete roof panels at access hatch



61. Mounting bolts corroded



62. General view of inlet pipe in chlorination chamber



63. General view of chlorination building



142. Underside of roof from inside of tank



143. Note water leaking through roof panel joints



144. 250 Φ bellmouth inlet drain



145. 200 pvc overflow pipe



146. Corroded bolt at access ladder support inside of tank



147. Access ladder and overflow pipe. Note corroded overflow pipe bracket supports



148. Rubberized type of coating material used along joint between the wall and base slab



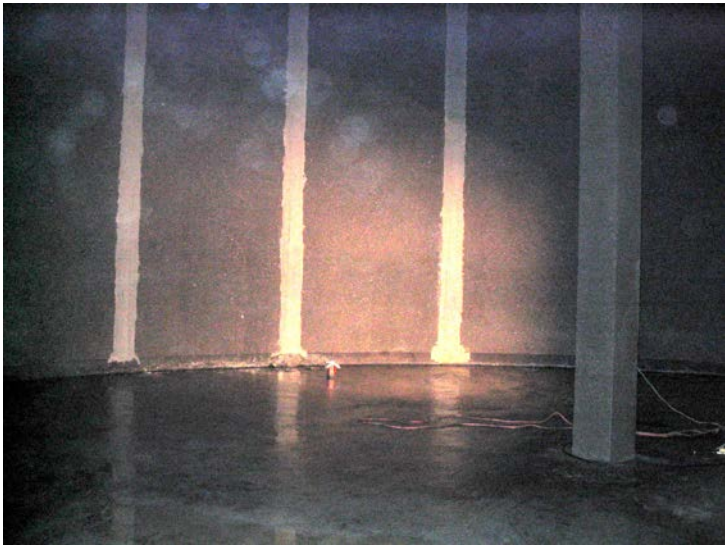
149. Evidence of failure (note air or water bubbles visible on the surface of the material) in the sealing material along joint between wall and base slab.



150. The rubberized material was easily pulled away from the wall and revealed vertical joints between wall panels. Water was seen to be leaking through this joint from the outside of the tank.



152. Evidence of general failure of sealing material along edge of wall and bottom slab and along the vertical joints in wall panels.



153. General view of inside of tank showing vertical and horizontal joints in tank wall