

**THE WESTERN CAPE NATURE CONSERVATION BOARD
T/A CAPENATURE**

**NEC4 ENGINEERING AND CONSTRUCTION SHORT CONTRACT (ECSC4)
16B – Delivery & Maintenance of Infrastructure
Template Version 1.05 – January 2022**

TENDER No : WCNCB 09/10/2024

PROJECT TITLE : PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

TENDER CLOSING : 11:00 AM on Monday 25 November 2024

<u>CLIENT</u>		<u>CLIENT'S REPRESENTATIVE</u>	
WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE		UHAMBISO CONSULT (PTY) LTD	
<u>PHYSICAL ADDRESS</u>	<u>POSTAL ADDRESS</u>	<u>PHYSICAL ADDRESS</u>	<u>POSTAL ADDRESS</u>
PGWC Shared Services Cnr Bosduif & Vostruis Str Bridgetown 7764	Private Bag X29 Gatesville 7766	Suite 102, Bateleur Park 133 Cradock Street GEORGE 6530	P.O. Box 2462 GEORGE 6530
Contact: Ramese Mathews Phone: 087 087 3175 Email: rmathews@capenature.co.za		Contact: Friedl Wahl Phone: 044 874 2380 Email: uhamgeo@uhambiso.co.za	

NOTE:

All returnable documents as listed on page 13 in this document, including the Form of Offer C1.1 on page 45 must be completed in full and signed. The entire document, from page 1 through 95 must be submitted with your bid. Non-Compliance will render your tender invalid.

Name of Tenderer:

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE**PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM**

IMPORTANT NOTICE: Please DO NOT disassemble or dismember this document. DO NOT insert any attached pages to returnable schedules within the page sequence of the document. All additional pages must be attached AFTER the last page of the document and clearly marked to which returnable schedule they belong.

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**THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM**

T1.1 Tender notice and invitation to tender

The Western Cape Nature Conservation Board T/A CapeNature, invites tenders for Tender No. WCNCB 09/10/2024: **PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM.**

It is estimated that tenderers should have a CIDB contractor grading designation of **3CE or 3CE PE or higher.**

Preferences are allocated to tenderers for Broad-Based Black Economic Empowerment (B-BBEE) status level of contribution.

Documents will be available after **08:00** from **Monday 28 October 2024.**

Tender documents are available for download from the eTender Portal of National Treasury, at <https://www.etenders.gov.za>, and are free of charge.

Documents issued in electronic format must be requested by sending an email to tenders@capenature.co.za stating a return email address, the tender number, name of requesting entity, CSD registration number and CIDB registration number (if applicable) of the entity. It is the tenderer's responsibility to ensure that it obtains all the necessary documents/electronic files required for submission of a complete tender. Documents electronically issued via email are free of charge.

The physical address for collection of hardcopy tender documents is:

Western Cape Nature Conservation Board T/A CapeNature

PGWC Shared Service Centre, 3rd Floor, cnr Bosduif & Vostruis Str, Bridgetown, Gatesville.

Hard copy tender documents are available at no charge.

Queries relating to the technical specification of these documents may be addressed to:

Name:	Friedl Wahl
Phone:	044 874 2380
Email:	uhamgeo@uhambiso.co.za

The closing time for receipt of tenders is **11:00 AM 11:00 AM on Monday 25 November 2024** Facsimile, copied and late tenders will not be accepted.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

A compulsory site/clarification meeting with representatives of the *Client* will take place at:

Location: Robberg Nature Reserve

Date: 13 November 2024

Starting Time: 12:00 PM

Supplier Database Registration

All **prospective** Service Providers **must** be registered on:

- a) The Central Supplier Database (**CSD**), and
- b) The Western Cape Supplier Evidence Bank (**WCSEB**)

All prospective Service Providers who are not registered on the CSD are requested to self-register via www.csd.gov.za. Should assistance be required for the registration on the WCSEB you may contact the help centre at 021 833 5361 or an email can be directed to wcseb@westerncape.gov.za.

All Service Providers duly registered on the WCSEB are also requested to annually update their WCBD4, Declaration of Interest as well as their B-BBEE Rating Certificate or Sworn Affidavit in their original formats to the address below (copies, faxed or emailed copies will not be accepted):

**Provincial Treasury, 4 Waterford Place, 2nd Floor, Century City, Cape Town, or
Private Bag X9165, Cape Town, 8000**

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
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T1.2 Tender Data

The Conditions of Tender are the **Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Engineering and Construction Works Contracts, August 2019**, as per Board Notice 136 of 2015 in Government Gazette 38960 of 10 July 2015 and any erratum notices issued thereafter (see www.cidb.org.za).

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this bid. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard Conditions of Tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

Clause	Tender Data
C.1	General
C.1	In this document " <i>Client</i> " means the "employer" as referenced in the Standard Conditions of Tender, and the terms may be used interchangeably in this document. The <i>Client</i> is Western Cape Nature Conservation Board T/A CapeNature.
C.1.2	Tender Documents The Tender Document (this document), issued by the <i>Client</i> and comprising the following parts: Part T: The Tender Part T1: Tendering Procedures T1.1 Tender notice and invitation to tender T1.2 Tender Data Part T2: Returnable Documents T2.1 List of returnable documents T2.2 Returnable schedules Part C: The Contract Part C1: Agreement and Contract Data C1.1 Form of Offer and Acceptance C1.2 Contract Data: Contract Data Part One: Data provided by the <i>Client</i> Contract Data Part Two: Data provided by the <i>Contractor</i> Part C2: Pricing Data C2.1 Pricing assumptions & instructions C2.2 Pricing schedule Part C3: Scope of Work Part C4: Site information Appendix: Drawings, schematics & annexures This tender document must be completed in black ink and contains the "returnable documents" which must be completed in terms of submitting a tender offer.

Clause	Tender Data														
C.1.4	<p>The <i>Client's</i> Agent is:</p> <table border="1"> <tr> <td>Name:</td> <td>Uhambiso Consult</td> </tr> <tr> <td>Address Line 1</td> <td>Suite 102, Bateleur Park</td> </tr> <tr> <td>Address Line 2</td> <td>133 Cradock Street</td> </tr> <tr> <td>Address Line 3</td> <td>GEORGE</td> </tr> <tr> <td>Postal Code:</td> <td>6530</td> </tr> <tr> <td>Contact no:</td> <td>044 874 2380</td> </tr> <tr> <td>Email address:*</td> <td>uhamgeo@uhambiso.co.za</td> </tr> </table> <p>* Address for electronic communications</p>	Name:	Uhambiso Consult	Address Line 1	Suite 102, Bateleur Park	Address Line 2	133 Cradock Street	Address Line 3	GEORGE	Postal Code:	6530	Contact no:	044 874 2380	Email address:*	uhamgeo@uhambiso.co.za
Name:	Uhambiso Consult														
Address Line 1	Suite 102, Bateleur Park														
Address Line 2	133 Cradock Street														
Address Line 3	GEORGE														
Postal Code:	6530														
Contact no:	044 874 2380														
Email address:*	uhamgeo@uhambiso.co.za														
C.2	Tenderer's obligations														
C.2.1	<p>Only those tenderers who are registered with the CIDB and whose registrations are active at close of tender and who satisfy the grading requirement of a CIDB grading of a 3CE or 3CE PE or higher, as calculated in terms of the CIDB regulations, are eligible to have their tenders evaluated.</p>														
C.2.7.1	<p>A compulsory site/clarification meeting with representatives of the <i>Client</i> will take place at:</p> <p>Location: Robberg Nature Reserve Date: 13 November 2024 Starting Time: 12:00 PM</p> <p>THE FOLLOWING CONDITIONS APPLY:</p> <ul style="list-style-type: none"> (a) A tender will automatically be disqualified if the meeting is not attended by a representative of the tendering entity. (b) Representatives of tendering entities must complete and sign the meeting attendance register, providing full details as required on the register, failure of which will disqualify the tender. (c) The name of the lead entity in an envisaged consortium/joint venture must appear on the attendance register, failure of which will disqualify a tender submitted by the consortium/joint venture. (d) A representative may not attend the meeting on behalf of more than one tendering entity. This constitutes anti-competitive behaviour, and when multiple tenders are submitted which reference the attendance of the same person at the site/clarification meeting, ALL those tenders will be disqualified. (e) Tendering entities must be represented by a person who is suitably qualified and experienced to comprehend the implications of the tender. (f) The chairperson may delay the start of the meeting at his sole discretion, as dictated by circumstances. After official start of the meeting by the chairperson, late arrivals will be allowed to join the meeting but the chairperson is under no obligation to repeat any information conveyed prior to such late arrivals. (g) Recorded minutes as well as addenda or any other information, where applicable, will be issued to all whom attended the meeting. (h) Requests for additional information can be directed to the <i>Client's</i> representative via email, not later than one week prior to tender closing. Requests received after the cut-off date will not be responded to. The response to requests for clarification or additional information will be disseminated among all tenderers who attended the meeting. (i) Information provided to tenderers at the clarification meeting or thereafter and which is recorded in the <i>Client's</i> minutes of the meeting or other documentation issued, forms part of the Conditions of Tender. Failure to comply with such conditions may disqualify the tender. Addenda issued (if any) MUST be included in the tender submission, failure of which will disqualify the tender. If the tenderer claims that 														

Clause	Tender Data
	<p>addenda were not received but the <i>Client</i> can prove transmission thereof to the email address as provided by the tenderer, the submitted offer will be rejected.</p>
C.2.11	<p>PLEASE NOTE: No alterations/corrections to inserted information in the document (including pricing) may be performed by erasing or using masking fluid ("Tipp-Ex" or similar) on any submitted page. Alterations/corrections to inserted information may only be performed as follows:</p> <ul style="list-style-type: none"> (a) Strike a line through the incorrect information, write the corrected information as appropriate (under, above or next to the information to be corrected), and initial at every incidence of alteration/correction. (b) In the case of access to a digital copy of the tender document (PDF), simply reprint the page, enter the information on the reprinted page and substitute in the document before submission. <p>Tender submissions with alterations/corrections not in compliance with the requirements as described above, will be rejected.</p>
C.2.12.1	<p>No alternative tender offers will be considered.</p>
C.2.13.2	<p>PLEASE NOTE: The complete tender document comprising pages 1 through 95 must be returned to the Client when submitting a tender offer. If the pricing schedule or parts thereof are contained in the Appendix to this document, the duly completed pricing schedule or parts thereof must be returned with the tender document. Failure to do so will invalidate the tender. Other drawings, schematics or annexures in the Appendix need NOT be returned with the tender offer, unless there are specific instructions for a specific item to be returned, or if the tenderer wishes to utilise any item for clarification purposes when submitting an alternative tender offer, when applicable.</p>
C.2.13.4	<p>The tender shall be signed by a person duly authorised to do so.</p> <p>Tenders submitted by joint ventures of two or more entities shall be accompanied by the document of formation of the joint venture, authenticated by a notary public or other official deputed to witness sworn statements, in which is defined precisely the conditions under which the joint venture will function, its period of duration, the persons authorised to represent and obligate it, the participation of the several entities forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. The document of formation of the joint venture shall state explicitly what the percentage participation in the joint venture will be of each entity involved.</p> <p>It is a specific condition of this tender that the lead entity of a joint venture shall have the highest CIDB grading of all entities comprising the joint venture, and that the lowest CIDB grading of any entity in the joint venture shall be no more than two grades below the highest. Correspondingly, the value of the percentage of work executed by each entity shall not exceed 20% of the maximum of its designated CIDB grading value range.</p>
C.2.13.6	<p>A two-envelope procedure will not be followed.</p>
C.2.13.7	<p>The <i>Client's</i> address for delivery of tender offers and identification details to be shown on each tender offer package are:</p> <p>Location of tender box: 3rd Floor, PGWC Shared Services Centre Cnr Bosduif and Volstruis Street Bridgetown</p> <p>Identification details: Tender No: WCNCB 09/10/2024</p>

Clause	Tender Data
	<p>Tender offers couriered to the <i>Client</i> must be delivered to the following address: Western Cape Nature Conservation Board T/A CapeNature 3rd Floor, PGWC Shared Services Centre Cnr Bosduif and Volstruis Street Bridgetown</p> <p>The tender box is open during office hours only. Monday to Friday between 7:30 and 16:30.</p> <p>Electronic bids will be accepted (preferable) and must be sent to tenders@capenature.co.za before stipulated date and time of closure.</p>
C.2.14	<p>The <i>Client</i> requires tenderers to return a fully priced pricing schedule with the tender submission. ALL items in the pricing schedule MUST be priced. Please note the following:</p> <ol style="list-style-type: none"> Tenders showing a pattern of unpriced items in the pricing schedule, will be disqualified. Summarising parts or sections of the pricing schedule into single lump sums or rates without providing the breakdown of pricing of items as per the pricing schedule, is not acceptable and will disqualify the tender. Where an item is encountered against which no Price or rate is entered and it can be reasonably attributed to accidental omission on the part of the tenderer, that item will be treated as covered by other Prices or rates in the pricing schedule.
C.2.15	<p>The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender. Facsimile, e-mail, copied and late tenders will not be accepted.</p>
C.2.16	<p>The tender offer validity period is approximately 12 weeks, expiring on 17 February 2025. The <i>Client</i> reserves the right to extend the validity period for any additional period if deemed in the interest of the <i>Client</i>.</p>
C.3	The Client's undertakings
C.3.4.1	<p>The time and location for opening of the tender offers is:</p> <p>Time: 11:00 AM on Monday 25 November 2024</p> <p>Location: CapeNature 3rd Floor, PGWC Shared Service Centre Cnr. Bosduif and Volstruis Str. Bridgetown Gatesville</p> <p>Tenders will be opened immediately after the closing time and the results will be made available upon request to tenderers within 10 working days after opening.</p>
C.3.8.1	<p>Test for responsiveness: Tenders will be considered non-responsive if:</p> <ul style="list-style-type: none"> - the tender is not in compliance with the requirements of the Conditions of Tender; - the tender has not been properly and fully completed and signed, - the tender is not responsive to the other requirements of the tender document/s including the specifications; - the tenderer has not provided proof of tax compliance either via an attached printout of a Central Supplier Database (CSD) tax compliance verification report dated no

Clause	Tender Data
C.3.9.2	<p>more than one week prior to tender closing, or by attaching written proof by SARS of approved arrangements in terms of the tenderer's tax clearance;</p> <ul style="list-style-type: none"> - the tenderer has failed to clarify or submit any supporting documentation within seven days of being requested to do so by the <i>Client</i> in writing. <p>Arithmetical errors and discrepancies:</p> <ul style="list-style-type: none"> - If pricing for the tender is a lump sum offer without a breakdown of rates and prices in a pricing schedule and there is a discrepancy between the amount in words and the amount in figures, the amount in words shall govern. - If a pricing schedule in the form of a bill of quantities, a price list, activity schedule or other format applies, the <i>Client</i> shall check all substantively responsive tenders for errors and discrepancies in the pricing schedule and offer form, and correct such errors and discrepancies in the following manner: <ul style="list-style-type: none"> o Where there is a discrepancy between the unit rate and the total price for any line item that is obtained by multiplying the unit rate and the quantity stated for that line item, the unit rate shall prevail and the total price for that line item shall be corrected, unless in the opinion of the <i>Client</i> there is an obvious misplacement of the decimal point in the unit rate, in which case the total price for that line item shall prevail and the unit rate shall be corrected. o Where there is an error in the total of the prices either as a result of corrections made in accordance with the above or in the tenderer's addition of prices, the total of the prices shall be corrected. o Where there is a discrepancy between the total of the prices in the pricing schedule and the total tender amount, or a discrepancy between the total amount in words and the total amount in figures, the amount corresponding to the correct total of the prices in the pricing schedule shall prevail and the others corrected. - Tenderers shall be notified by the <i>Client</i> of corrections made in accordance with C.3.9.2 and requested to accept the corrections including, where applicable, a corrected total tender offer. If the tenderer fails to accept the corrections so notified within a stated period after receipt of the <i>Client's</i> request to do so, the tender will be rejected. - If corrections made in accordance with C.3.9.2 results in a change in the total tender amount of any of the tenderers, all substantively responsive tenderers shall be notified of the corrected amounts by the <i>Client</i>, to ensure transparency of the correction process. <p>If local content provisions apply to this tender, the arithmetical error checking process will include arithmetic checking of Local Content percentage as well.</p>
C.3.11	<p>The procedure for the evaluation of responsive tenders is Method 1 (Price and Preference)</p> <p>Price will be scored using the Formula $P_s = 80(1 - ((P_t - P_{min})/P_{min}))$ where:</p> <ol style="list-style-type: none"> 1. P_s is the number of points scored for comparative price of tender under consideration; 2. P_{min} is the comparative price of the lowest acceptable tender offer; 3. P_t is the comparative price of tender offer under consideration. <p>Preference will be scored as follows:</p> <p>Up to 20 tender evaluation points will be awarded to tenderers who complete the preferencing schedule and who are found to be eligible for the preference claimed. The maximum attainable combined score for price and preference is 80+20=100 points.</p>
C.3.13.1	<p>Tender offers will only be considered if all the requirements as stated in the Conditions of Tender and Tender Data are complied with. Specific emphasis is placed on the following criteria for responsiveness:</p> <ol style="list-style-type: none"> 1. the tenderer is registered on the Western Cape Supplier Evidence Bank (WCSEB) by close of tender. If the tenderer's status is indicated as suspended on the WCSEB due to expiry of its declaration form WCBD4 on file, the duly completed WCBD4 form

Clause	Tender Data
	<p>(Returnable Schedule 4) included in this document will serve as the updated form to enable responsiveness;</p> <ol style="list-style-type: none">2. the tenderer is registered on the Central Supplier Database (CSD) by close of tender;3. the tenderer must be shown to be tax compliant either via an attached printout of a CSD tax compliance verification report dated no more than one week prior to tender closing, or by attaching written proof by SARS of approved arrangements in terms of the tenderer's tax clearance;4. the tenderer is registered with the Construction Industry Development Board (CIDB) in the appropriate contractor grading designation (if applicable) stated in this Tender Data by close of tender;5. the tenderer submits this complete tender document from page 1 to page 96 inclusive, with all returnable schedules duly completed and priced as per the instructions pertaining to each schedule and section, and requirements stated in this Tender Data at the close of tender;6. the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;7. the tenderer has not:<ul style="list-style-type: none">- abused the <i>Client's</i> Supply Chain Management System, evidence of which can be clearly demonstrated by the <i>Client</i>;- failed to complete any previous contract due to the tenderer's own fault for any organ of state within the last 2 years;- submitted more than one offer (including participation in joint venture arrangements with others), and8. has completed inter alia the Compulsory Enterprise Questionnaire and the Declaration of Interests (WCBD4), meets the local content minimum thresholds (if applicable) and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the <i>Client</i> or potentially compromise the tender process.

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T2.1 List of returnable documents

IMPORTANT: The tenderer must complete all returnable schedules. Use the "Check" column to tick completion of each returnable schedule as a verification procedure to ensure all schedules are duly completed. Please see instructions for completion of returnable schedules under heading T2.2 following on the next page.

1. Returnable schedules required for tender evaluation and contracting purposes

Schedule No	Schedule Description & Location	Check
Tender Schedules:		
1	Tender offer signature and authority of signatory Page 15	<input type="checkbox"/>
2	Compulsory Enterprise Questionnaire Page 21	<input type="checkbox"/>
3	WCBD 6.1 (a): Preference Certificate (80:20) Page 24	<input type="checkbox"/>
4	WCBD4: Declaration of interest Page 31	<input type="checkbox"/>
5	Addenda / Notices issued to tenderers Page 40	<input type="checkbox"/>
6	Schedule of work experience Page 41	<input type="checkbox"/>
Contract Schedules:		
7	C1.1 Form of Offer and Acceptance Page 45	<input type="checkbox"/>
8	C1.2 Contract Data Part Two: Data provided by the <i>Contractor</i> Page 54	<input type="checkbox"/>
9	Pricing Summary Page 59	<input type="checkbox"/>
10	Price List Page 60	<input type="checkbox"/>
11	Amendments by <i>Contractor</i> Page 85	<input type="checkbox"/>
12	<i>Contractor's</i> Equipment schedule Page 86	<input type="checkbox"/>
13	<i>Contractor's</i> schedule of subcontractors Page 87	<input type="checkbox"/>
14	<i>Contractor's</i> proposed work programme Page 88	<input type="checkbox"/>
15	<i>Contractor's</i> health & safety plan Page 89	<input type="checkbox"/>
16	<i>Contractor's</i> environmental management plan Page 90	<input type="checkbox"/>

2. Returnable Documents to be submitted with bid

Document	Check
<ul style="list-style-type: none"> • B-BBEE Status Level Verification Certificate 	<input type="checkbox"/>
<ul style="list-style-type: none"> • Central Supplier Database (CSD) Tax status verification report 	<input type="checkbox"/>

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T2.2 Returnable schedules

Important information for completing returnable schedules

1. The returnable schedules list T2.1 shows all the returnable schedules which need to be completed and returned for tender evaluation and contracting purposes. This list includes both document-standard and project-specific schedules. List T2.1 should be used as a checklist by the tenderer to verify that all returnable schedules have been duly completed, to avoid the tender being rejected as non-responsive due to an incomplete submission.
2. Each returnable schedule is numbered, starting at Schedule 1 and following a consecutively incremented whole number sequence through the tender document to the final schedule number assigned, as per the returnable schedules list.
3. Although all returnable schedules are numbered and follow in numeric sequence, they are not all grouped together in a single location in this tender document. Returnable schedules are divided into 2 groups:
 - i. Tender Schedules
 - ii. Contract Schedules

The first group of schedules (Tender Schedules) follow directly from here on forward in Part T2.2, with the remainder (Contract Schedules) following in various sub-sections of Part C of this tender document. Schedules can be quickly located by their document page number given in the list of returnable schedules T2.1.

4. The tenderer must furnish all the information required for each returnable schedule with the indicated amount of detail to ensure compliancy of the tender with responsiveness criteria. Please note: If any returnable schedule or part thereof is not applicable to the tenderer, that schedule or part thereof must be clearly marked "Not Applicable" (N/A), and not simply left blank. Schedules left blank without any indication of response by the tenderer to the requested information in the schedule, will be taken as an omission of the requested information.
5. Some schedules may either require, or have as an option, additional pages of information to be appended by the tenderer when submitting the tender. In each case the exact number of additional pages must be indicated in the space provided on that schedule, or indicated as NIL if no additional pages are appended. All appended pages must be clearly marked with the schedule number to which they belong.

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SCHEDULE 1: Tender offer signature and authority of signatory

The purpose of this Schedule is:

- Section 1: To obtain the necessary information about the tendering entity and the official tender offer signature of the tenderer;
- Section 2: To establish authority of the signatory to sign the tender offer and all other documents and/or correspondence in connection with and relating to the tender.

INSTRUCTIONS FOR COMPLETING SCHEDULE 1:

Tendering entities may be sole proprietors, partnerships, trusts, companies, close corporations or consortia / joint ventures. Schedule 1 must be completed as follows:

- **If the tendering entity is a sole proprietor, trust, partnership, company or close corporation**, then complete both this page and Section 2.1 of this Schedule, and leave Sections 2.2 and 2.3 blank.
- **If the tendering entity is a consortium or joint venture**, then complete both this page and Sections 2.2 and 2.3 of this Schedule, and leave Section 2.1 blank.
- The contact details below must be the officially designated contact addresses which will be used by the *Client* for any and all communication in regard to this tender.

Section 1: Official tender offer signature

THE TENDERING ENTITY IS: (Circle or mark with X the applicable option)

Sole proprietor	Partnership	Trust	Company	Close corporation	Consortium	Joint venture
-----------------	-------------	-------	---------	-------------------	------------	---------------

NAME OF THE TENDERING ENTITY:

.....
(Legally correct full name of the tendering entity)

Registration number of the tendering entity:

CONTACT DETAILS:

Physical & Postal Address:

.....

.....

.....

..... (Postal Code)

Telephone number:

Mobile number:

Email address:

Section 1 (continued...)

For the purpose of simplifying the tender document and tender submission process, the official tender offer signature below by the tenderer shall apply to this tender document as a whole, inclusive of all forms and returnable schedules which in the past required separate signatures on each form, including the Form of Offer.

DULY AUTHORISED REPRESENTATIVE TO DEPOSE TO AFFIDAVIT/SOLEMNL AFFIRM

Declaration and signature to be provided by the duly authorised representative of the entity under oath or solemnly affirmed before a Commissioner of Oaths, failure of which will disqualify the tender submission.

I, hereby swear/solemnly affirm

- i. that the information disclosed in this tender document is true and accurate;
- ii. that I understand the contents of this tender document;
- iii. that the entity undertakes to independently arrive at any offer at any time to the *Client* without any consultation, communication, agreement or arrangement with any competitor. In addition, that there will be no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to the *Client*;
- iv. that the entity is aware of, and undertakes not to, disclose the terms of any bid, formal or informal, directly or indirectly, to any competitor, prior to the awarding of the contract, and
- v. that the authorised signature below serves as the required signature for ALL returnable schedules, including but not limited to the Form of Offer and Acceptance, Preference Certificate, Declaration of Interest and others.

AUTHORISED SIGNATURE OF TENDERER

TO BE COMPLETED BY COMMISSIONER OF OATHS:

I certify that before administering the oath/solemn affirmation I asked the deponent the following questions and wrote down his/her answers in his/her presence:

- 1.1 Do you know and understand the contents of this declaration? ANSWER:
- 1.2 Do you have any objection to taking the prescribed oath and wish to make a solemn affirmation instead? ANSWER:
- 1.3 Do you consider this declaration to be binding on your conscience? ANSWER:

I certify that the deponent has acknowledged that he/she knows and understands the contents of this document inclusive of all declarations therein, which was sworn to/solemnly affirmed before me and the deponent's signature placed thereon in my presence.

.....
SIGNATURE

.....
FULL NAMES (Commissioner of Oaths)

Designation (rank)ex officio: Republic of South Africa

Date:

Place

Address:

Commissioner's Stamp

Section 2: Authority of signatory

2.1: Resolution of board of *Trustees/Directors/Members/Partners

Notes:

1. *Delete which is not applicable.
2. IMPORTANT: This resolution must be signed by ALL the trustees/directors/members/partners of the tendering entity.
3. Should the number of trustees/directors/members/partners exceed the space available below, additional names and signatures must be supplied on a separate page.

RESOLUTION by the *Proprietor/Board of *Trustees/Directors/Members/Partners of:

.....
 (Legally correct full name and registration number, if applicable, of the tendering entity)

Taken at On
 (Place) (Date)

	Name of Proprietor/Trustee/Director/Member/Partner	Capacity	Signature
1			
2			
3			
4			
5			
6			

(Append separate page if not enough space)

RESOLVED that:

1. The entity submits a bid to the Department of Transport and Public Works in respect of Tender No: **WCNCB 09/10/2024**: Error! Reference source not found..
2. *Mr/Mrs/Ms:

in *his/her capacity as:
 (Position in the entity)

and who will sign the tender offer in Section 1 of this Schedule, be, and is hereby authorised, to sign the tender, and any and all other documents and/or correspondence in connection with and relating to the tender and any and all documentation, resulting from the award of the tender to the entity mentioned above.

Number of additional pages appended by the tenderer to this Schedule:(If nil, enter NIL).

2.2: Resolution to enter into Consortium / Joint Venture

Notes:

1. *Delete which is not applicable
2. A separate copy of this Section 2.2 must be duly completed, signed and submitted for each consortium/joint venture partner.
3. IMPORTANT: This resolution must be signed by ALL the trustees/directors/members/partners of the entity entering into the consortium/joint venture.
4. Should the number of representatives exceed the space available below, additional names and signatures must be supplied on a separate page.

RESOLUTION by the *Proprietor/Board of *Trustees/Directors/Members/Partners of:

.....
 (Legally correct full name and registration number, if applicable, of the entity)

Taken at On
 (Place) (Date)

	Name of Proprietor/Trustee/Director/Member/Partner	Capacity	Signature
1			
2			
3			
4			
5			
6			

(Append separate page if not enough space)

RESOLVED that:

1. The entity submits a bid, in consortium/joint venture with the following entities to the Department of Transport and Public Works in respect of Tender No **WCNCB 09/10/2024**: Error! Reference source not found..

	Full legally correct name of entity	Registration No (if applicable)
1		
2		
3		
4		
5		
6		

(Append separate page if not enough space)

Number of additional pages appended by the tenderer to this Schedule:(If nil, enter NIL).

2.3: Resolution to bid as Consortium / Joint Venture

Notes:

1. IMPORTANT: This resolution must be signed by ALL the representatives of the bidding consortium/joint venture.
2. Should the number of representatives exceed the space available below, additional names and signatures must be supplied on a separate page.
3. Enter the entity details and representative details in the same and corresponding numerical sequence into the respective tables below.

RESOLUTION of a meeting of the duly authorised representatives of the following legal entities who have entered into a consortium/joint venture to jointly tender for Tender No: **WCNCB 09/10/2024**: Error! Reference source not found..

	Full legally correct name of entity	Registration No (if applicable)
1		
2		
3		
4		
5		
6		

(Append separate page if not enough space)

Held at On.....
 (Place) (Date)

	Name of authorised representative	Capacity	Signature
1			
2			
3			
4			
5			
6			

(Append separate page if not enough space)

RESOLVED that:

- A. The abovementioned entities submit a bid in consortium/ joint venture to the Department in respect of the tender mentioned above.
- B. *Mr/Mrs/Ms:
in *his/her capacity as:
(Position in the bidding consortium/joint venture)
and who will sign the tender offer in Section 1 of this Schedule, be, and is hereby authorised, to sign the tender, and any and all other documents and/or correspondence in connection with and relating to the tender, as well as to sign any contract, and any and all documentation, resulting from the award of the tender to the entities in the consortium/joint venture mentioned above.
- C. The entities constituting the consortium/joint venture, notwithstanding its composition, shall conduct all business under the name and style of:
.....
(Consortium/joint venture name)
- D. The entities to the consortium/joint venture accept joint and several liability with the parties above for the due fulfillment of the obligations of the consortium/joint venture deriving from, and in any way connected with, the contract to be entered into with the Department in respect of the tender mentioned above.
- E. Any of the entities to the consortium/joint venture intending to terminate the consortium/joint venture agreement, for whatever reason, shall give the Department 30 days written notice of such intention. Notwithstanding such decision to terminate, the entities shall remain jointly and severally liable to the Department for the due fulfillment of the obligations of the consortium/joint venture as mentioned under item D above.
- F. No entity to the consortium/joint venture shall, without the prior written consent of the other entities to the consortium and of the Department, cede any of its rights or assign any of its obligations under the consortium/joint venture agreement in relation to the contract with the Department referred to herein.
- G. The entities choose as domicilium citandi et executandi of the consortium/joint venture for all purposes arising from the consortium/joint venture agreement and the contract with the Department in respect of the tender mentioned above, the physical address and contact details as furnished on the first page of this Schedule.

Number of additional pages appended by the tenderer to this Schedule:(If nil, enter NIL).

**THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM**

SCHEDULE 2: Compulsory Enterprise Questionnaire

Note: In the case of a consortium/joint venture, separate enterprise questionnaires as per this schedule in respect of each consortium/joint venture partner must be completed and submitted.

The tenderer must be shown to be tax compliant either via an attached printout of a CSD tax compliance verification report dated no more than one week prior to tender closing, or by attaching written proof by SARS of approved arrangements in terms of the tenderer's tax clearance

Section 1: Name of enterprise: Address of enterprise:																									
Section 2: VAT registration number, if any:																									
Section 3.1: CIDB registration number, if any:	Section 3.2: CSD Registration Number:																								
Section 4: Particulars of sole proprietors and partners in partnerships																									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:35%;">Name*</th> <th style="width:35%;">Identity number*</th> <th style="width:30%;">Personal income tax number*</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		Name*	Identity number*	Personal income tax number*																					
Name*	Identity number*	Personal income tax number*																							
* Complete only if sole proprietor or partnership and append separate page if more than 6 partners																									
Section 5: Particulars of companies and close corporations Company registration number..... Close corporation number..... Tax reference number.....																									

Section 6: Record of service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

- a member of any municipal council
- a member of any provincial legislature
- a member of the National Assembly or the National Council of Province
- a member of the board of directors of any municipal entity
- an official of any municipality or municipal entity
- an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

If any of the above boxes are marked, disclose the following:

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		current	Within last 12 months

Append separate page if not enough space

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

- a member of any municipal council
- a member of any provincial legislature
- a member of the National Assembly or the National Council of Province
- a member of the board of directors of any municipal entity
- an official of any municipality or municipal entity
- an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		current	Within last 12 months

Append separate page if not enough space

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise:

- i) authorizes the *Client* to perform online or other tax verification procedures as necessary prior to tender award to ensure that the enterprise tax matters are in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

AUTHORISED SIGNATURE OF TENDERER AS PER SCHEDULE 1 (TENDER OFFER SIGNATURE AND AUTHORITY OF SIGNATORY) OF THIS DOCUMENT SERVES AS SIGNATURE FOR THIS SCHEDULE

Number of additional pages appended by the tenderer to this Schedule:(If nil, enter NIL).

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

SCHEDULE 3: WCBD 6.1(a): PREFERENCE CERTIFICATE (80:20)

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022 AND IN TERMS OF THE WESTERN CAPE GOVERNMENTS INTERIM STRATEGY AS IT RELATES TO PREFERENCE POINTS

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution.

NB: BEFORE COMPLETING THIS FORM, BIDDERS (TENDERERS) MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER, PREFERENTIAL PROCUREMENT REGULATIONS, 2022 AND THE BROAD BASED BLACK ECONOMIC EMPOWERMENT ACT AND THE CODES OF GOOD PRACTICE

1. DEFINITIONS

- 1.1 "acceptable tender" means any tender which, in all respects, complies with the specifications and conditions of tender as set out in the tender document.
- 1.2 "affidavit" is a type of verified statement or showing, or in other words, it contains a verification, meaning it is under oath or penalty of perjury, and this serves as evidence to its veracity and is required for court proceedings.
- 1.3 "all applicable taxes" includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- 1.4 "B-BBEE" means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- 1.5 "B-BBEE status level of contributor" means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- 1.6 "bid" means a written offer on the official bid documents or invitation of price quotations and "tender" is the act of bidding/tendering;
- 1.7 "Code of Good Practice" means the generic codes or the sector codes as the case may be;
- 1.8 "consortium or joint venture" means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract;
- 1.9 "contract" means the agreement that results from the acceptance of a bid by an organ of state;
- 1.10 "EME" is an Exempted Micro Enterprise with an annual total revenue of R10 million or less.
- 1.11 "Firm price" means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
- 1.12 "Large Enterprise" is any enterprise with an annual total revenue above R50 million;

- 1.13 "**non-firm prices**" means all prices other than "firm" prices;
- 1.14 "**person**" includes a juristic person;
- 1.15 "**price**" means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- 1.16 "**proof of B-BBEE status level contributor**" means-
- (a) The B-BBEE status level certificate issued by an authorized body or person;
- (b) A sworn affidavit as prescribed in terms of the B-BBEE Codes of Good Practice; or
- (c) Any other requirement prescribed in terms of the Broad-Based Black Economic Empowerment Act.
- 1.17 **QSE** is a Qualifying Small Enterprise with an annual total revenue between R10 million and R50 million;
- 1.18 "**rand value**" means the total estimated value of a contract in Rand, calculated at the time of the tender invitation; and includes all applicable taxes;
- 1.19 "**sub-contract**" means the primary contractor's assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract.
- 1.20 "**tender**" means a written offer in the form determined by an organ of state in response to an invitation to provide or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- 1.21 "**tender for income-generating contracts**" means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions;
- 1.22 "**the Act**" means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000);
- 1.23 "**the Regulations**" means the Preferential Procurement Regulations, 2022;
- 1.24 "**total revenue**" bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the Government Gazette on 11 October 2013;
- 1.25 "**trust**" means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
- 1.26 "**trustee**" means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

2. GENERAL CONDITIONS

- 2.1 The following preference point systems are applicable to all bids:
- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
 - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

- 2.2 Preference point system for this bid:
- a) The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable; or
 - b) The 80/20 preference point system will be applicable to this tender.

2.3 Preference points for this bid shall be awarded for:

- a) Price; and
- b) B-BBEE Status Level of Contribution

2.4 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	
B-BBEE STATUS LEVEL OF CONTRIBUTOR	
Total points Price and B-BBEE must not exceed	100

2.5 Failure on the part of a bidder to fill in, sign this form and submit in the circumstances prescribed in the Codes of Good Practice either a B-BBEE Verification Certificate issued by a Verification Agency accredited by the South African Accreditation System (SANAS) or an affidavit confirming annual total revenue and level of black ownership together with the bid or an affidavit issued by Companies Intellectual Property Commission, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

2.6 The organ of state reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

3. ADJUDICATION USING A POINT SYSTEM

3.1 Subject to Section 2(1)(f) of the Preferential Procurement Policy Framework Act, 2000, the bidder obtaining **the highest number of total points** will be awarded the contract.

3.2 A tenderer must submit proof of its B-BBEE status level of contributor in order to claim points for B-BBEE.

3.3 A tenderer failing to submit proof of B-BBEE status level of contributor or is a non-compliant contributor to B-BBEE will not be disqualified but will only score:

- (a) points out of 80 for price; and
- (b) 0 points out of 20 for B-BBEE

3.4 Points scored must be rounded off to the nearest 2 decimal places.

3.5 In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.

3.6 As per section 2(1)(f) of the Preferential Procurement Policy Framework Act, 2000, the contract may be awarded to a bidder other than the one scoring the highest number of total points based on objective criteria in addition to those contemplated in paragraphs (d) and (e) of the Preferential Procurement Policy Framework Act, 2000 that justifies the award to another tenderer provided that it has been stipulated upfront in the tendering conditions.

3.7 Should two or more bids be equal in all respects; the award shall be decided by the drawing of lots.

4. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

4.1 POINTS AWARDED FOR PRICE

4.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEM

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 or 90/10

$$P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right) \quad \text{or} \quad P_s = 90 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

Where

P_s = Points scored for price of bid under consideration

P_t = Price of tender under consideration

P_{min} = Price of lowest acceptable tender

5. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

5.1 POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 or 90/10

$$P_s = 80 \left(1 - \frac{P_t - P_{max}}{P_{max}} \right) \quad \text{or} \quad P_s = 90 \left(1 - \frac{P_t - P_{max}}{P_{max}} \right)$$

Where

P_s = Points scored for price of bid under consideration

P_t = Price of tender under consideration

P_{max} = Price of highest acceptable tender

6. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

6.1 In terms of WCG interim strategy, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Contributor	Status Level of	Number of points (90/10 system)	Number of points (80/20 system)
1		10	20
2		9	18
3		6	14
4		5	12
5		4	8
6		3	6
7		2	4
8		1	2
Non-compliant contributor		0	0

- 6.2 An **EME** must submit a valid, originally certified affidavit confirming annual turnover and level of black ownership or an affidavit issued by Companies Intellectual Property Commission.
- 6.3 A **QSE that is less than 51 per cent (50% or less) black owned** must be verified in terms of the QSE scorecard issued via Government Gazette and submit a valid, original or a legible certified copy of a B-BBEE Verification Certificate issued by SANAS.
- 6.4 A **QSE that is at least 51 per cent black owned (51% or higher)** must submit a valid, originally certified affidavit confirming turnover and level of black ownership as well as declare its empowering status or an affidavit issued by Companies Intellectual Property Commission.
- 6.5 A **large enterprise** must submit a valid, original or originally certified copy of a B-BBEE Verification Certificate issued by a verification agency accredited by SANAS.
- 6.6 A trust, consortium or joint venture, will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.
- 6.7 A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE status level verification certificate for every separate tender.
- 6.8 Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.

7. BID DECLARATION

7.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

8. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPH 6

8.1 B-BBEE Status Level of Contribution = (maximum of 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 6.1 and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or an affidavit confirming annual total revenue and level of black ownership in terms of the relevant sector code applicable to the tender.

9. SUB-CONTRACTING

9.1 Will any portion of the contract be sub-contracted? YES / NO

9.1.1 If yes, indicate:

(i) what percentage of the contract will be subcontracted?%

(ii) the name of the sub-contractor?

(iii) the B-BBEE status level of the sub-contractor?

(iv) whether the sub-contractor is an EME or QSE? YES / NO

9.1.2 Sub-contracting relates to a particular contract and if sub-contracting is applicable, the bidder to state in their response to a particular RFQ that a portion of that contract will be sub-contracted.

10. DECLARATION WITH REGARD TO COMPANY/FIRM

10.1 Name of company/entity :

10.2 VAT registration number :

10.3 Company Registration number :

10.4 TYPE OF COMPANY/FIRM

 Partnership/ Joint Venture/ Consortium One-person business/ sole propriety Close corporation Public Company Personal Liability Company (Pty) Limited Non-Profit Company State Owned Company

[SELECT APPLICABLE ONE]

10.5 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBEE status level of contribution indicated in paragraph 7 above, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- (a) The Western Cape Government reserves the right to audit the B-BBEE status claim submitted by the bidder.
- (b) As set out in Section 130 of the B-BBEE Act as amended, any misrepresentation constitutes a criminal offence. A person commits an offence if that person knowingly:
- (i) misrepresents or attempts to misrepresent the B-BBEE status of an enterprise;
 - (ii) provides false information or misrepresents information to a B-BBEE Verification Professional in order to secure a particular B-BBEE status or any benefit associated with compliance to the B-BBEE Act;
 - (iii) provides false information or misrepresents information relevant to assessing the B-BBEE status of an enterprise to any organ of state or public entity; or
 - (iv) engages in a fronting practice.
- (c) If a B-BBEE verification professional or any procurement officer or other official of an organ of state or public entity becomes aware of the commission of, or any attempt to commit any offence referred to in paragraph 10.5 (a) above will be reported to an appropriate law enforcement agency for investigation.
- (d) Any person convicted of an offence by a court is liable in the case of contravention of 10.5 (b) to a fine or to imprisonment for a period not exceeding 10 years or to both a fine and such imprisonment or, if the convicted person is not a natural person to a fine not exceeding 10 per cent of its annual turnover.

- (e) The purchaser may, if it becomes aware that a bidder may have obtained its B-BBEE status level of contribution on a fraudulent basis, investigate the matter. Should the investigation warrant a restriction be imposed, this will be referred to the National Treasury for investigation, processing and imposing the restriction on the National Treasury’s List of Restricted Suppliers. The bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, may be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied.
- (f) The purchaser may, in addition to any other remedy it may have –
 - (i) disqualify the person from the bidding process;
 - (ii) recover costs, losses or damages it has incurred or suffered as a result of that person’s conduct;
 - (iii) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation; and
 - (iv) forward the matter for criminal prosecution.
- (g) The information furnished is true and correct.
- (h) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 2 of this form.

SIGNATURE(S) OF THE BIDDER(S):

DATE:

ADDRESS:

.....

WITNESSES:

1.

2.

AUTHORISED SIGNATURE OF TENDERER AS PER SCHEDULE 1 (TENDER OFFER SIGNATURE AND AUTHORITY OF SIGNATORY) OF THIS DOCUMENT SERVES AS SIGNATURE FOR THIS SCHEDULE

Number of additional pages appended by the tenderer to this Schedule:(If nil, enter NIL).

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

SCHEDULE 4: WCBD 4: DECLARATION OF INTERESTS, BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES AND INDEPENDENT BID DETERMINATION

1. To give effect to the requirements of the Western Cape Provincial Treasury Instructions, 2019: Supply Chain Management (Goods and Services), Public Finance Management Act (PFMA) Supply Chain Management (SCM) Instruction No. 3 of 2021/2022 - SBD 4 Declaration of Interest, Section 4 (1)(b)(iii) of the Competition Act No. 89 of 1998 as amended together with its associated regulations, the Prevention and Combating of Corrupt Activities Act No 12 of 2004 and regulations pertaining to the tender defaulters register, Paragraph 16A9 of the National Treasury Regulations and/or any other applicable legislation.
2. Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.
3. All prospective bidders intending to do business with the Institution must be registered on the Central Supplier Database (CSD) and the Western Cape Supplier Evidence Bank (WCSEB) if they wish to do business with the Western Cape Government (WCG) via the electronic Procurement Solution (ePS).
4. The status of enterprises and persons listed on the National Treasury's Register for Tender Defaulters will be housed on the ePS. Institutions may not under any circumstances procure from enterprises and persons listed on the Database of Tender Defaulters.
5. The status of suppliers listed on the National Treasury's Database of Restricted Suppliers will be housed on the ePS; however, it remains incumbent on institutions to check the National Treasury Database of Restricted Suppliers before the conclusion of any procurement process. For suppliers listed as restricted, institutions must apply due diligence and risk assessment before deciding to proceed with procurement from any such supplier.

6. **Definitions**

“**bid**” means a bidder’s response to an institution’s invitation to participate in a procurement process which may include a bid, price quotation or proposal;

“**Bid rigging (or collusive bidding)**” occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and/or services through a bidding process. Bid rigging is, therefore, an agreement between competitors;

“**business interest**” means -

- (a) a right or entitlement to share in profits, revenue or assets of an entity;
- (b) a real or personal right in property;
- (c) a right to remuneration or any other private gain or benefit, or
- (d) includes any interest contemplated in paragraphs (a), (b) or (c) acquired through an intermediary and any potential interest in terms of any of those paragraphs;

"Consortium or Joint Venture" means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract;

"Controlling interest" means, the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise;

"Corruption"- General offences of corruption are defined in the Combating of Corrupt Activities Act, 2004 (Act No 12 of 2004) as:

Any person who directly or indirectly-

- (a) accepts or agrees or offers to accept an! gratification from any other person, whether for the benefit of himself or herself or for the benefit of another person; or
- (b) gives or agrees or offers to give to any other person any gratification, whether for the benefit of that other person or for the benefit of another person., in order to act personally or by influencing another person so to act, in a manner—
 - (i) that amounts to the-
 - (aa) illegal. dishonest. unauthorised. incomplete. or biased: or
 - (bb) misuse or selling of information or material acquired in the course of the exercise, carrying out or performance of any powers, duties or functions arising out of a constitutional, statutory, contractual or any other legal obligation:
 - (ii) that amounts to-
 - (aa) the abuse of a position of authority;
 - (bb) a breach of trust; or
 - (cc) the violation of a legal duty or a set of rules;
 - (iii) designed to achieve an unjustified result; or
 - (iv) that amounts to any other unauthorised or improper inducement to do or 45 not to do anything. of the, is guilty of the offence of corruption

"CSD" means the Central Supplier Database maintained by National Treasury;

"employee", in relation to –

- (a) a department, means a person contemplated in section 8 of the Public Service Act, 1994 but excludes a person appointed in terms of section 12A of that Act; and
- (b) a public entity, means a person employed by the public entity;

"entity" means any -

- (a) association of persons, whether or not incorporated or registered in terms of any law, including a company, corporation, trust, partnership, close corporation, joint venture or consortium; or
- (b) sole proprietorship;

“entity conducting business with the Institution” means an entity that contracts or applies or tenders for the sale, lease or supply of goods or services to the Province;

“Family member” means a person's -

- (a) spouse; or
- (b) child, parent, brother, sister, whether such a relationship results from birth, marriage or adoption or some other legal arrangement (as the case may be);

“intermediary” means a person through whom an interest is acquired, and includes a representative or agent or any other person who has been granted authority to act on behalf of another person;

“Institution” means –

a provincial department or provincial public entity listed in Schedule 3C of the Act;

“Provincial Government Western Cape (PGWC)” means

- (a) the Institution of the Western Cape, and
- (b) a provincial public entity;

“RWOEE” means -

Remunerative Work Outside of the Employee's Employment

“spouse” means a person's -

- (a) partner in marriage or civil union according to legislation;
- (b) partner in a customary union according to indigenous law; or
- (c) partner with whom he or she cohabits and who is publicly acknowledged by the person as his or her life partner or permanent companion.

7. Regulation 13(c) of the Public Service Regulations (PSR) 2016, effective 1 February 2017, prohibits any employee from conducting business with an organ of state, or holding a directorship in a public or private company doing business with an organ of state unless the employee is a director (in an official capacity) of a company listed in schedules 2 and 3 of the Public Finance Management Act.

a) Therefore, by 31 January 2017 all employees who are conducting business with an organ of state should either have:

- (i) resigned as an employee of the government institution or;
- (ii) cease conducting business with an organ of state or;
- (iii) resign as a director/shareholder/owner/member of an entity that conducts business with an organ of state.

8. Any legal person, or their family members, may make an offer or offers in terms of this invitation to bid. In view of potential conflict of interest, in the event that the resulting bid, or part thereof, be awarded to family members of persons employed by an organ of state, it is required that

- the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where the bidder is employed by the Institution
9. The bid of any bidder may be disregarded if that bidder or any of its directors abused the institution's supply chain management system; committed fraud or any other improper conduct in relation to such system; or failed to perform on any previous contract.
 10. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging). Collusive bidding is a per se prohibition meaning that it cannot be justified under any grounds.
 11. Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorises accounting officers and accounting authorities to:
 - (a) disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - (b) cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
 12. Communication between partners in a joint venture or consortium will not be construed as collusive bidding.
 13. In addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

SECTION A: DETAILS OF THE ENTITY	
CSD Registration Number	MAAA
Name of the Entity	
Entity registration Number (where applicable)	
Entity Type	
Tax Reference Number	
Full details of directors, shareholder, member, partner, trustee, sole proprietor or any persons with a right or entitlement to share in profits, revenue or assets of the entity should be disclosed in the Table A below.	

TABLE A

FULL NAME	DESIGNATION (Where a director is a shareholder, both should be confirmed)	IDENTITY NUMBER	PERSONAL TAX REFERENCE NO.	PERCENTAGE INTEREST IN THE ENTITY

SECTION B: DECLARATION OF THE BIDDER'S INTEREST			
<p>The supply chain management system of an institution must, irrespective of the procurement process followed, prohibit any award to an employee of the state, who either individually or as a director of a public or private company or a member of a close corporation, seek to conduct business with the WCG, unless such employee is in an official capacity a director of a company listed in Schedule 2 or 3 of the PFMA as prescribed by the Public Service Regulation 13 (c).</p> <p>Furthermore, an employee employed by an organ of state conducting remunerative work outside of the employee's employment should first obtain the necessary approval by the delegated authority (RWOEE), failure to submit proof of such authority, where applicable, may result in disciplinary action.</p>			
B1.	Are any persons listed in Table A identified on the CSD as employees of an organ of state? (If yes, refer to Public Service Circular EIM 1/2016 to exercise the listed actions)	NO	YES
B2.	Are any employees of the entity also employees of an organ of state? (If yes complete Table B and attach their approved "RWOEE")	NO	YES
B3.	Are any family members of the persons listed in Table A employees of an organ of state? (If yes complete Table B)	NO	YES

TABLE B

Details of persons (family members) connected to or employees of an organ of state should be disclosed in Table B below.

FULL NAME OF EMPLOYEE	IDENTITY NUMBER	DEPARTMENT/ENTITY OF EMPLOYMENT	DESIGNATION/RELATIONSHIP TO BIDDER**	INSTITUTION EMPLOYEE NO./ PERSAL NO. (Indicate if not known)

SECTION C: PERFORMANCE MANAGEMENT AND BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES			
To enable the prospective bidder to provide evidence of past and current performance.			
C1.	Did the entity conduct business with an organ of state in the last twelve months? (If yes complete Table C)	NO	YES

C2. TABLE C

Complete the below table to the maximum of the last 5 contracts.

NAME OF CONTRACTOR	PROVINCIAL DEPARTMENT OR PROVINCIAL ENTITY	TYPE OF SERVICES OR COMMODITY	CONTRACT/ ORDER NUMBER	PERIOD OF CONTRACT	VALUE OF CONTRACT	
C3. Is the entity or its principals listed on the National Database as companies or persons prohibited from doing business with the public sector?					NO	YES
C4. Is the entity or its principals listed on the National Treasury Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No. 12 of 2004)?					NO	YES
(To access this Register enter the National Treasury's website, www.treasury.gov.za , click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 326 5445.)						
C5. If yes to C3 or C4, were you informed in writing about the listing on the database of restricted suppliers or Register for Tender Defaulters by National Treasury?				NO	YES	N/A
C6. Was the entity or persons listed in Table A convicted for fraud or corruption during the past five years in a court of law (including a court outside the Republic of South Africa)?					NO	YES
C7. Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?					NO	YES

SECTION D: DULY AUTHORISED REPRESENTATIVE TO DEPOSE TO AFFIDAVIT

This form must be signed by a duly authorised representative of the entity in the presence of a commissioner of oaths.

I,hereby swear/affirm;

- i. that the information disclosed above is true and accurate;
- ii. that I have read understand the content of the document;
- iii. that I have arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor.
- iv. that the entity undertakes to independently arrive at any offer at any time to the Institution without any consultation, communication, agreement or arrangement with any competitor. In addition, that there will be no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specification, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates;
- v. that the entity or its representative are aware of and undertakes not to disclose the terms of any bid, formal or informal, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract; and
- vi. that there have been no consultations, communications, agreements or arrangements made with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and that my entity was not involved in the drafting of the specifications or terms of reference for this bid.

.....

DULY AUTHORISED REPRESENTATIVE'S

SIGNATURE

I certify that before administering the oath/affirmation I asked the deponent the following questions and wrote down his/her answers in his/her presence:

- 1.1 Do you know and understand the contents of the declaration? ANSWER:
- 1.2 Do you have any objection to taking the prescribed oath? ANSWER:
- 1.3 Do you consider the prescribed oath to be binding on your conscience? ANSWER:.....
- 1.4 Do you want to make an affirmation? ANSWER:

2. I certify that the deponent has acknowledged that he/she knows and understands the contents of this declaration, which was sworn to/affirmed and the deponent's signature/thumbprint/mark was place thereon in my presence.

.....
SIGNATURE FULL NAMES: Commissioner of Oaths

Designation (rank):ex officio: Republic of South Africa

Date: **Place:**

Business Address:

AUTHORISED SIGNATURE OF TENDERER AS PER SCHEDULE 1 (TENDER OFFER SIGNATURE AND AUTHORITY OF SIGNATORY) OF THIS DOCUMENT SERVES AS SIGNATURE FOR THIS SCHEDULE

Number of additional pages appended by the tenderer to this Schedule:(If nil, enter NIL).

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

SCHEDULE 5: Addenda / Notice(s) issued to tenderers

We confirm that the following communications / addenda / notice(s) to tenderers received from the *Client* before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer (If no addenda/notices mark schedule NIL, if not enough space, attach additional pages):

ADDENDUM No	DATE	SUBJECT MATTER OF ADDENDUM / NOTICE

Documentary evidence of addenda / notices issued to tenderers indicating proof of receipt must accompany this Schedule.

AUTHORISED SIGNATURE OF TENDERER AS PER SCHEDULE 1 (TENDER OFFER SIGNATURE AND AUTHORITY OF SIGNATORY) OF THIS DOCUMENT SERVES AS SIGNATURE FOR THIS SCHEDULE

Number of additional pages appended by the tenderer to this Schedule:(If nil, enter NIL).

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

SCHEDULE 6: Schedule of work experience

The tenderer must provide in the spaces provided below a list of the last five completed contracts of a similar nature as this tender which were awarded to him, as well as those currently being undertaken. This information is subject to verification and tenderers must note that the adequacy of the contractor's work experience will be material in the *Client's* risk assessment for awarding this contract.

COMPLETED CONTRACTS			
CLIENT (NAME, TEL No and FAX No)	NATURE OF WORK	VALUE (R)	DATE COMPLETED

(Append separate page if not enough space)

CURRENT CONTRACTS			
CLIENT (NAME, TEL No and FAX No)	NATURE OF WORK	VALUE (R)	ANTICIPATED COMPLETION DATE

(Append separate page if not enough space)

AUTHORISED SIGNATURE OF TENDERER AS PER SCHEDULE 1 (TENDER OFFER SIGNATURE AND AUTHORITY OF SIGNATORY) OF THIS DOCUMENT SERVES AS SIGNATURE FOR THIS SCHEDULE

Number of additional pages appended by the tenderer to this Schedule:(If nil, enter NIL).



THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

NEC4 ENGINEERING AND CONSTRUCTION SHORT CONTRACT (ECSC4)
16B – Delivery & Maintenance of Infrastructure

A contract between the Western Cape Nature Conservation Board T/A CapeNature
and

Name of Contractor:

The Contract
 Compiled in accordance with CIDB Standard for Uniformity in Engineering and Construction Works Contracts (August 2019)

Part C1: Agreement and Contract Data	Page 44
C1.1 Form of Offer and Acceptance	Page 45
C1.2 Contract Data	Page 49
Part C2: Pricing Data	Page 55
C2.1 Pricing assumptions & instructions	Page 56
C2.2 Pricing schedule	Page 59
Part C3: Scope of work	Page 61
Scope	Page 62
Part C4: Site Information	Page 93
Appendix: Drawings, schematics & annexures	Page 95

NOTE: The complete contract documentation comprises the following:

- This document, from and including page 1 forward, up to and including the last page (page 95) in this document page count;
- All items included by reference or otherwise in this document;
- All addenda/notices issued by the *Client* to tenderers prior to tender closing;
- All deviations included in the Schedule of Deviations on page 47 of this document;
- All additional pages appended by the tenderer to returnable Contract Schedules which are accepted by the *Client*.

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Part C1: Agreement and Contract Data	
C1.1 Form of Offer and Acceptance	Page 45
Schedule 7: Form of Offer and Acceptance	Page 45
C1.2 Contract Data	Page 49
Contract Data Part One	Page 49
Schedule 8: Contract Data Part Two	Page 54

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

C1.1 Form of Offer and Acceptance

SCHEDULE 7 : C1.1 Form of Offer and Acceptance

The Contractor’s Offer

The *Client*, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of: **Tender No: WCNCB 09/10/2024.**

The tenderer, identified in the offer signature block, has examined the documents listed in the Tender Data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the Conditions of Tender.

By the representative of the tenderer, deemed to be duly authorised, signing this Offer, the tenderer offers to perform all of the obligations and liabilities of the *Contractor* under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the *conditions of contract* identified in the Contract Data.

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS:

.....

.....Rand (in words);

R..... (in figures).

This offer may be accepted by the *Client* by signing the *Client's* Acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the Tender Data, whereupon the tenderer becomes the party named as the *Contractor* in the *conditions of contract* identified in the Contract Data.

For the tenderer:

AUTHORISED SIGNATURE OF TENDERER AS PER SCHEDULE 1 (TENDER OFFER SIGNATURE AND AUTHORITY OF SIGNATORY) OF THIS DOCUMENT SERVES AS SIGNATURE FOR THIS SCHEDULE

Tenderer MUST complete the following:
CIDB Reg No.....
CSD Reg No.....
B-BBEE Status Level.....

Name of organisation **as per Schedule 1**

Name and capacity of signatory **as per Schedule 1**

Address of organisation **as per Schedule 1**

The Client's Acceptance

By signing this Acceptance, the *Client* identified below accepts the tenderer's offer. In consideration thereof, the *Client* shall pay the *Contractor* the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's offer shall form an Agreement between the *Client* and the tenderer upon the terms and conditions contained in this Agreement and in the contract that is the subject of this Agreement.

The terms of the contract, are contained in:

- Part C1: Agreement and Contract Data, (which includes this agreement)
- Part C2: Pricing data
- Part C3: Scope of work.
- Part C4: Site information

and drawings, schedules and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the *Client* during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall arrange for the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of this contract. Failure to fulfil any of these obligations in accordance with the terms stipulated, shall constitute a repudiation of this Agreement.

This Agreement comes into effect on the *starting date* as stated in the Contract Data.

For the Client:

Western Cape Nature Conservation Board T/A CapeNature
 PGWC Shared Services Centre
 cnr Bosduif & Vostruis Str
 Bridgetown, Gatesville
 7764

SIGNATURE OF Client

Name:

Capacity:

Name and signature of witness:

.....

Date:

Schedule of Deviations

(Append separate page if not enough space)

1 Subject:
Details:
.....
.....

2 Subject:
Details:
.....
.....

3 Subject:
Details:
.....
.....

4 Subject:
Details:
.....
.....

5 Subject:
Details:
.....
.....

By the duly authorized representatives signing this Agreement, the *Client* and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the *Client* during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the Parties arising from this Agreement.

For the Tenderer:

AUTHORISED SIGNATURE OF TENDERER (Only required if the Schedule of Deviations contains entries)

Name:

Capacity:

Name and address of organisation:
.....

Name and signature of witness:
.....

Date:

For the Client:

Western Cape Nature Conservation Board T/A CapeNature
 PGWC Shared Services Centre
 cnr Bosduif & Vostruis Str
 Bridgetown, Gatesville
 7764

SIGNATURE OF Client (Only required if the Schedule of Deviations contains entries)

Name:

Capacity:

Name and signature of witness:
.....

Date:

Number of additional pages appended by the tenderer to this schedule:(If nil, enter NIL).

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Contract Data

C1.2 Contract Data Part One

Data provided by the Client

Clause	Contract Data												
1 General	The <i>conditions of contract</i> are the clauses of, and additional conditions to, the NEC4 Engineering and Construction Short Contract (June 2017) , available from ECS Associates (tel 011-803-3008, email admin@ecs.co.za), tenderers to obtain copies at their own cost.												
Clause 10.1	<p>The <i>Client</i> is</p> <table border="1" style="width: 100%;"> <tr> <td>Name:</td> <td>WESTERN CAPE NATURE CONSERVATION BOARD T/A CapeNature</td> </tr> <tr> <td>Address Line 1</td> <td>PGWC Shared Services Centre</td> </tr> <tr> <td>Address Line 2</td> <td>cnr Bosduif & Vostruis Str</td> </tr> <tr> <td>Address Line 3</td> <td>Bridgetown, Gatesville</td> </tr> <tr> <td>Postal Code:</td> <td>7764</td> </tr> <tr> <td>Email address:*</td> <td>rmathews@capenature.co.za</td> </tr> </table> <p>* Address for electronic communications</p>	Name:	WESTERN CAPE NATURE CONSERVATION BOARD T/A CapeNature	Address Line 1	PGWC Shared Services Centre	Address Line 2	cnr Bosduif & Vostruis Str	Address Line 3	Bridgetown, Gatesville	Postal Code:	7764	Email address:*	rmathews@capenature.co.za
Name:	WESTERN CAPE NATURE CONSERVATION BOARD T/A CapeNature												
Address Line 1	PGWC Shared Services Centre												
Address Line 2	cnr Bosduif & Vostruis Str												
Address Line 3	Bridgetown, Gatesville												
Postal Code:	7764												
Email address:*	rmathews@capenature.co.za												
Clause 11.2(1)	The <i>works</i> are Tender No WCNCB 09/10/2024 .												
Clause 11.2(15)	The <i>Scope</i> is in Part C3: Scope of Work in this document.												
Clause 11.2(16)	The <i>site</i> is as described in the Site Information of this document.												
Clause 13.2	The <i>period for reply</i> is 2 weeks .												
Clause 16.1	The <i>Client</i> gives access to the <i>site</i> within 4 weeks of the starting date, subject to receipt of all the required information and documents as stated in the letter of notification of appointment of the Contractor by the Client . A delay by the <i>Contractor</i> to provide the required information and documents to the satisfaction of the <i>Client</i> within 4 weeks of the <i>starting date</i> will delay access, and is not a compensation event.												
3 Time													
Clause 30.1	The <i>starting date</i> is the date of receipt of the letter of notification of appointment of the Contractor issued by the Client (in the case of email notification the date on which the email is sent by the <i>Client</i>).												
Clause 30.1	The <i>completion date</i> for the whole of the <i>works</i> is the date following 16 weeks after the starting date , which includes a period of 4 weeks for the <i>Contractor</i> to provide the <i>Client</i> with the necessary bonds, guarantees, insurance certificates, OHS plan, and other information required by this contract.												

Clause	Contract Data
4 Quality management	The period of 4 weeks includes one week for the <i>Client</i> to assess and process the submitted documentation.
Clause 41.1	The <i>defects date</i> is 52 weeks after Completion.
Clause 42.3	The <i>defect correction period</i> is 2 weeks .
5 Payment	
Clause 50.1	The <i>assessment day</i> is the 15th of each month.
Clause 50.6	The <i>delay damages</i> are R 5,000 per calendar day excluding Vat .
Clause 50.7	The <i>retention</i> is 5% (five percent) excluding VAT of the contract value , attained by payment reduction of 10% (ten percent) of the value certified in payment certificates until the <i>retention</i> amount is reached.
Clause 51.1	Delete the first sentence of Clause 51.1 and replace with the following: The <i>Client</i> certifies a payment within one week of the assessment day. The <i>Contractor</i> prepares a tax invoice for the exact amount certified by the <i>Client</i> . The <i>Contractor</i> submits the tax invoice together with the corresponding payment certificate to the <i>Client</i> for payment. Incomplete and incorrect payment submissions are returned within one week to the <i>Contractor</i> for correction. Payment is made within thirty days of receipt of a complete and correct <i>Contractor's</i> payment submission.
Clause 51.2	The interest rate on late payment is 0,5 % per complete week of delay .
8 Liabilities and insurance	
Clause 82.4	For any one event, the liability of the <i>Contractor</i> to the <i>Client</i> for loss of or damage to the <i>Client's</i> property is limited to R1 000 000.00 (One Million rand) . The liability of the <i>Contractor</i> for latent defects is limited to 5 years after the defects date.
Clause 83.3	The minimum amount of cover for the third insurance stated in the Insurance Table is R2 000 000 (two million rand) .
Clause 83.3	The minimum amount of cover for the fourth insurance stated in the Insurance Table is R10 000 000 (ten million rand) .
9 Termination and resolving disputes	
Clause 93.1	The <i>Adjudicator</i> is the person selected by the Parties as follows: A Party may at any time notify the other Party of the names of two persons chosen from the panel of NEC <i>Adjudicators</i> set up by the Joint Civils Division of the Institution of Civil Engineers (ICE)(UK) and the South African Institution for Civil Engineering (SAICE) (see www.jointcivils.co.za) whose availability to act as the <i>Adjudicator</i> , has been confirmed by the notifying Party. The other party selects one of the two persons chosen to be the <i>Adjudicator</i> within the <i>period for reply</i> of receiving the notice, failing which the person chosen by the notifying Party will be the <i>Adjudicator</i> . The Parties appoint the <i>Adjudicator</i> under the NEC4 <i>Adjudicator's Contract</i> , June 2017.

Clause	Contract Data
Clause 93.2(2)	The <i>Adjudicator nominating body</i> is The Chairman of the Joint Civils Division of the Institution of Civil Engineers (ICE)(UK) and the South African Institution for Civil Engineering (SAICE) (see www.jointcivils.co.za).
Clause 93.4	The <i>tribunal</i> is arbitration . The arbitration procedure is as set out in the Rules of the Arbitration Foundation of Southern Africa .
Z Additional conditions of contract	
Clause Z1	No clause
Clause Z2	Identified and defined terms The Contract Date is the date this contract came into existence.
Clause Z3	Acts or omissions by mandataries In terms of Section 37(2) of the Occupational health and Safety Act of 1993 (Act 85 of 1993), the <i>Contractor</i> hereby agrees that the <i>Client</i> is relieved of any and all of its liabilities in terms of Section 37(1) of this Act in respect of any acts or omissions of the <i>Contractor</i> and his employees to the extent permitted by this Act, and that this contract comprises the written agreement between the <i>Client</i> and the <i>Contractor</i> contemplated in section 37(2).
Clause Z4	Maintenance of mandatory registrations The <i>Contractor</i> ensures that his registrations with the Construction Industry Development Board (CIDB) and as a supplier on the Western Cape Supplier Evidence Bank (WCSEB) and the Central Supplier Database (CSD) are maintained until the Completion of the whole of the works.
Clause Z5	Compliance with good labour practice The <i>Contractor</i> is registered with, and provides a Certificate of Compliance issued by, the Building Industry Bargaining Council (BIBC) in terms of clause 6A of the Collective Agreement as published in the Government Gazette No 25769 dated 28 November 2003. The <i>Contractor</i> complies with all BIBC requirements in terms of registration and remuneration of employees in the Working Areas, and remains in good standing with the BIBC during the execution of the contract.
Clause Z6	Participation in the Expanded Public Works Programme (EPWP) The <i>Contractor</i> participates in the Western Cape Government Expanded Public Works Programme (EPWP) to give feedback during execution of the works or service in terms of a monthly return of the EPWP feedback form providing details of the number of workers employed under this contract for the preceding month, which includes the details for subcontractors' employees, if any. A pro forma of this form is provided in digital format (Excel spreadsheet) upon commencement of the contract. No monthly invoice is approved without inclusion of the EPWP feedback form in any payment submission. If no EPWP workers were employed, a NIL return is submitted. When any EPWP worker is registered to work under this contract for the first time, a certified true copy of the worker's Identity Document is submitted with the feedback form for that month. Any type of stamp can be used with the following wording or something similar to the same effect: "Certified a true copy of the original which bears no noticeable evidence of unauthorised alterations". Certification is made only to confirm that the copy is unaltered from the original ID document presented

Clause	Contract Data
	by the worker. It is neither the <i>Client's</i> nor the <i>Contractor's</i> responsibility or competency to certify that ID documents presented are authentic and legally valid.
Clause Z7	No clause
Clause Z8	<p>Performance bond</p> <p>The <i>Contractor</i> gives the <i>Client</i> a performance bond, provided by a bank or insurer which the <i>Client</i> has accepted, for the amount stated in the Contract Data and in the form set out in the Scope. Insurers must be duly registered in terms of the Short-Term Insurance Act 1998 (Act 35 of 1998) and banks must be duly registered in terms of the Banks Act, 1990 (Act 94 of 1990). No alterations or amendments of the wording of the form of the performance bond will be accepted. A reason for not accepting the bank or insurer is that its commercial position is not strong enough to carry the bond. If the bond was not given by the <i>starting date</i> it is given to the <i>Client</i> within four weeks of the <i>starting date</i>. The <i>Contractor</i> does not start work before acceptance of the bond by the <i>Client</i>. Alternatively, a cash deposit of the same amount is also acceptable as a performance bond.</p> <p>The form of the performance bond is the pro forma performance guarantee in the Scope.</p>
Clause Z9	<p>No gifts/tokens/invitations from the <i>Contractor</i> to <i>Client's</i> officials</p> <p>Although there are formal prescripts and mechanisms in place to regulate and record the receipt of small tokens/gifts/invitations from contractors and service providers, officials of the <i>Client</i> are actively discouraged from accepting any such gifts/tokens/invitations. In terms of this contract, the <i>Contractor</i> shall not offer any gift/token/invitation which carries any monetary benefit, irrespective of value, directly or indirectly, to any official in the <i>Client's</i> service, before or after completion of this contract.</p>
Clause Z10	No clause
Clause Z11	<p>Non-working days and the December/January builders' break</p> <p>Non-working days stated herein are added to delays to the Completion Date assessed due to compensation events.</p> <p>Inclusion or exclusion of the annual December/January builders' break in determining and influencing the Completion Date set at the Contract Date is as stated herein, omission of which means EXCLUSION by default.</p> <p>If Completion is delayed until after the start of the builders' break, the full period of the builders' break is added in addition to delays to the Completion Date due to compensation events only if</p> <ul style="list-style-type: none"> • the annual builders' break was EXCLUDED when setting the Completion Date at the Contract Date, and • the delay to the delay to Completion is not the <i>Contractor's</i> fault. <p>If either Party issues a communication in terms of this contract to the other at any time during the builders' break, the <i>period for reply</i> is extended by the remainder of the period of the builders' break at the time of the communication.</p> <p>Saturdays, Sundays and National public holidays of the Republic of South Africa are non-working days when assessing delays to the Completion Date due to compensation events.</p> <p>The full period of the annual builders' break of approximately 4 weeks in December/January during execution of this contract is INCLUDED in the</p>

Clause	Contract Data
	Completion Date as set at the Contract Date and will NOT be added to any other delays due to compensation events.
Clause Z12	No clause
Clause Z13	The <i>Contractor</i> provides this additional insurance to the insurances listed in the Insurance Table: A Coupon Policy for Special Risks Insurance issued by the South African Special Risks Insurance Association (SASRIA).
Clause Z14	No clause
Clause Z15	No clause
Clause Z16	Payment of subcontractors by the <i>Contractor</i> The <i>Contractor</i> pays a subcontractor within one week for all subcontracted work which in terms of this contract has been certified and paid to the <i>Contractor</i> .
Clause Z17	No clause
Clause Z18	No clause
Clause Z19	Cost of preparation of quotations for compensation events All costs associated with the preparation of quotations for compensation events for this contract are the <i>Contractor's</i> risk and are not reimbursable by the <i>Client</i> .
Clause Z20	<i>Contractor's</i> site attendance register The <i>Contractor</i> keeps an attendance register detailing identity, sign-in and sign-out by all people entering the site or location where the works is provided, details of which are made available to the <i>Client</i> upon request.
Clause Z21	No clause
Clause Z22	Liability for defects The <i>end of liability date</i> for defects (latent or otherwise) is 5 years after Completion.
Clause Z23	Minimum thresholds for local production and content: cement and/or steel The minimum thresholds for local production and content for cement and/or steel as per C.2.18.1 of the Tender Data apply to this contract, and the minimum thresholds are stated in Returnable Schedule Error! Reference source not found.

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Contract Data

C1.2 Contract Data Part Two

SCHEDULE 8: Data provided by the Contractor

Clause	Contract Data														
<p>1 General Clause 10.1</p>	<p>The Contractor is</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 20%;">Name:</td> <td></td> </tr> <tr> <td>Address Line 1</td> <td></td> </tr> <tr> <td>Address Line 2</td> <td></td> </tr> <tr> <td>Address Line 3</td> <td></td> </tr> <tr> <td>Postal Code:</td> <td></td> </tr> <tr> <td>Contact no:</td> <td></td> </tr> <tr> <td>Email address*:</td> <td></td> </tr> </table> <p>* Address for electronic communications</p>	Name:		Address Line 1		Address Line 2		Address Line 3		Postal Code:		Contact no:		Email address*:	
Name:															
Address Line 1															
Address Line 2															
Address Line 3															
Postal Code:															
Contact no:															
Email address*:															
Clause 11.2(6)	The <i>published list of Equipment</i> is the last edition of the list published by the Contractor's Plant Hire Association in their publication Hire SA in Africa (tel 011-293-7457).														
Clause 11.2(6)	The <i>percentage for adjustment for Equipment</i> is as priced in the Price List in Part C2: Pricing Data of this document.														
Clause 11.2(8)	The <i>fee percentage</i> is 10%														
Clause 11.2(10)	The <i>people rates</i> are in the Price List in Part C2: Pricing Data of this document.														
Clause 11.2(13)	<p>The Price List is in Part C2: Pricing Data of this document</p> <p>The <i>completion date</i> is the date following 16 weeks after the starting date (max 4 weeks allowed), which includes a period of 4 weeks for the Contractor to provide the Client with the necessary bonds, guarantees, insurance certificates, OHS plan, and other information required by this contract.</p> <p>The period of 4 weeks includes one week for the Client to assess and process the submitted documentation.</p>														

AUTHORISED SIGNATURE OF TENDERER AS PER SCHEDULE 1 (TENDER OFFER SIGNATURE AND AUTHORITY OF SIGNATORY) OF THIS DOCUMENT SERVES AS SIGNATURE FOR THIS SCHEDULE

Number of additional pages appended by the tenderer to this Schedule:(If nil, enter NIL).

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

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THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

C2.1 Pricing assumptions & instructions

Pricing assumptions & instructions

1. GENERAL

- 1.1 It will be assumed that prices included in the pricing schedule are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).
- 1.2 The Contractor is paid for completed work i.e. work without Defects. This is a re-measurement contract and the Price List comprises only items measured in terms of the standard method of measurement using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.
- 1.3 The method of measurement is according to the Sixth Edition of the Standard System of Measuring Builder's Work, amended 1999, published by the Association of South African Quantity Surveyors as well as the Model Preambles for Trades (2008 Edition) as recommended and published by the Association of South African Quantity Surveyors, and, where applicable, the latest release of the Civil Engineering Standard Method of Measurement: South African Edition.
- 1.4 Use is made of method related charges for Equipment applied to Providing the Works based on durations shown in the Accepted Programme (if applicable), fixed charges for the use of Equipment that is required throughout the construction phase, time related charges for people working in a supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing work items typically included in other parts of the Price List.
- 1.5 The Price List needs to be read in conjunction with the drawings identified in the Scope.
- 1.6 In the event of any ambiguity or inconsistency between the statements in the *method of measurement* and this section, the interpretation given in these pricing assumptions, the latter shall prevail.
- 1.7 The units of measurement described in the Price List are metric units abbreviated as follows:

Abbreviation	Unit
%	percent
h	hour
ha	hectare
kg	kilogram
kl	kilolitre
km	kilometre
km-pass	kilometre-pass
kPa	kilopascal
kW	kilowatt
l	litre
m	metre
mm	millimetre
m ²	square metre
m ² -pass	square metre pass
m ³	cubic metre

m ³ -km	cubic metre-kilometre
MN	meganewton
MN.m	meganewton-metre
MPa	megapascal
No.	number
Prov sum	provisional sum
PC-sum	prime cost sum
R/only	Rate only
sum	Lump sum
t	ton (1000kg)
W/day	Work day

- 1.8 For the purpose of the Price List, the following words have the meanings hereby assigned to them:
- Unit: The unit of measurement for each item of work as defined in the relevant Standards or Specifications stated in the Scope of this document.
- Quantity: The number of units of work for each item.
- Rate: The agreed payment per unit of measurement.
- Price: The product of the quantity and the agreed rate for an item, or an agreed amount for an item, the extent of which is described in the Price List but the quantity of work of which is not measured in any units.
- 1.9 Descriptions in the Price List are abbreviated and comply generally with those in the Standards or Specifications stated in Scope of this document.
- 1.10 Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.
- 1.11 The Prices and rates stated for each item in the Price List shall be treated as being fully inclusive of all work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the Contractor in carrying out or providing that item.
- 1.12 An item against which no Price is entered will be treated as covered by other Prices or rates in the Price List.
- 1.13 All Prices in the Price List exclude VAT, while the total of Prices reflected in the Contractor's Offer includes VAT.
- 1.14 Where the Scope requires detailed shop drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and Prices tendered for such items.
- 1.15 Those parts of the contract to be constructed using labour-intensive methods (if applicable) have been marked as such in the pricing schedule and Scope. The works, or parts of the works so designated are to be constructed using labour-intensive methods only, and pricing for such items must make provision for this accordingly. The use of equipment to provide such works, other than Equipment specifically provided for in the Scope, is not allowed and in contravention of the contract. The items designated as labour-intensive are not necessarily an exhaustive list of all the activities which must be done labour-intensively, and this instruction does not override any of the requirements in the general labour-intensive specification in the Scope.

2. COMPENSATION EVENTS

2.1 Payment for items in the Price List which are associated with any budgetary allowances, provisional sums and prime costs are dealt with in the same manner as payment for compensation events, i.e. Defined Cost plus the percentage/s for overheads and profit as stated in the Contract Data.

3. THE TOTAL FINANCIAL OFFER FOR THIS TENDER

3.1 The financial offer of this tender is the total price reflected in the Pricing Summary of the Price List and, subsequently, in the *Contractor's Offer*.

4. MATERIAL CONFLICT WITH CONDITIONS OF CONTRACT

4.1 PLEASE NOTE: If anything in this Price List materially contradicts or is in conflict with any stipulation in the *conditions of contract*, the stipulation in the *conditions of contract* shall prevail.

**THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM**

C2.2 Pricing schedule

SCHEDULE 9: Pricing Summary

TOTAL PRICE OFFER FOR THIS CONTRACT

The total price offer, EXCLUSIVE of VAT for all work specified in the Price List, is as follows:

SECTION 1:

Price carried from Price List Section A:	R.....
Price carried from Price List Section C:	R.....
Price carried from Price List Section DB:	R.....
Price carried from Price List Section DK:	R.....
Price carried from Price List Section LB:	R.....
Price carried from Price List Section LD:	R.....

SECTION 2:

Price carried from Price List Section	
Alternative Small Bore Gravity System:	R.....

Sub-total R.....

Add 10% Contingency Amount R.....

Sub-total R.....

Add VAT at 15% R.....

TOTAL PRICE OFFER: R.....

This total price offer is to be carried over to C1.1: Form of Offer and Acceptance on page 45 of this document.

AUTHORISED SIGNATURE OF TENDERER AS PER SCHEDULE 1 (TENDER OFFER SIGNATURE AND AUTHORITY OF SIGNATORY) OF THIS DOCUMENT SERVES AS SIGNATURE FOR THIS SCHEDULE

Number of additional pages appended by the tenderer to this Schedule: (If nil, enter NIL).

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

C2.2 Pricing schedule

SCHEDULE 10: Price List

The Price List for this contract is in **Annexure 1 in the Appendix** to this document, and consists of the following sections:

SABS 1200 A	.....	GENERAL
SABS 1200 C	.....	SITE CLEARANCE
SABS 1200 DB	.....	EARTHWORKS (PIPE TRENCHES)
SABS 1200 DK	.....	GABIONS AND PITCHING
SABS 1200 LB	.....	BEDDING (PIPES)
SABS 1200 LD	.....	SEWERS

IMPORTANT: Please note the following:

1. Ensure that the fully priced Price List is returned with your bid submission. Failure to do so will invalidate your tender.
2. Ensure that the pricing totals in the Price List are carried as appropriate to the Pricing Summary on page 59 of this document, and the total of the Prices from there to the Form of Offer and Acceptance on page 45 of this document. Failure to do so will invalidate your tender.
3. Please check the Tender Data (Clause C.2.10.5) for the requirements pertaining to submission of the priced document, and ensure that you comply with the stipulations thereof. Failure to comply will invalidate your tender.
4. All information given in the Scope must be taken into account for pricing. Unrealistic pricing in terms of the envisaged work will render your tender high-risk, and may therefore be ineligible for award.
5. All items in the Price List are to be priced EXCLUSIVE of VAT.
6. All items in the Price List must be priced. Non-priced items may render your bid invalid – please see the Tender Data (Clause C.2.14) for details.

AUTHORISED SIGNATURE OF TENDERER AS PER SCHEDULE 1 (TENDER OFFER SIGNATURE AND AUTHORITY OF SIGNATORY) OF THIS DOCUMENT SERVES AS SIGNATURE FOR THIS SCHEDULE

Number of additional pages appended by the tenderer to this Schedule:(If nil, enter NIL).

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE**PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM****Part C3: Scope of Work**

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2. List of drawings, schematics & annexures	Page 70
3. Specifications, standards & workmanship	Page 71
4. Constraints on Providing the Works	Page 81
5. Requirements for the programme	Page 82
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THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Scope

Preamble to Scope

NEC4 defined terms and terms identified in the Contract Data

The *works* are to be executed in accordance with the Scope forming part of the NEC4 *conditions of contract* as described in the Contract Data of this document. The Scope is meant to convey all relevant information required for the execution of the *works* clearly and unambiguously by following the formatting requirements of the *conditions of contract*, with due reference to defined terms and terms identified in the Contract Data.

Clause 11.1 of the *conditions of contract* stipulates that terms identified in the Contract Data are in italics, and defined terms have capital initials.

While every effort is made to ensure that the Scope conforms in full to these formatting requirements, there will always be a possibility that some defined terms and terms identified in the Contract Data may not be formatted in the prescribed manner in the Scope. This possibility increases when the Scope is voluminous and comprises different parts compiled by different contributors and disciplines.

THEREFORE, PLEASE NOTE:

For the purposes of clarity and to remove any ambiguity in regard to defined terms and terms identified in the Contract Data as referenced in the Scope, the following shall apply:

- All defined terms which do not have capital initials, shall be read as if they have capital initials, and
- all terms identified in the Contract Data which are not in italics, shall be read as if they are in italics.

Material conflict with *conditions of contract*

PLEASE NOTE: If anything in the Scope materially contradicts or is in conflict with any stipulation in the *conditions of contract*, the stipulation in the *conditions of contract* shall prevail.

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Scope

1. Description of the works

Index:

PS.1	General Description and Scope
PS.2	Description of the Site and Access
PS.3	Nature ground and Subsoil Conditions
PS.4	Site Facilities available
PS.5	Site Facilities required
PS.6	Location of Existing Underground Services
PS.7	Protection of Existing Services
PS.8	Survey-Pegs
PS.9	Application Standardized and Particular Specification
PS.10	Traffic and Safety Control Measures
PS-11	Employment of Local Labour and using Labour Intensive Construction Practices
PS.12	Applicable Standardized and Particular Specifications
PS.13	Traffic and Safety Control Measures
PS-14	Occupational Health and Safety
PS-15	Labour Intensive Methods and Use of Local CIDB Subcontractors And EME/QSE Enterprises
PS-16	Construction Sequence and Time Periods
PS-17	Socio Economic Targets

PS.1 GENERAL DESCRIPTION AND SCOPE

The scope of the Works is shown on the drawings which must be read with the remainder of the Contract Documents.

The Works under the Contract shall include the construction of the following facilities:

The installation of a new gravity outfall sewer pipeline from the existing ablution block located in the Robberg Nature Reserve to the nearest existing Bitou municipal sewer network manhole (\pm 800 metre x 160 mm diam uPVC Sewer).

The development will occur partly in the Robberg Nature Reserve, where it will flow from the existing ablution block at the car park, towards the gate of the Reserve. From the gate it will run along the road reserve (DR 1769) outside the Nature Reserve, to the Robberg Estate entrance, which is where the closest Bitou Municipality sewer network manhole is located.

The project would require extensive and detailed co-operation, consultation and communication between all parties. For example Environmental consultant, Cape Nature, Bitou Municipality and the local residents / businesses to ensure all parties are kept informed of the programme and progress of work.

PS.2 DESCRIPTION OF THE SITE AND ACCESS**PS.2.1 Locality**

The site of the Works is shown on the Locality Plan – Project Detail No 1. Robberg is situated approximately 90 km east of George and approximately 200 km west of Port Elizabeth.

PS.2.2 Ownership

The site for the new sewer gravity pipeline is on Cape Nature property as well as Bitou Municipal road reserves.

PS.2.3 Environmental

The EMPr must be implemented and strictly enforced during all phases of the project.

The micro-siting/pegging of the route for the gravity outfall sewer pipeline must be undertaken prior to commencement with construction activities. The final walk-through of the pipeline alignment must be undertaken by a botanical specialist in consultation with the Cape Nature Landscape Conservation Intelligence Unit to identify any protected and endangered plants and trees to be rescued.

A permit must be obtained from the relevant nature conservation agency for the removal or destruction of indigenous, protected or endangered plant or animal species.

Vegetation clearing must be kept to an absolute minimum.

The EMPr, Environmental Specifications and Environmental Authorisation are to be complied with in full for the duration of the contract.

PS.2.4 Access

Access to the site is from the existing municipal roads.

Where the pipeline is located more than 2m away from the existing road, it needs to be constructed by hand and no vehicular access across the vegetation will be permitted.

A maximum construction corridor of 1m is to be permitted. Any minor adjustments to the route must be incorporated within this corridor.

Concrete batching and mixing must be done in the construction site camp (existing parking area) only and carted to the desired area along the pipeline.

PS.2.5 Wayleave applications

Wayleave applications to be acquired from Bitou Municipality and the District Roads Authority prior to construction of road crossings.

PS.2.6 Weather Conditions

Plettenberg Bay has a moderate climate with warm summers and cool winters. The average rainfall for the area is summarized below:

Month	Average Monthly Rainfall (mm)	Average Days per month with more than 10 mm/day Rainfall
January	43	1.6
February	42	1.6
March	48	1.6
April	48	1.6
May	51	1.6
June	48	1.6
July	45	1.6
August	59	2.4
September	58	2.4
October	57	2.4
November	50	1.6
December	43	1.6
TOTAL	593	21.6

Extension of time will only be considered for above average rainfall over the full contract period.

PS.3 NATURE OF GROUND AND SUBSOIL CONDITIONS

The pipeline route of the outfall sewer inside the nature reserve is over a terrain where the rock layers are on the surface or just below the surface.

To minimize the amount of rock excavation the sewer line will be laid as close to surface as possible and be encased in a brick / concrete structure. This method of construction will limit rock excavation to the minimum and covering the structure with stone pitching will make it blend in with the environment.

Adherence to "no-go" and buffer areas is required as well as all regulations with reference to any sensitive environmental features.

PS.4 SITE FACILITIES AVAILABLE**PS.4.1 Services available**

The Contractor must make all his own arrangements with the relevant authorities and pay all costs involved in the provision of temporary services. The Contractor to make his own arrangements to obtain water for construction purposes.

PS.4.2 Labourers

The Contractor must make his own arrangements for housing of labourers. No labourers other than the Security Guards will be allowed to overnight on the Site.

PS.5 SITE FACILITIES REQUIRED**PS.5.1 Location of the Contractor's Camp**

The Contractor will only be allowed to erect construction camps at an approved designated site. The camp must be fenced according to the Contractor's layout requirements for his camp, working space and areas for storage. The position of stockpile areas, which may be allocated outside the fenced area, will be subject to the Engineer's approval. The Contractor must allow for temporary fencing under the item "Establishment of

Facilities on Site" in the Schedules of Quantities. The fence shall be of a minimum 5 strand, 1.5m high construction.

The Contractor is required to submit a detailed drawing to the Engineer showing the proposed positions of site offices, stores, temporary works, fixed constructional plant as well as stockpile areas and fencing for approval before commencing establishment.

PS.5.2 Nameboards

One nameboard conforming to the dimensions and colours as specified under Annexure 2: Detail No. 2 shall be erected at the Site. The Contractor will be permitted to erect his own and subcontractor's nameboards elsewhere on site.

PS.5.3 Telephone Facilities

The Contractor must arrange for adequate telephone or cellular phone communication to and from the site. Allow for all phone charges, rentals, call charges, etc under the appropriate payment items under "GENERAL".

PS.5.4 Tests and Samples

A Provisional Amount has been included under General for laboratory testing which the Engineer may require for quality control. The Provisional Amount for Tests and Samples under General does not include for any testing and samples which are in terms of this Contract the responsibility of the Contractor.

The Contractor must include sufficient time in his Programme for all testing and inspections required in terms of the Contract. Submit to the Engineer for the approval the name of the proposed commercial laboratory that the Contractor intends to use, prior to the laboratory testing of any samples, etc.

The Contractor is responsible for his own detailed and continuous quality control as specified and required in terms of the Contract. The Contractor must allow for all costs connected to transporting, sampling, laboratory testing, inspections, etc as required in the appropriate and relevant items in the Schedule of Quantities.

The Contractor must make his own arrangements for testing and sampling as required in terms of the Contract. The Contractor must supply the Engineer within 24 hours after completion of testing with properly authorised and documented test results. The Contractor are also responsible to keep at the site office proper and specific records of all testing and test results

PS.5.5 Survey Instruments

The Contractor is responsible to supply proper and sufficient survey instruments for his setting out of the works, taking levels, checking, etc. These survey instruments must be kept on site for the duration of the Contract and calibration certificates not older than 6 months must be provided for survey instruments

PS.5.6 Sanitation Facilities

Supply proper and sufficient chemical toilet facilities at all places of work. Service and maintain these facilities for the full duration of the Contract. The Contractor must allow for all costs related to sanitation in the appropriate General payment items.

PS.7 Location of Existing Underground Services

Prior to commencement of construction the Contractor shall make an appointment with the local authority in conjunction with the Engineer to determine the position of all existing services to the satisfaction of the Contractor. The positions of all known existing services are shown on the drawings.

The Contractor shall take all necessary steps to ascertain and confirm the location of existing services before commencing any section of the Works and shall exercise the greatest care when working in the vicinity of such services.

Existing underground services on the Site as shown on the Drawings or pointed out to the Contractor shall be exposed by hand excavation, clearly marked and their positions and levels relative to fixed reference points be recorded on a sketch to be submitted to the Engineer prior to commencing work on the Site.

PS.8 Protection of Existing Services

The Contractor must provide proper and effective measures to ensure the protection of all existing services.

PS.9 Survey Pegs

The Contractor must do his own setting out from pegs of which positions are shown on the drawings and/or pointed out to him by the Engineer in writing. The Contractor will be liable for costs for the replacement of existing pegs by a qualified Land Surveyor appointed by the Engineer, where such pegs are removed or damaged. Where the construction operation is such due to the nature of the Works that pegs will be unavoidable disturbed, the prior agreement of the Engineer must be obtained of their destruction otherwise the Contractor will be held liable for the cost of their replacement.

The micro-siting/pegging of the route for the gravity outfall sewer pipeline must be undertaken prior to commencement with construction activities. The final walk-through of the pipeline alignment must be undertaken by a botanical specialist in consultation with the Cape Nature Landscape Conservation Intelligence Unit to identify any protected and endangered plants and trees to be rescued.

PS.10 "As Built" Drawing

As the Works progress, the Contractor must keep a record of all changes from the drawings issued at the start of the construction phase. The Contractor will be supplied with an extra set of construction drawings for this purpose. The Completion Certificate will not be issued before the "As Built" Drawings have been supplied by the Contractor to the Engineer. No separate payment will be made for this service as it is deemed that all expenses for this service is covered by the rates for the applicable items.

PS.11 Employment of Local Labour and using Labour Intensive Construction Practices

The Contractor shall:

- i. Employ as many unemployed people from Plettenberg Bay as possible work on this Contract. The Contract Conditions require that 100% of the unskilled force for this Contract must be from the unemployed from Municipal area.
- ii. Use as far as possible labour intensive construction methods for the construction of the Works.

PS.12 Applicable Standardized and Particular Specifications

The applicable Standardized Specifications (SABS 1200 series) are listed in this document. It is required that the Contractor shall keep a complete set of the specifications from SABS 1200 that form part of the Contract, on site for the duration of the Contract.

PS.13 Traffic and Safety Control Measures

The Contractor shall provide and properly maintain all barricades, warning signs, notices, lightning, fencing, etc necessary for safety and traffic control of the Works under this Contract.

The Contractor shall be responsible for the safety of all works on the Site. The Contract must allow for all costs related to traffic and safety under the relevant payment items under GENERAL.

PS-14 Occupational Health and Safety (Read with SANS 1921-1:2004 clause 4.14)

PS-14.1 General Agreement

It is requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the OHS Act 1993 Occupational Regulations 2014 issued on 07 February 2014 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act by executing the Agreement form included in Part T2 – Returnable Documents.

PS-14.2 Health and Safety Specifications and Plans to be submitted at tender stage

(a) Employer's Health and Safety Specification

The Employer's Health and Safety Specification is included in the tender documents as part of the Project Specifications.

(b) Tenderer's Health and Safety Plan

The successful Tenderer shall, on receipt of notification that he has been awarded the contract, submit without delay his own documented Health and Safety Plan for the execution of the work under the contract. His Health and Safety Plan must at least cover the following:

- (i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 7 to 28;
- (ii) pro-active identification of potential hazards and unsafe working conditions;
- (iii) provision of a safe working environment and equipment;
- (iv) statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 5*);
- (v) monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation Section 7 also include the appointment of a designer for temporary works that is registered as a technologist or engineer at the Engineering Council of South Africa and other applicable regulations; and
- (vii) details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs.

PS-14.3 Cost of compliance with the OHS Act Construction Regulations

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract. Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

Items that may qualify for remuneration will be specified in the Safety Specifications included or in the Project specifications.

PS-15 Labour Intensive Methods and Use of Local CIDB Subcontractors And EME/QSE Enterprises

Not applicable.

PS-16 Construction Sequence and Time Periods

The construction of the Works must be carried out in a specific sequence to ensure the timeously pre-planning and environmental requirements of the project. Furthermore the labour-intensive methods must be maximized to ensure the maximum benefit for the communities of Plettenberg Bay.

PS-17 Socio Economic Targets

The Main Contractor is responsible to ensure that monthly reports on socio economic targets are submitted to the Employer and the Employer's Agent.

The reporting shall respond to the following principles:

- * Employee contracts
- * Employee Identity Documents
- * Employee Attendance Registers
- * Employee Proof of Payment
- * EME Recruitment Reports

* EME & Local Labour Expenditure Reports

Exempted Micro Enterprises (EME) and/or Qualifying Small Enterprises (QSE) in terms of the Broad-Based Black Economic Empowerment Act (BBBEE).

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE**PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM****Scope****2. List of drawings, schematics & annexures**

The works are to be executed in accordance with the following design drawings, schematic representations and annexures which form part of this contract. The list below indicates which items are included in the Appendix to this document, and which are issued separately due to size or other considerations. It is the responsibility of tenderers to ensure they have obtained and considered all the listed items for preparing their bid, which is the assumption when tenders are evaluated.

Identification	Size	Description	Included in Appendix
Annexure 1	A4	Price List	Yes
Annexure 2	A4	Standard Details Detail 1 – Locality Plan Detail 2 – Name Board Detail 3 – Precast manhole Detail 4 – Rodding Eye Detail 5 – 1m x 1m Safety Board Detail 6 – Typical Pipe Encasement for shallow Line in Rocky Area Detail 7 – Brick Sewer Manhole Detail 8 – Pipe Protection	Yes
Annexure 3	A3	Tender Drawings 8528AG/20 - Site Survey Plan: Contours and Existing Services 8528AG/21 - Site Layout Plan: Gravity Outfall Sewer 8528AG/22 - Ablution Block and Security Office: Upgrading of Sewers: Plan 8528AG/23 - Gravity Outfall Sewer: Plan and Long Section	Yes
Annexure 4	A4	EMPr	Yes
Annexure 5	A4	Health and Safety Specification	Yes

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE**PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM****Scope****3. Specifications, standards and workmanship**

The works are to be executed subject to these specifications, standards and workmanship requirements. Please note that compliance with all these specifications and standards, including requirements in terms of qualifications, accreditation (where applicable) and work experience of both the tendering entity and its key people will be material in the *Client's* risk assessment for awarding this contract.

3.1 Standard Specifications**3.2 Index to Changes to Clauses of Standard Specifications (SABS 1200)****3.3 Changes to Clauses of Standard Specifications****3.1 Standard Specifications**

The standard specifications on which this contract is based are Standards South Africa's Standardized Specifications for Civil Engineering Construction SABS 1200.

Although not bound in nor issued with this Document, the latest editions of the following Sections of the Standardized Specifications of SABS 1200 shall form part of this Contract:

SABS 1200 A	.....	GENERAL
SABS 1200 AB	.....	ENGINEER'S OFFICE
SABS 1200 C	.....	SITE CLEARANCE
SABS 1200 D	.....	EARTHWORKS
SABS 1200 DB	.....	EARTHWORKS (PIPE TRENCHES)
SABS 1200 DK	.....	GABIONS AND PITCHING
SABS 1200 G	.....	CONCRETE (STRUCTURAL)
SABS 1200 LB	.....	BEDDING (PIPES)
SABS 1200 LD	.....	SEWERS

3.2 Index to Changes to Clauses of Standard Specifications (SABS 1200)

PSA GENERAL (SABS 1200 A)

- PSA.1 Value Related Charge (Clause 2.3(c))
- PSA.2 Quality (Clause 3.1)
- PSA.3 Setting Out (Clause 5.1.1)
- PSA.4 Insurance (Clause 8.3.1)
- PSA.5 Compliance with OHS Act and Regulations

PSAB ENGINEER'S OFFICE (SABS 1200 AB)

- PSAB.1 Nameboards (Clause 3.1)
- PSAB.2 Office Building (Clause 3.2)
- PSAB.3 Laboratory
- PSAB.4 Telephone (Clause 5.4)
- PSAB.5 Survey Assistance (Clause 5.5)

PSC SITE CLEARANCE (SABS 1200 C)

- PSC.1 Areas To Be Cleared and Grubbed (Clause 5.1)
- PSC.2 Removal of Topsoil (Clause 5.6)

PSD EARTHWORKS (SABS 1200 D)

- PSD.1 Classification for Excavation Purposes: Classes of Excavation (Clause 3.1.2)
- PSD.2 Selection: General (Clause 3.3.1)
- PSD.3 Precautions: Existing Services (Clause 5.1.2) (Also see PS.7)
- PSD.4 Methods and Procedures: Clearing and Stripping of Site (Clause 5.2.1.1)
- PSD.5 Methods and Procedures: Excavation: Disposal (Clause 5.2.2.3)
- PSD.6 Methods and Procedures: Freehaul (Clause 5.2.5.1)
- PSD.7 Methods and Procedures: Transport for Earthworks: Overhaul (Clause 5.2.5.2)
- PSD.8 Methods and Procedures: Over Excavation around Manholes and Structures

PSDB EARTHWORKS (PIPE TRENCHES) (SABS 1200 DB)

- PSDB.1 Classes of Excavation (Clause 3.1)
- PSDB.2 Precautions: General (Clause 5.1)
- PSDB.3 Precautions: Accommodation of Traffic and Access to Properties (Clause 5.1.3)
- PSDB.4 Precautions: Existing Services That Intersects or Adjoin Trenches (Clause 5.1.4)
- PSDB.5 Minimum Base Width Specified (Clause 5.2)
- PSDB.6 Excavation (Clause 5.4 and 8.3.2(a))
- PSDB.7 Backfilling: Material for Backfilling (Clause 5.6.2)

- PSDB.8 Backfilling: Disposal of material (Clause 5.6.3 and 5.6.4)
- PSDB.9 Compaction: Areas Subject To Traffic Loads (Clause 5.7.2)
- PSDB.10 Scheduled Items: Overhaul (Clause 8.3.3.4)

PSG CONCRETE (STRUCTURAL) (SABS 1200 G)

- PSG.1 Cement: Applicable Specifications (Clause 3.2.1)
- PSG.2 Cement: Storage of Cement (Clause 3.2.3)
- PSG.3 Aggregates (Clause 3.4)
- PSG.4 Formwork: Ties (Clause 4.5.3)
- PSG.5 Reinforcement: Cover (Clause 5.1.3)
- PSG.6 Formwork (Clause 5.2)
- PSG.7 Formwork: Preparation of Formwork (Clause 5.2.2)
- PSG.8 Formwork: Removal of Formwork (Clause 5.2.5)
- PSG.9 Concrete: Quality: Concrete Consistency (Clause 5.5.1.2)
- PSG.10 Concrete: Quality: Durability (Clause 5.5.1.5)
- PSG.11 Concrete: Quality: Concrete: Strength (Clause 5.5.1.7)
- PSG.12 Concrete: Construction Joints (Clause 5.5.7)
- PSG.13 Concrete: Concrete Surfaces (Clause 5.5.10)
- PSG.14 Concrete: Defects (Clause 5.5.14)
- PSG.15 Permissible Deviations (Clause 6.2)

PSLB BEDDING (PIPES) (SABS 1200 LB)

- PSLB.1 Selected Granular Material and Selected Fill Material (Clauses 3.1 and 3.2)
- PSLB.2 Bedding (Clause 3.3)
- PSLB.3 General: Compacting (Clause 5.1.4)
- PSLB.4 Scheduled Items: Provision of Bedding From Trench Excavation (Clauses 8.2.1)
- PSLB.5 Principles: Freehaul (Clauses 8.1.6)

PSLD SEWERS (SABS 1200 LD)

- PSLD.1 Sewer uPVC Pipes (Clause 3.1.5)
- PSLD.3 Manholes (Clause 5.6)

3.3 Changes to Clauses of Standard Specifications (SABS 1200)

PSA GENERAL (SABS 1200 A)

INTERPRETATIONS

PSA.1 Value Related Charge (Clause 2.3(c))

The Employer reserves the right to alter the scope of the work should financial constraints and budget limitations require so. Value-related charge shall have the following meaning:
 "Value related charge: A charge, the amount of which is varied pro-rata to the final value of the measured work executed and valued in accordance with the provision of the Contract"

MATERIAL

PSA.2 Quality (Clause 3.1)

Where applicable all pipes, materials and fittings shall have the SABS mark of approval.

CONSTRUCTION

PSA.3 Setting Out (Clause 5.1.1)

Setting out shall be done from benchmarks and pegs supplied by the Engineer. The Contractor to do a closed survey between bench marks before construction starts and report any discrepancies to the Engineer.

MEASUREMENT AND PAYMENT

PSA.4 Insurance (Clause 8.3.1)

The works shall be insured against political unrest.
 Insurances must be valid and in place until the end of the defect's liability period.

PSA.5 Compliance with OHS Act and Regulations (Including the Construction Regulations 2014 [New Clause]) and Covid-19 Regulations

PSA.5.1 Compliance with OHS Act

The tendered sum shall include full compensation to the Contractor for compliance with all the requirements of the OHS Act and Regulations (including the Construction Regulations 2014) at all times for the full duration of the Contract (See also amplified clause 6(5)(b) on page 3.2 of Conditions of Contract).

Please note that the Contractor must supply proof that the following conditions of the OHS Act and Construction Regulations (2014) has been complied with before construction can start:

- Notification to the Provincial Director (Department of Labour) as required;
- Notification to any other authority as may be required;
- Submission of a project Health and Safety Plan to the Engineer for approval (allow one week for approval).
- The Client's Health and Safety Specification will be issued with the letter of appointment.
- Medicals for workers has been done.

A penalty of R2 500/safety incident which is due to the negligence of the contractor will be subtracted from payments due to the contractor.

**PSAB ENGINEER'S OFFICE (SABS 1200 AB)
MATERIALS**

PSAB.1 Nameboards (Clause 3.1)

Supply one nameboard complying with the recommendations of the South African Association of Consulting Engineer as shown on PROJECT DETAIL No. 2, to be erected at position as indicated by Engineer within 21 days from Notice to Commence with the Works.

PSAB.2 Office Building (Clause 3.2)

The Engineer will make use of the Contractor's site office as and when required. The Engineer does not require a separate office.

PSAB.3 Laboratory

No soil laboratory is required on site under this Contract.

CONSTRUCTION

PSAB.4 Telephone (Clause 5.4)

Provide sufficient telephone or cellular phone services for the duration of the contract on site.

PSAB.5 Survey Assistance (Clause 5.5)

The Contractor must provide as and when required, one semi-skilled and one unskilled assistants for the assistance of the Engineer for the Contract duration. Payment for the services of survey assistant will be made under dayworks.

**PSC SITE CLEARANCE (SABS 1200 C)
CONSTRUCTION**

PSC.1 Areas To Be Cleared and Grubbed (Clause 5.1)

Area of works where new services will be installed.

The width and extent of the site to be cleared will be confirmed by the Engineer in writing.

PSC.2 Removal of Topsoil (Clause 5.6)

Topsoil removal will only be paid for where specifically ordered by the Engineer.

**PSD EARTHWORKS (SABS 1200 D)
MATERIALS**

PSD.1 Classification for Excavation Purposes: Classes of Excavation (Clause 3.1.2)

Intermediate excavations [3.1.2(b)] and boulder excavation Class A [3.1.2(d)] shall be classified as soft excavation [3.1.2(a)] and boulder excavation Class B [3.1.2(e)] shall be classified as hard rock excavation[3.1.2(c)].

PSD.2 Selection: General (Clause 3.3.1)

The Contractor shall take care as not to pollute any useful material from excavations.

CONSTRUCTION

PSD.3 Precautions: Existing Services (Clause 5.1.2) (Also see PS.7)

The Contractor must expose all existing services - before commencement of excavations - shown on drawings or which has been pointed out to him. No additional payment will be made if any of these services are damaged and any direct or consequential cost due to the damage of existing services will be for the contractor's account.

The cost for exposing existing services as per the drawings or as pointed out to the Contractor on site must be covered by the tender rates for crossing services or working parallel with services. Where there is reason to expect the presence of services, other than that covered under the items "crossing existing services" or "working parallel with existing services" payment will be made for the location of such services as per Payment Clause 8.3.8.1 (c).

PSD.4 Methods and Procedures: Clearing and Stripping of Site (Clause 5.2.1.1)

The extend of the site clearing and stripping of topsoil is specified under PSC. 1. Clearing and grubbing shall not include for removal of topsoil unless specifically ordered by the Engineer.

PSD.5 Methods and Procedures: Excavation: Disposal (Clause 5.2.2.3)

Surplus material and material unsuitable for backfill is to be spoiled at an approved Disposal Site as identified by the Contractor.

Excavations are measured to final heights, as shown on the drawings. The cost of backfilling and compaction of material to make up for the over excavation will be borne by the Contractor.

PSD.6 Methods and Procedures: Freehaul (Clause 5.2.5.1)

The freehaul distance within which the Contractor will be required to move material without separate compensation shall be 10.0 km.

PSD.7 Methods and Procedures: Transport for Earthworks: Overhaul (Clause 5.2.5.2)

No overhaul will be paid for material transported to any of the Disposal Sites within the 10.0 km freehaul distance. Prior written approval from the Engineer is in all cases required before any overhaul will be payable.

PSD.8 Methods and Procedures: Over Excavation around Manholes and Structures

The tariff for over excavation must allow for the backfilling and compaction with approved material as specified in PSD.5.

PSDB EARTHWORKS (PIPE TRENCHES) (SABS 1200 DB) MATERIALS

PSDB.1 Classes of Excavation (Clause 3.1)

Intermediate (sub clause 3.1.2 (b) of SABS 1200) shall be classified as soft excavation (sub clause 3.1.2 (a) of SABS 1200 D).

CONSTRUCTION

PSDB.2 Precautions: General (Clause 5.1)

The Contractor must comply and arrange his construction programme in regard to open trenches as follows:

- (i) Not more than 100 metre open trenches at any time of the construction period. Open trenches is define as a trench not backfill completely to natural ground level.
- (ii) Not more than 500 metre of pressure pipelines been laid without the hydraulic pipe tests been done. Hydraulic pipe tests is define as per Clause 7.3 of SANS 1200 L – Medium Pressure Pipelines.

PSDB.3 Precautions: Accommodation of Traffic and Access to Properties (Clause 5.1.3)

Supply, erect and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs and other traffic control devices and take all the necessary precautions for the protection of the work and safety of the public for work areas in road reserve of existing roads. These work shall be carried out in consultation with and to the satisfaction of the Engineer.

PSDB.4 Precautions: Existing Services That Intersects or Adjoin Trenches (Clause 5.1.4)

Before commencing of any trench excavations the Contractor must obtain the positions of existing services from the Drawings, Engineer and the Local Authority. All existing services that are crossed or which are being

dug parallel to must be covered by hand before excavation work starts. The measures prescribed under PSD.3 must be adhered to when working close to existing services. The cost for exposing existing services must be covered by the tender rates for crossing services or working parallel to services.

PSDB.5 Minimum Base Width Specified (Clause 5.2)

The base width of trenches as per Detail drawings.

PSDB.6 Excavation (Clause 5.4 and 8.3.2(a))

All excavations to comply with environmental requirements.

Use appropriate control and construction methods to obtain suitable selected fill material from trench excavations. Select and place suitable fill material separate. The cost for selection of suitable material from trench excavation, including the cost of all labour and equipment, must be included under the unit tariff for trench excavations.

PSDB.7 Backfilling: Material for Backfilling (Clause 5.6.2)

Obtain suitable material for selected fill blanket from trench excavations.

Use material from trench excavations for main fill. Place topsoil material from trench excavations at the top of main fill.

PSDB.8 Backfilling: Disposal of material (Clause 5.6.3 and 5.6.4)

Surplus material and material unsuitable for backfilling is to be spoiled at the approved Disposal Site as identified by the Contractor. The material at the disposal sites must be evenly graded to ensure adequate drainage of the site. The cost thereof must be included in the rates for the pipe trenches and earthworks.

PSDB.9 Compaction: Areas Subject To Traffic Loads (Clause 5.7.2)

All pipeline road crossings are subject to traffic loads.

MEASUREMENT AND PAYMENT

PSDB.10 Scheduled Items: Overhaul (Clause 8.3.3.4)

No overhaul will be paid for surplus material from trench excavations or for material unsuitable for backfill transported to be spoiled to the disposal sites within the freehaul distance of 10.0 km.

PSG CONCRETE (STRUCTURAL) (SABS 1200 G) MATERIALS

PSG.1 Cement: Applicable Specifications (Clause 3.2.1)

No ordinary Portland Cement with a Sodium monoxide content (calculated as $\text{Na}_2\text{O} + 0,658 \text{K}_2\text{O}$) that exceeded 0,6% may be used in reinforced concrete, unless it is used together with an approved coarse aggregate that has through testing proved that it is non-reactive towards a potential alkali-aggregate reaction. Sulphate resistant or Low Alkaline Portland Cement that complies to the above criteria may be used with any approved aggregate.

Supply all cement of a specific type from a single source for the duration of the contract.

PSG.2 Cement: Storage of Cement (Clause 3.2.3)

Cement may not be stored for periods of longer than 10 weeks without the Engineer's approval.

PSG.3 Aggregates (Clause 3.4)

Fine and coarse Aggregate must comply to the requirements of SABS 1083.

Fine aggregate must be clean silicate sand that occurs naturally. The broken shell content as determined by SABS Method 840 may not exceed 30% by mass.

The coarse aggregate must all remain on the 4,75 mm sieve, the dust content excluded. The maximum dust allowed content will be 0,5% by mass. The flakiness index determined as per SABS Method 847 may not exceed 30% for 26,5 mm aggregate and 25% for 19,0 mm aggregate.

The 10 percent "FACT" minimum value for the coarse aggregate must be the value of the concrete subjected to surface friction.

The use of "Plums" will not be allowed in any strength concrete.

PLANT

PSG.4 Formwork: Ties (Clause 4.5.3)

NEC4 Standalone ECSC4 – 16B V1.05

Limit the quantity of ties through walls to a minimum by using formwork systems with large tie spacing. In walls, use trough ties that can be pulled out after concrete has been cast. Drill tie sleeves out, sandblast the tie holes and fill and ram the holes with an approved non-shrink watertight cement grout. Non-through ties that are approved for other elements than walls must be supplied with the minimum cover as prescribed for concrete. Sandblast the holes and fill it immediately with an approved epoxy grout.

CONSTRUCTION

PSG.5 Reinforcement: Cover (Clause 5.1.3)

Tie wires that are used to secure reinforcement must be tied tightly around bars at the bar crossings and with cut-off ends bend to the inside. A nominal decrease in the cover of 3 mm will be allowed for the tie wire. The minimum concrete cover in all cases will be 40 mm unless shown otherwise on the drawings.

PSG.6 Formwork (Clause 5.2)

Provide all exposed corners of walls, beams, slabs and any other concrete elements that are not covered by backfilling with 20 x 20 mm chamfers. All concrete that is exposed requires a smooth formwork finish, while concrete below backfill requires a rough finish formwork.

The repair of deficiencies for concrete with a smooth finish must include for a filling of air bubbles where the dimensions of bubbles are larger than 10 mm.

Full payment for formwork will only be made when concrete has been finished off to the required standard. No formwork is measured or paid for blinding layers and strip foundations.

PSG.7 Formwork: Preparation of Formwork (Clause 5.2.2)

All formwork must be treated with a releasing agent that complies to the prescribed surface finish. Submit details of the releasing agent to the Engineer before using it on site.

PSG.8 Formwork: Removal of Formwork (Clause 5.2.5)

Remove formwork at the earliest possible stage as is allowed for under Table 2 with due consideration of the climatic conditions and temperatures, in order to restrict temperature increases due to hydration in the concrete to a minimum.

PSG.9 Concrete: Quality: Concrete Consistency (Clause 5.5.1.2)

Provide a standard slump cone with a baseplate and ram rod on site. Standard slump tests must be performed at regular intervals as part of the control to ensure the provision of a good quality concrete. Slumps must comply to Table 3, except for slabs that may have a slump of 60 mm.

PSG.10 Concrete: Quality: Durability (Clause 5.5.1.5)

No reinforced concrete that are exposed or that forms a part of a water retaining element may have a water content that are more than the smallest value as indicated in Table 5 for concrete mixes for Severely Exposed Conditions, or be greater than 0,50.

PSG.11 Concrete: Quality: Concrete: Strength (Clause 5.5.1.7)

Strength concrete must be provided according to the general notes as described on the drawings. Design the mix proportions of strength concrete to provide a workable, non-bleeding, non-segregating mix with an average concrete strength of that of the prescribed cube strength plus 1,64 times the standard deviation.

Assume that the level of control over the concrete batching will be such that the standard deviation at the beginning of the contract will be 0,182 times the prescribed cube strength. The target strength of the design mix will therefore be 1,30 times the prescribed cube strength.

Any mix that shows a tendency to bleed after placement must be adjusted to restrict bleeding so as to ensure that concrete curing of horizontal and slanted surfaces can be practically be achieved.

PSG.12 Concrete: Construction Joints (Clause 5.5.7)

Where applicable provide construction joints at positions as indicated on the drawings.

PSG.13 Concrete: Concrete Surfaces (Clause 5.5.10)

Concrete surfaces such as blinding, granolite and benching must be finished off with a straight edge to provide a reasonable finish. This finish is not measured or paid separately but is part of the rate of the concrete.

- (i) Wood Finish

Where a wood float finish is specified or listed, the surface must be finished off as specified in sub clause 5.5.10.1 of SABS 1200G, and after the concrete had sufficiently hardened, the concrete must then be finished off to form a uniform surface that are free of trowel marks. The finished surface must only be floated to the extend as to provide uniform surface finish.

(ii) Steelfloat finish

Where a steelfloat finish has been specified or listed, the surface must be prepared in the same manner as for a wood float finish, except that after the moisture layer has disappeared and the concrete has sufficiently hardened to avoid the movement of cement foam at the surface, the surface must then be floated with a steelfloat on which only sufficient pressure is exerted to ensure a dense, smooth and uniform surface that is free from trowel marks.

PSG.14 Concrete: Defects (Clause 5.5.14)

Any deficiencies in the concrete or surface finishes must be inspected by the Engineer immediately after the formwork has been removed. Where repair work is prescribed, this must be strictly done according to the Engineer's instruction.

TOLERANCES

PSG.15 Permissible Deviations (Clause 6.2)

Reinforced concrete elements must be finished off to the permissible deviation Level 2, except for diameter dimensions that may not be smaller than is shown on the drawings.

**PSLB BEDDING (PIPES) (SABS 1200 LB)
MATERIALS**

PSLB.1 Selected Granular Material and Selected Fill Material (Clauses 3.1 and 3.2)

Obtain the Engineer's written approval for all bedding material before commencing with the placing of any bedding material.

PSLB.2 Bedding (Clause 3.3)

All pipes are to be regarded as flexible for bedding purposes. Class B bedding is to be used throughout. Bedding may be varied by written instruction from the Engineer, but unless otherwise instructed, the calculation of quantities for payment of bedding will be determined from the dimensions as indicated below.

<input type="checkbox"/> Bed	:	100 mm
<input type="checkbox"/> Cover (above crown)	:	200 mm

CONSTRUCTION

PSLB.3 General: Compacting (Clause 5.1.4)

The degree of compaction required for bedding will be 93% Modified AASHTO density. (100% for sand)

MEASUREMENT AND PAYMENT

PSLB.4 Scheduled Items: Provision of Bedding From Trench Excavation (Clauses 8.2.1)

Obtain the Engineer's written approval prior to the acquiring of bedding from a specific source. Bedding material acquired within a 5 meter radius from the trench excavation is covered by the rate for the supply and laying of pipelines, which include the costs of handling bedding from alongside the trench and placing it under and around the pipeline.

PSLB.5 Principles: Freehaul (Clauses 8.1.6)

No overhaul shall apply to material obtained from commercial sources or to material obtained from off-site borrow pit.

**PSLD SEWERS (SABS 1200 LD)
MATERIALS**

PSLD.1 Sewer uPVC Pipes (Clause 3.1.5)

All sewer pipes to be uPVC Class 34 (Heavy Duty).

CONSTRUCTION

PSLD.3 Manholes (Clause 5.6)

Construct sewer manholes as per the Project Details. Care is to be taken to ensure that all manholes are watertight.

Heavy duty concrete covers and frames are to be used throughout. A galvanized steel channel must be provided to prevent splitting of concrete.

Fibre-cement or uPVC split sections as channels in manholes to be used throughout to form the flow path in the benching.

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Scope

4. Constraints on Providing the Works

- Area of Site Establishment remains the responsibility of the Contractor together with the storage facility for the on-site materials. No materials to be left anywhere else on site.
- Contractor to use his own Ablutions
- Hours of work will be 07h00-17h00 subject to noise levels.
- Any works to be undertaken outside of normal working hours will require permission in advance from the Employer.
- Management of Noise levels to minimise disturbance during working hours will be required.
- Contractor and all sub contractors to provide identification and company name at the entrance gate to gain access to the site.

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Scope

5. Requirements for the programme

- 5.1 The *Contractor* submits a first programme to the *Client* for acceptance within **two weeks** of access to the *site*.
- 5.2 The *Contractor* shows on each programme which he submits for acceptance
- the starting date, access date/s and the Completion Date,
 - planned Completion,
 - the order and timing of the operations which the *Contractor* plans to do in order to Provide the Works,
 - the order and timing of the work of the *Client* and others as last agreed with them by the *Contractor* or, if not so agreed, as stated in this Scope,
 - the dates when the *Contractor* plans to complete work needed to allow the *Client* and others to do their work,
 - provisions for
 - float,
 - time risk allowances,
 - health and safety requirements and
 - the procedures as set out in this contract,
 - the dates when, in order to Provide the Works in accordance with this programme, the *Contractor* will need
 - access to a part of the site if later than its access date,
 - acceptances,
 - Plant and Materials and other things to be provided by the *Client* and,
 - information from others,
 - for each operation, a statement of how the *Contractor* plans to do the work identifying the principal Equipment and other resources which he plans to use and
 - other information which this Scope requires the *Contractor* to show on a programme submitted for acceptance.
- 5.3 Within two weeks of the *Contractor* submitting a programme to him for acceptance, the *Client* either accepts the programme or notifies the *Contractor* of his reasons for not accepting it. A reason for not accepting a programme is that
- the *Contractor's* plans which it shows are not practicable,
 - it does not show the information which this contract requires,
 - it does not represent the *Contractor's* plans realistically or
 - It does not comply with the Scope.
- 5.4 When revising the programme, the *Contractor* shows on each revised programme
- the actual progress achieved on each operation and its effect upon the timing of the remaining work,
 - the effects of implemented compensation events,
 - how the *Contractor* plans to deal with any delays and to correct notified Defects and
 - any other changes which the *Contractor* proposes to make to the currently accepted programme.
- 5.5 The *Contractor* submits a revised programme to the *Client* for acceptance
- within the period for reply after the *Client* has instructed him to,
 - when the *Contractor* chooses to and, in any case,
 - at no longer than an interval of every four weeks from the *starting date* until Completion of the whole of the works.
- 5.6 Acceptance of any programme where anticipated Completion is shown to be later than the Completion Date, does not alter the Completion Date nor negate the *Contractor's* liability for *delay damages*.

- 5.7 All compensation event claims for events arising after the Completion Date which would not have had any effect if the contract had been completed by the Completion Date, remain the *Contractor's* risk.
- 5.8 All float in the programme shall be available for the *Client's* benefit to absorb delays to the Completion Date, except for termination float (if any) in the programme. Termination float is the final portion of float in a programme where anticipated Completion is shown to be earlier than the Completion Date.

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

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Scope

6. Services and other things provided by the Client

The Contractor must make all his own arrangements with the relevant authorities and pay all costs involved in the provision of temporary services. The Contractor to make his own arrangements to obtain water for construction purposes.

- No Water and Electricity will be provided by the Employer.
- The Contractor must provide portable Ablutions at his own cost and maintain these at a high level of cleanliness.
- Contractor must provide their own Security during working hours and after hours.

**THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM**

Scope

SCHEDULE 11: Amendments by Contractor

The tenderer should record any amendments (i.e deviations, qualifications, alterations or modifications) he may wish to make to the tender documents in this Schedule. Alternatively, a tenderer may state such amendments in a covering letter and append such letter to this Schedule.

The tenderer's attention is drawn to clause C.3.8 of the Standard Conditions of Tender referenced in the Tender Data regarding the *Client's* handling of material deviations and qualifications. If no amendments are allowed for this tender, clause C.3.8 will state so and same would also be indicated in the table below. If amendments are allowed but none desired by the tenderer, this Schedule is to be marked NIL in the table below.

IMPORTANT: No alternative tender will be considered unless a tender free of qualifications and strictly on the basis of the Tender Documents is also submitted.

PAGE / ITEM	CLAUSE / DESCRIPTION

(If not enough space, attach additional pages. If no amendments are desired, mark NIL.)

AUTHORISED SIGNATURE OF TENDERER AS PER SCHEDULE 1 (TENDER OFFER SIGNATURE AND AUTHORITY OF SIGNATORY) OF THIS DOCUMENT SERVES AS SIGNATURE FOR THIS SCHEDULE

Number of additional pages appended by the tenderer to this Schedule:(If nil, enter NIL).

**THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM**

Scope

SCHEDULE 12: Contractor's Equipment schedule

The tenderer must furnish the details of the Equipment required for the execution of this contract. The tenderer must differentiate, where applicable, between Equipment immediately available, Equipment which will become available by virtue of outstanding orders, and Equipment to be acquired or hired for the works should the tenderer be awarded the contract.

EQUIPMENT DESCRIPTION (Type, size, capacity, etc)	AVAILABLE (A) ON ORDER (O) HIRED (H)	NUMBER OF

(Append separate page if not enough space, or enter NIL if nil)

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THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Scope

SCHEDULE 13: Contractor's schedule of subcontractors

The tenderer hereby notifies the *Client* of his intention to use the following subcontractors for work in this contract. Acceptance of this tender does not constitute approval of all or any of the listed subcontractors by the *Client*. Should any of the subcontractors not be approved subsequent to acceptance of this tender, this in no way invalidates this tender, and the tendered unit rates for the various items of work remain final and binding, even in the event of a subcontractor not listed below being approved by the *Client*.

WORK TYPE OR CATEGORY	SUBCONTRACTOR (Name, address, contact person, phone, fax, organisation details, experience)	WORK ITEMS (As per bill of quantities)	ESTIMATED COST
TOTAL SUBCONTRACTED AMOUNT (Excluding VAT)			R

(Append separate page if not enough space, or enter NIL if nil)

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THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Scope

SCHEDULE 14: Contractor’s proposed work programme

The tenderer must append a proposed work breakdown and programme, reflecting the proposed sequence and rate of execution of the various activities comprising the work for the contract, to this schedule page.

This programme must be in the form of a sufficiently detailed bar chart (Gantt chart) or similar acceptable time/activity form as per the Scope reflecting the proposed sequence and rate/duration of the various activities and the quantities of work that will be carried out every week under each of the items comprising the work scope for this contract. Working hours for the execution of this contract must be indicated, and the programme must clearly indicate project milestones where applicable and the critical path of the activities through the work schedule.

The tenderer must take into account all requirements as per the project specifications referenced in the Contract Data of this document when drawing up the programme.

Details of the Contractor’s proposed work programme must be appended to this Schedule.

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THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Scope

SCHEDULE 15: Contractor’s health & safety plan

Tenderers are to note the requirements of the Occupational Health and Safety (OHS) Act No. 85 of 1993 and the Construction Regulations 2014 (as amended) issued in terms of Section 43 of the Act. The tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the Contractor shall submit a detailed Health and Safety Plan in respect of the Works in order to demonstrate the necessary competencies and resources to perform the Works all in accordance with the Act and Regulations. The Health and Safety Plan shall cover inter-alia the following details:

- The safety management structure including the names of all designated persons such as the construction supervisor and any other competent persons;
- Safety method statements and procedures to be adopted to ensure compliance with the OHS Act.

Aspects to be dealt with shall be in accordance with the Client’s Health and Safety specification as issued, which may include inter alia the following:

- Public vehicular and pedestrian traffic accommodation measures;
- Control of the movement of construction vehicles;
- The storage and use of materials;
- The use of tools, vehicles and plant;
- Temporary support structures;
- Dealing with working at height;
- The use of batch plants;
- Excavation work;
- Demolition work;
- Security, access control and the exclusion of unauthorised persons.
- The provision and use of temporary services;
- Compliance with way leaves, permissions and permits;
- Safety equipment, devices and clothing to be employed;
- Emergency procedures;
- Provision of welfare facilities;
- Induction and training;
- Provision and maintenance of the health and safety file and other documentation;
- Arrangements for monitoring and control to ensure compliance with the safety plan.

Tenderers are to note that the Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract also comply with the above requirements.

The Contractor’s detailed Health and Safety Plan must be appended to this Schedule. The Contractor will only be given access to start work after approval of his detailed Health and Safety Plan, which must be submitted to the Client within 3 weeks after award of this contract.

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**THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM**

Scope

SCHEDULE 16: Contractor’s environmental management plan

Tenderers are to note and fully comply with the requirements of the EMPr as per Annexure 4.

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**THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM**

Scope

Pro Forma Performance Guarantee (Performance Bond)

To: Western Cape Nature Conservation Board T/A CapeNature
PGWC Shared Services
Centre cnr Bosduif & Vostruis
Str Bridgetown, Gatesville
7764

Sir,

PERFORMANCE GUARANTEE FOR THE EXECUTION OF A CONTRACT IN TERMS OF ADDITIONAL CLAUSE Z8 OF THE NEC4 ENGINEERING AND CONSTRUCTION SHORT CONTRACT (ECSC4) JUNE 2017.

1 With reference to the contract between

.....
(hereinafter referred to as the "Contractor") and the the Western Cape nature conservation board t/a Capenature, (hereinafter referred to as the "Client"), **Tender No: WCNCB 09/10/2024**, for **Project: PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM** (hereinafter referred to as the "Contract")
in the amount of R, (in words

.....)
(hereinafter referred to as the "Contract Sum"),

I / We,

in my/our capacity asand hereby representing

.....
(hereinafter referred to as the "Guarantor")

advise that the Guarantor holds at the Client's disposal the sum of R,

(in words)
being ten (10) % of the Contract Sum (excluding VAT), for the due fulfilment of the Contract.

- 2 The Guarantor hereby renounces the benefits of the exceptions *non numeratae pecunia; non causa debiti; excussionis et divisionis*; and all other exceptions which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the Client the amount guaranteed, during the period when the claim is received by the Guarantor, on receipt of a written demand from the Client to do so, and which demand the Client may make if the Client has a right of recovery against the Contractor.
- 3 Subject to the above, but without in any way detracting from the Client's rights to adopt any of the procedures provided for in the Contract, the said demand can be made by the Client, at any stage prior to the expiry of this guarantee.
- 4 The amount paid by the Guarantor in terms of this guarantee may be retained by the Client on condition that upon the issue of the last final payment certificate, the Client shall account to the Guarantor showing how this amount has been expended and refund any balance due to the Guarantor.

- 5 The *Client* shall have the absolute right to arrange his affairs with the *Contractor* in any manner, which the *Client* deems, fit and the Guarantor shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the Guarantor. Without derogating from the foregoing, any compromise, extension of the construction period, indulgence, release or variation of the *Contractor's* obligation shall not affect the validity of this guarantee.
- 6 This undertaking is neither negotiable nor transferable, and
 - 6.1 must be surrendered to the Guarantor at the time when the *Client* accounts to the Guarantor in terms of clause 4 above, or
 - 6.2 shall lapse 2 (two) weeks after the date of Completion of the whole of the works, and
 - 6.3 shall not be interpreted as extending the Guarantor's liability to anything more than payment of the amount guaranteed

SIGNED AT **ON THIS** **DAY OF**
 **20**.....

AS WITNESSES

By and on behalf of

- 1.
- 2.

.....
(insert the name and physical address of the guarantor)

NAME:.....

CAPACITY:.....
(duly authorised thereto by resolution attached marked Annexure A)

DATE:.....

- A. No alterations and/or additions of the wording of this form will be accepted.**
- B. The physical address of the guarantor must be clearly indicated and will be regarded as the guarantor's *domicilium citandi et executandi*, for all purposes arising from this guarantee.**
- C. This GUARANTEE must be returned to:**.....

Guarantor's seal or stamp

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Part C4: Site Information	
Site Information	Page 94

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

Site Information

Description of the Site

Description of the Site is included under General Description and Scope as per Clause PS.1

Refer also to Annexure 2 – Standard Details and Annexure 3 - Tender Drawings.

THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE**PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM****Appendix: Drawings, schematics & annexures**

The Appendix to this contract is a separate document, independent of the main contract document (this document) and does not follow, or integrate with, the page numbering sequence of the main contract document. The Appendix may contain the **Price List** as well as drawings, schematics and annexures ("items") which are referenced in this document, and which are indicated as included in the Appendix.

PLEASE NOTE:

ALL items which are referenced in the main contract document form part of the complete contract documentation for this contract, irrespective of whether they are physically included in the Appendix or not. It is the responsibility of the tenderer to ensure he acquires and considers all the items referenced in this document in the preparation of his tender, which is the assumption when tenders are evaluated.

The Appendix consists of a total of **132** pages of various sizes and orientation, as a separate document.

Identification	Size	Description	Included in Appendix
Annexure 1	A4	Price List	Yes
Annexure 2	A4	Standard Details Detail 1 – Locality Plan Detail 2 – Name Board Detail 3 – Precast manhole Detail 4 – Rodding Eye Detail 5 – 1m x 1m Safety Board Detail 6 – Typical Pipe Encasement for shallow Line in Rocky Area Detail 7 – Brick Sewer Manhole Detail 8 – Pipe Protection	Yes
Annexure 3	A3	Tender Drawings 8528AG/20 - Site Survey Plan: Contours and Existing Services 8528AG/21 - Site Layout Plan: Gravity Outfall Sewer 8528AG/22 - Ablution Block and Security Office: Upgrading of Sewers: Plan 8528AG/23 - Gravity Outfall Sewer: Plan and Long Section	Yes
Annexure 4	A4	EMPr	Yes
Annexure 5	A4	Health and Safety Specification	Yes

SUMMARY OF BILL OF QUANTITIES

SECTION	DESCRIPTION	AMOUNT
SABS 1200A	GENERAL	
SABS 1200C	SITE CLEARANCE	
SABS 1200DB	EARTHWORKS (PIPE TRENCHES)	
SABS1200DK	GABIONS AND PITCHING	
SABS 1200LB	BEDDING (PIPES)	
SABS 1200LD	SEWERS	
SABS 1200LG	PIPE JACKING	
Sub Total		
Allow 10% Contingencies Provisional Sum to be expended only as the Engineer may direct		
Sub Total		
Value Added Tax 15%		
Total including VAT Carried to Form of Tender		

SABS 1200A: GENERAL

Item No.	Clause No.	Item Description	Unit	Tender Quantity	Rate	Tender Amount
	8.3	FIXED CHARGE AND VALUE RELATED ITEMS				
1	8.3.1	Contractual Requirements (Sum)	Sum	1		
2	8.3.1	Political Riot Insurance (Sum)	Sum	1		
3	8.3.2	Establishment of Facilities on the Site (Sum)	Sum	1		
4	8.3.2.1	Facilities for Engineer (SABS 1200 AB) (Sum)	Sum	1		
5	PSAB.1	Nameboard as per Detail No 2 (1 No) (Sum)	Sum	1		
6		Safety Board as per Detail No 5	No	1		
	8.3.2.2	Facilities for Contractor:				
7		Office and Storage sheds (Sum)	Sum	1		
8		Workshops (Sum)	Sum	1		
9		Laboratories (Sum)	Sum	1		
10		Living accommodation (Sum)	Sum	1		
11		Ablution and latrine facilities (Sum)	Sum	1		
12		Tools and equipment (Sum)	Sum	1		
13		Water supplies, electric power and communications (Sum)	Sum	1		
14		Dealing with water (Sum)	Sum	1		
15		Access (Sum)	Sum	1		
16		Plant (Sum)	Sum	1		
17	8.3.3	Other fixed charge obligations (Sum)	Sum	1		
18	8.3.4	Remove Engineer's and Contractor's Site establishment on completion (Sum)	Sum	1		
		Health and Safety:				
19	PSA.5, PS.14 and C3.3.1	General safety obligations, implementation and maintenance of health and safety plan, risk assessments, construction safety officer, appointments, auditing, medical certificates and all costs of complying with current Occupational Health and Safety legislation and Health and Safety Specification.	Sum	1		
20	PS.11 & PS.16	Compliance with Labour Intensive Methods and use of Local CIDB Subcontractors and EME / QSE Enterprises.	Sum	1		
		Environmental Management:				
21	PS.2.3	General environmental obligations, implementation and maintenance of environmental plan, environmental control officer, appointments, auditing and all costs of complying with Environmental Management Specification, Water Use License and Record of Decision.	Sum	1		
	8.4	TIME RELATED ITEMS				
22	8.4.1	Contractual Requirements	Sum	1		
23	8.4.2	Operate and maintain facilities on the Site	Sum	1		
	8.4.2.1	Facilities for Engineer for duration of construction (SABS 1200 AB)				
24		Office and nameboard	Sum	1		
	8.4.2.2	Facilities for Contractor for duration of construction				
25		Offices and storage sheds	Sum	1		
26		Safety Board as per Detail No 5	No	1		
27		Workshops	Sum	1		
28		Laboratories	Sum	1		
29		Living accommodation	Sum	1		
30		Ablution and latrine facilities	Sum	1		
31		Tools and equipment	Sum	1		
32		Water supplies, electric power and communications	Sum	1		
33		Dealing with water	Sum	1		
34		Access	Sum	1		
35		Plant	Sum	1		
36	8.4.3	Supervision for duration of construction	Sum	1		

37	8.4.4	Company and head office overhead costs for the duration of the contract	Sum	1		
38	8.4.5	Other time-related obligations	Sum	1		

		Health and Safety:				
39	PSA.5, PS.14 and C3.3.1	General safety obligations, implementation and maintenance of health and safety plan, risk assessments, construction safety officer, appointments, auditing, medical certificates and all costs of complying with current Occupational Health and Safety legislation and Health and Safety Specification.	Sum	1		
		(Note that a R2 500 penalty will apply for each safety incident which is due to negligence by the Contractor).				
40	PS.11 & PS.16	Compliance with Labour Intensive Methods and use of Local CIDB Subcontractors and EME / QSE Enterprises.	Sum	1		
		Environmental Management:				
41	PS.2.3	General environmental obligations, implementation and maintenance of environmental plan, environmental control officer, appointments, auditing and all costs of complying with Environmental Management Specification, Water Use License and Record of Decision.	Sum	1		
	8.8.2	ACCOMMODATION OF TRAFFIC				
42	PS.13 & PSDB.3	Accommodate traffic, including all traffic signs for full duration of the contract at the locations where work will be undertaken. Allow for 2 x full time flagmen when working in the road reserve as well as sufficient road signs.	Sum	1		
	8.8.4. & PS.7	EXISTING SERVICES				
43	8.8.4.C)	Excavation by hand in soft material to locate existing services	m ³	30		
44		Extra over for hard rock	m ³	5		
	8.5	SUMS STATED PROVISIONALLY BY ENGINEER				
		For work to be done by others:				
45		For Laboratory Testing (sum)	Sum	1	30,000.00	30,000.00
46		Overheads charges and profit on item 44 above	%		30,000.00	
47	PS.10	Supply As Built invert levels and position of new pipeline at all grade chainages (chainage and invert level) on marked-up As Built Construction Drawings (8.0 km long).	Sum	1		
48	PS.2.5	Wayleaves: The Contractor is to apply for the necessary way leaves from the relevant Authorities i.e. Municipality, Telkom, Eskom and from the Provincial Roads Department prior to any construction.	Sum	1		
	8.7	<u>DAYWORK:</u>				
		<u>NOTE:</u>				
		(i) All rates to be Gross (Mark up, profits under overheads, etc, and all requirements listed in Item 8.7 included)				
		(ii) The Tenderer must state the capacity of the Plant that his rate is based on.				
		(iii) Dayworks will apply in quantities. Clause 40 of the General Conditions of Contract limiting increases in quantities and/or any subitems will not apply in dayworks				
		(iv) Standing time will be taken as 2/3 of the Rate				
		<u>PLANT</u>				
49		Excavator: 58 kW min	hr	5		
50		Excavator: 95 kW min	hr	10		
51		Bulldozer: D7 (approx 145 kW)	hr			Rate Only
52		Front end loader (min 2 cub.m bucket)	hr			Rate Only
53		Pneumatic self propelled roller (14 tons)	hr			Rate Only
54		Vibrating self-propelled roller (7 - 12,5 tons)	hr			Rate Only
55		Compactor (PAN)	hr			Rate Only
56		Water cart (9000 liter)	hr			Rate Only
57		Tip-up truck (5 - 7 ton)	hr	5		
58		Bakkie (1 ton)	km	50		
59		Grader (Cat 120g or similar)	hr			Rate Only
		<u>LABOUR</u>				
60		Site Foreman	hr	5		
61		Trade Foreman	hr	5		

62		Supervisor	hr	5		
63		Artisan	hr	5		
64		Operator	hr	5		
65		Gang Boss	hr	5		
66		Leading Hand	hr	5		
67		Survey Assistant	hr	5		
68		Labourer	hr	50		

		MATERIAL				
69		Cement (50 kg)	bag	10		
70		Building Sand	m ³	2		
71		Crushed Stone (19 mm)	m ³	2		
72		Bricks (ROK's)	1000	2		

TOTAL CARRIED TO SUMMARY

SABS 1200C: SITE CLEARANCE

Item No.	Clause No.	Item Description	Unit	Tender Quantity	Rate	Tender Amount
	8.2.1	Clear and Grub				
1	PSC.1	Outside Reserve: Clear and Grub 3m strip along pipeline route (minimal vegetation to be removed)	m	370		
2	PSC.1	Within Reserve: Clear and Grub strip along pipeline route (minimal vegetation to be removed) - Vegetation to be cleared/pruned by hand. A maximum of 0.5m either side of the pipe trench may be cleared for working area.	m	440		
3		Remove and reinstate fencing at pipe crossings	m	10		
4		Remove stays for telephone or electric poles and provide temporary stay while work is in progress and re-install stay on completion	No	2		

TOTAL CARRIED TO SUMMARY

SABS 1200DB: EARTHWORKS (PIPE TRENCHES)

Item No.	Clause No.	Item Description	Unit	Tender Quantity	Rate	Tender Amount
	8.3.2 a)	Excavation				
	PSDB.1	Excavate in all materials for trenches, backfill, compact, and dispose of surplus material within the freehaul distance of 10km for pipes up to and including 250mm diameter for depths:				
		Within Reserve: Trenches 600mm wide to accommodate encased pipes as per Detail 6 up to 160mm in diameter (Hand excavation and mini excavator only):				
		Over and up to				
1		0.5m 1.0m	m	280		
		Within Reserve: Trenches 750mm wide to accommodate pipes up to 160mm in diameter (Hand excavation and mini excavator only):				
		Over and up to				
2		0.5m 1.0m	m	130		
3		1.0m 2.0m	m	20		
4		2.0m 3.0m	m	10		
		Outside Reserve: Trenches 750mm wide to accommodate pipes up to 160mm in diameter (Machine excavation):				
		Over and up to				
5		0.5m 1.0m	m			Rate only
6		1.0m 2.0m	m	240		
7		2.0m 3.0m	m	75		
8		3.0m 4.0m	m	55		
	8.3.2 b)	Extra-over items 1 to 4 above for				
9	2)	Hard rock excavation - to spoil up to 5km (provisional)	m ³	120		
10	8.3.2c)	Excavate unsuitable material from trench bottom and main trench and disposes of spoil as ordered (provisional) (up to 5km)	m ³	50		
	8.3.2 b)	Extra-over items 5 to 8 above for				
11	2)	Hard rock excavation - to spoil up to 5km (provisional)	m ³	40		
12	8.3.2c)	Excavate unsuitable material from trench bottom and main trench and disposes of spoil as ordered (provisional) (up to 5km)	m ³	10		
	8.3.3	Excavation Ancillaries:				
	8.3.3.3	Compaction in road reserves				
13		Compaction in road reserves to 95% of MOD AASHTO	m ³	50		
		Importation of material from commercial sources				
14	8.3.3.1 c)	Extra-over item 13 above, for the importation of G7 material where the backfill material available from trenches are not suitable. Including importation, placing, spreading and compacting of material to 95% MOD AASTHO (provisional)	m ³	40		
	8.3.5.1	Services that intersect a trench				
16	PS.8	Water pipe and erf connections	No	2		
17		Telephone or electrical cable (underground)	No	2		

18		Telephone or electrical cable (overhead)	No	2		
19		Stormwater pipes	No	2		
	8.3.5.2	<u>Services that adjoin a trench</u>				
20	PS.8	Water pipe and erf connections	m	20		
21		Telephone or electrical cable (underground)	m	20		
22		Telephone or electrical cable (overhead)	m	20		
23		Stormwater pipes	m	20		

	8.3.6	Finishing				
	8.3.6.1	Reinstate road surfaces complete with all courses from commercial sources				
24	a)	Gravel road: 150mm wearing course 200mm G5 subbase	m ²			Rate only
25	b)	Asphalt road: 30mm premix Colprime E or similar approved primer 150mm G2 material compacted to 98% MOD AASHTO 150mm G5 material to 95% MOD AASHTO	m ²			Rate only
26	b)	Asphalt road: 30mm premix Colprime E or similar approved primer Soilcrete (measured aswhere)	m ²	50		Rate only
27	c)	Brick paved road: Reuse existing brick pavers previously removed 20mm sand 150mm C4 cemented material compacted to 98% MOD AASHTO 150mm G5 material compacted to 95% MOD AASHTO	m ²	25		
28	c)	Reinstate 200x150mm cast in-situ concrete road restraint using class 20/19 concrete	m	20		
29	d)	Soilcrete	m ³	20		Rate only
	8.3.7	Accommodation of traffic				
		Allow for all costs (traffic signes, safety, flag men, traffic control etc) for the road crossings of sewer on the following roads:				
30		Divisional Road DR	Sum	1		
31		Minor Road OP	Sum	1		

TOTAL CARRIED TO SUMMARY

SABS1200DK: GABIONS AND PITCHING

Item No.	Clause No.	Item Description	Unit	Tender Quantity	Rate	Tender Amount
	SABS 1200 DK	GABIONS AND PITCHING				
	8.2.5	PITCHING				
1		Plain pitching	m ²			Rate Only
2		Light grouted pitching to pipe encasement detail as per Detail No. 6	m ²	530		

TOTAL CARRIED TO SUMMARY

SABS 1200LB: BEDDING (PIPES)

Item No.	Clause No.	Item Description	Unit	Tender Quantity	Rate	Tender Amount
	8.2.2.3	From commercial sources				
1	a)	Selected granular material	m ³	110		
2	b)	Selected fill material	m ³	57		
3		15MPa Concrete bedding (Provisional)	m ³	5		
		Bedding for wet conditions below pipe (provisional):				
4		13.2mm graded stone	m ³	10		
5		Geotextile fabric U14 or similar approved	m ²	50		
		Concrete pipe encasement as per Detail No. 6:				
6	a)	Selected granular material	m ³	54		
7	b)	15MPa mass concrete	m ³	35		
8	c)	20MPa concrete floor slab	m ³	25		
9	d)	20MPa concrete cover slab	m ³	21		
10	e)	110mm brickwork	m ²	440		
11	f)	110mm wide DCP layer	m	880		
12	g)	Mesh ref 245	m ²	210		

TOTAL CARRIED TO SUMMARY

SABS 1200LD: SEWERS

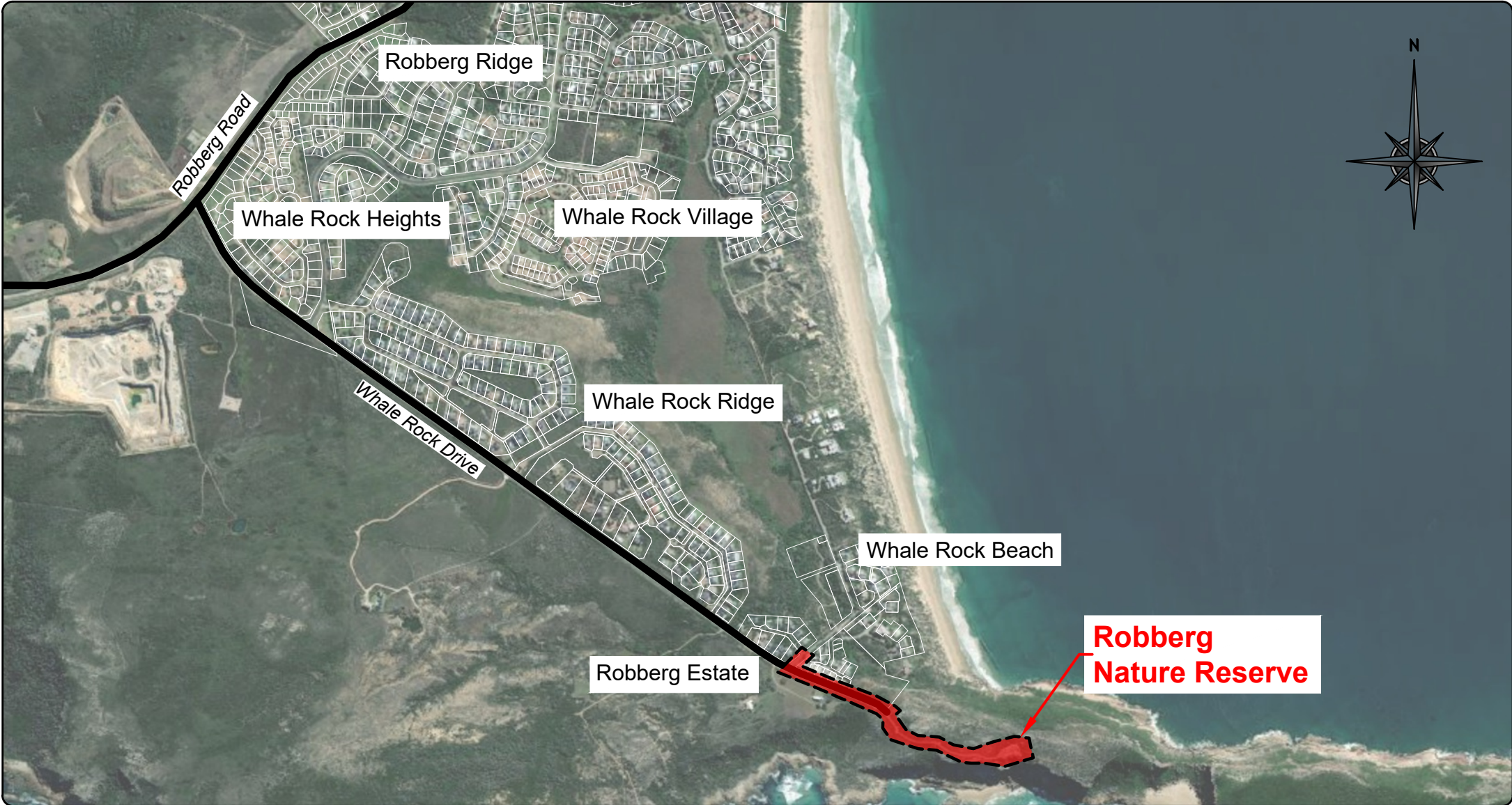
Item No.	Clause No.	Item Description	Unit	Tender Quantity	Rate	Tender Amount
	8.2.1	Supply lay, joint, bed on Class B bedding, or as per Detail No. 6 (supply and lay) and test the following pipes (incl couplings)				
1		110mm diam. Heavy duty Class 34 uPVC SABS 791	m	40		
2		160mm diam. Heavy duty Class 34 uPVC SABS 791	m	815		
	8.2.2	Extra-Over Item 8.2.1 for Specials				
		Rodding Eyes:				
3		Rodding eye to surface complete with 160x110mm diameter uPVC pipe junction, 110mm uPVC pipe, 45deg bend, end cap and concrete encasement as per Detail No 4	No.	3		
		End Caps:				
4		160mm	No.	2		
5		160mm	No.	2		
		Bends				
6		110mm dia 90deg bend	No.	2		
7		110mm dia 45deg bend	No.	2		
		Junctions				
8		160mm x 110mm diameter uPVC pipe junction	No.	2		
	8.2.3	Manholes				
		Outside Reserve: Construct manholes to Detail No. 3 complete, including heavy duty cover and frames with galvanized steel channel to prevent concrete from splitting for depths:				
		Over and up to				
9		0.0m and 1.5m	No.	1		
10		1.5m and 2.0m	No.	3		
11		2.0m and 2.5m	No.	1		
12		2.5m and 3.0m	No.			Rate only
13		3.0m and 3.5m	No.			Rate only
14		3.5m and 4.0m	No.			Rate only
15		4.0m and 4.5m	No.	2		
16	8.2.4	Extra-Over Item 8.2.3 for Ramp (600mm to 1050mm) to manhole (Provisional)	No.			Rate only
	8.2.4	Extra-Over Item 8.2.3 for Backdrop to manhole for depths (Provisional)				
17		1.0m to 1.5m	No.			Rate only
	8.2.13	Extra over items 9 to 15 for the construction of additional channeling and the building in of short pipe specials at branch manholes and manholes at bends.				
		(a) For FC branched channels:				
18		(i) 160mm dia	No.	1		
	8.2.3	Manholes				
		Inside Reserve: Construct manholes to Detail No. 7 complete, including heavy duty cover and frames with galvanized steel channel to prevent concrete from splitting for depths:				
		Over and up to				
19		0.0m and 1.5m	No.	8		
20		1.5m and 2.0m	No.	1		
21						
22	8.2.4	Extra-Over Item 8.2.3 for Ramp (600mm to 1050mm) to manhole (Provisional)	No.	2		
	8.2.4	Extra-Over Item 8.2.3 for Backdrop to manhole for depths (Provisional)				
23		1.0m to 1.5m	No.			Rate only
	8.2.13	Extra over items 19 to 21 for the construction of additional channeling and the building in of short pipe specials at branch manholes and manholes at bends.				
		(a) For FC branched channels:				
24		(i) 160mm dia	No.	1		
	8.2.11	Connection to Existing Sewer manholes complete, including all excavations fittings, breaking, repair, liaison with municipality and backfilling				
25		Connect to existing sewer	Sum	1		

TOTAL CARRIED TO SUMMARY	
--------------------------	--

SABS 1200LG: PIPE JACKING

Item No.	Clause No.	Item Description	Unit	Tender Quantity	Rate	Tender Amount
	8.2.1	Jacking Establishment (For 2No Road Crossings as per drawing 8528AG-21)				
1	8.2.1 (a)	Fixed Charges	Sum	1		
2	8.2.1(b)	Time-related charges (period to be stated by contractor)	Sum	1		
	8.2.2	Supply of Pipes to be jacked				
3		160mm diam. HDPE PE100 PN16	m	35		
	8.2.3	Jacking of pipes				
4		160mm diam. HDPE PE100 PN16	m	35		
5	8.2.4	Excavation of Jacking (In soft and Intermediate material)	m ³	2		
6	8.2.5	Extra-over 8.2.1 and 8.2.4 for unforeseen Rock or Boulders (Provisional)	Sum	1		
	8.2.9	Stablization of Unstable Areas or Grouting of voids where ordered				
7		a) Provision and establishment of equipment on Site, and removal on completion of operation (provisional)	Sum	1		
8		b) Operation of equipment (provisional)	Day	2		
9		c) Materials used (provisional)	kg	100		
10	8.2.10	Standing Time for pipe Jacking gang and the Jacking Equipment covered by 8.2.1	Hour	10		
TOTAL CARRIED TO SUMMARY						

DETAIL OF LOCALITY MAP



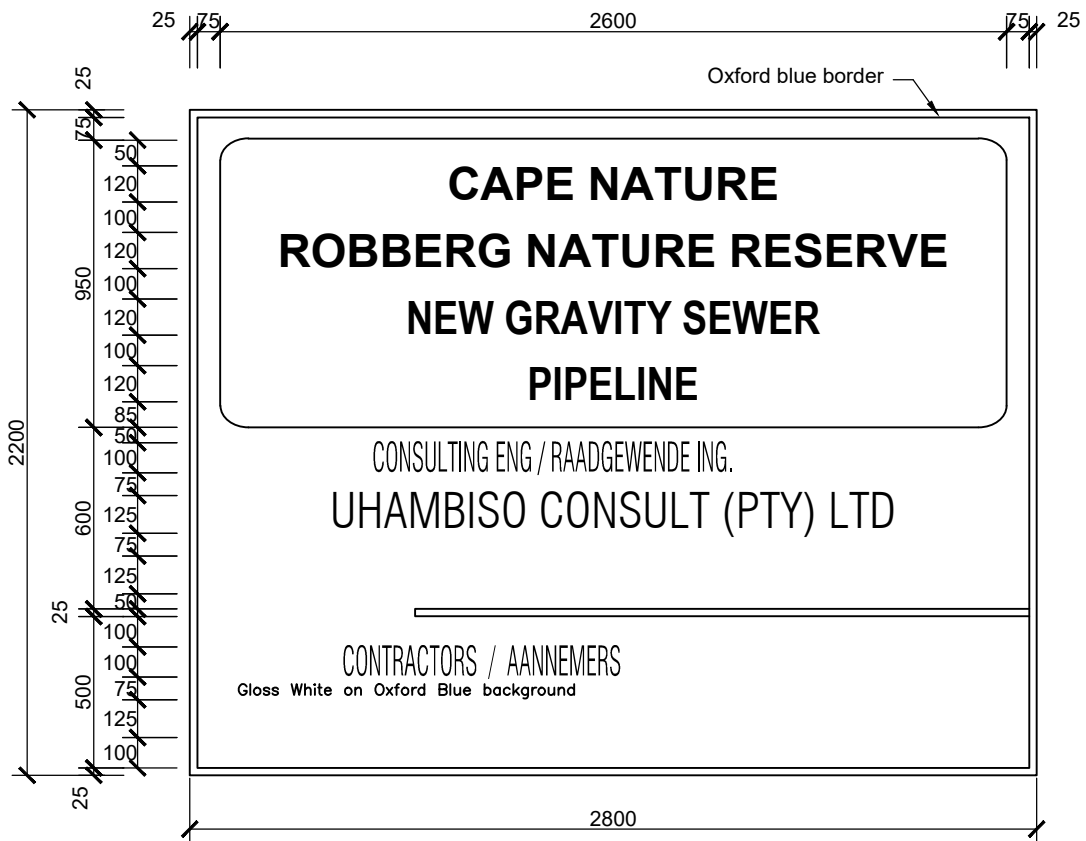
Project Title **PLETTENBERG BAY:
ROBBERG NATURE RESERVE**

Drawing Number **8528AG-01**

Drawn	BVDW
Approved	CS
Date	2024/09/27
Scale	1:15 000

Detail No. **1**

DETAIL OF NAME BOARD



Project Title

**PLETTENBERG BAY:
ROBERG NATURE RESERVE**

Scale	1:25
Drawn	BVDW
Approved	CS
Date	2024/09/27

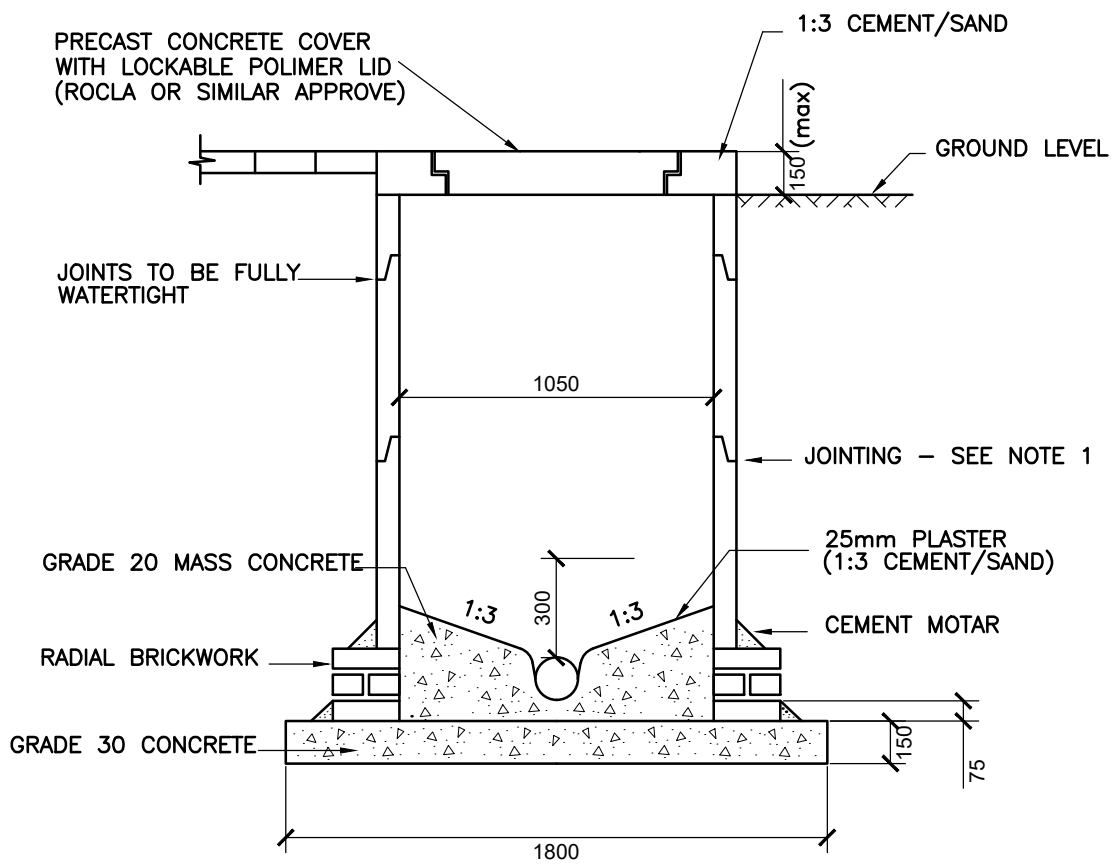
Drawing Number

8528AG-02

Detail No.

2

DETAIL OF PRECAST SEWER MANHOLE



NOTE:

1. ALL JOINTS GREATER THAN 1.5m BELOW COVER LEVEL ARE TO BE SEALED WITH AN APPROVED BITUMINOUS PUTTY SUCH AS "BITUJOINT" OR WITH AN APPROVED HEAVY DUTY PVC BASED SEALING TAPE 100mm WIDE APPLIED UNDER TENSION ONTO A PRIMED SURFACE, ALL IN ACCORDANCE WITH MANUFACTURES SPECIFICATIONS.

Project Title

**PLETTENBERG BAY:
ROBERG NATURE RESERVE**

Scale 1:25

Drawn BVDW

Approved CS

Date 2024/09/27

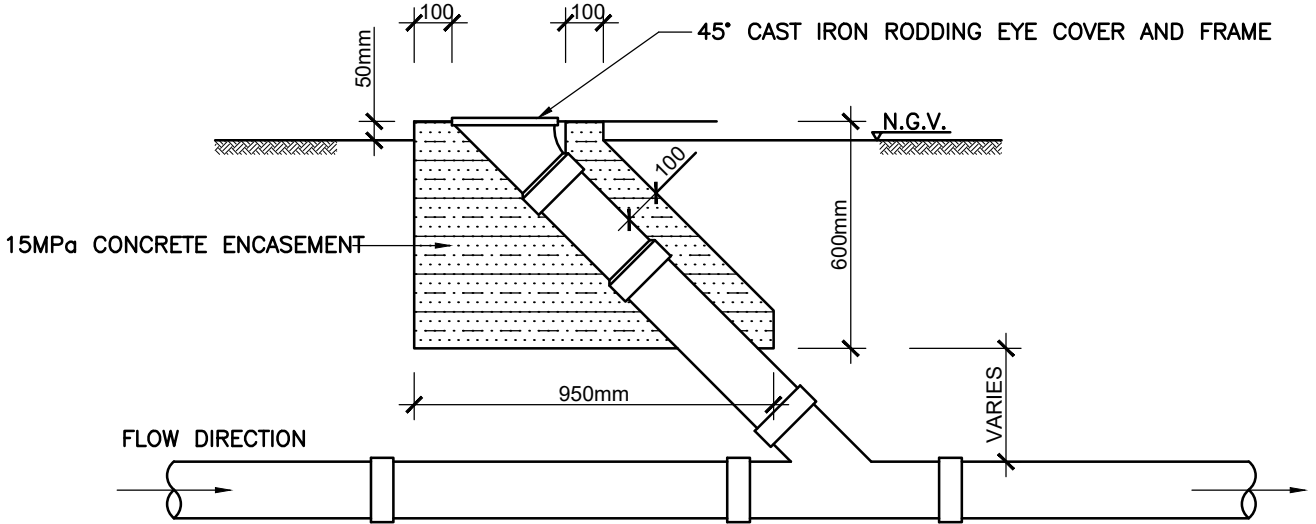
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8528AG-03

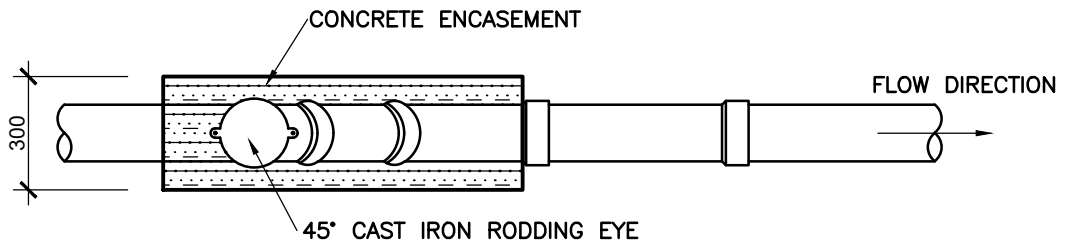
Detail No.

3

DETAIL OF RODDING EYE



SECTION



PLAN

Project Title

**PLETTENBERG BAY:
ROBERG NATURE RESERVE**

Scale 1:20

Drawn BVDW

Approved CS

Date 2024/09/27

Drawing Number

8528AG-04

Detail No.

4

DETAIL OF 1m x 1m SAFETY BOARD

CONSTRUCTION SITE

PROJECT NAME

PROJECT NUMBER

ROBBERG NATURE RESERVE

WAYLEAVE NUMBER

1. REPORT TO SITE
2. ADHERE TO ALL INSTRUCTIONS ISSUED
3. ALL VISITORS MUST SIGN THE REGISTER
4. CONTACT SITE FOREMAN IN CASE OF EMERGENCY
5. DIRECT ALL COMPLAINTS TO SITE SUPERVISOR
6. NO ENTRY TO UNAUTHORISED PERSONNEL

PROJECT SUPERVISOR

SITE SUPERVISOR

FIRST AIDER

SHE REPRESENTATIVE

COMMUNITY LIAISON OFFICER

SITE CONTRACTOR



No unauthorised persons beyond this point



1000mm x 1000mm

Project Title

**PLETTENBERG BAY:
ROBBERG NATURE RESERVE**

Scale N.T.S

Drawn BVDW

Approved CS

Date 2024/09/27

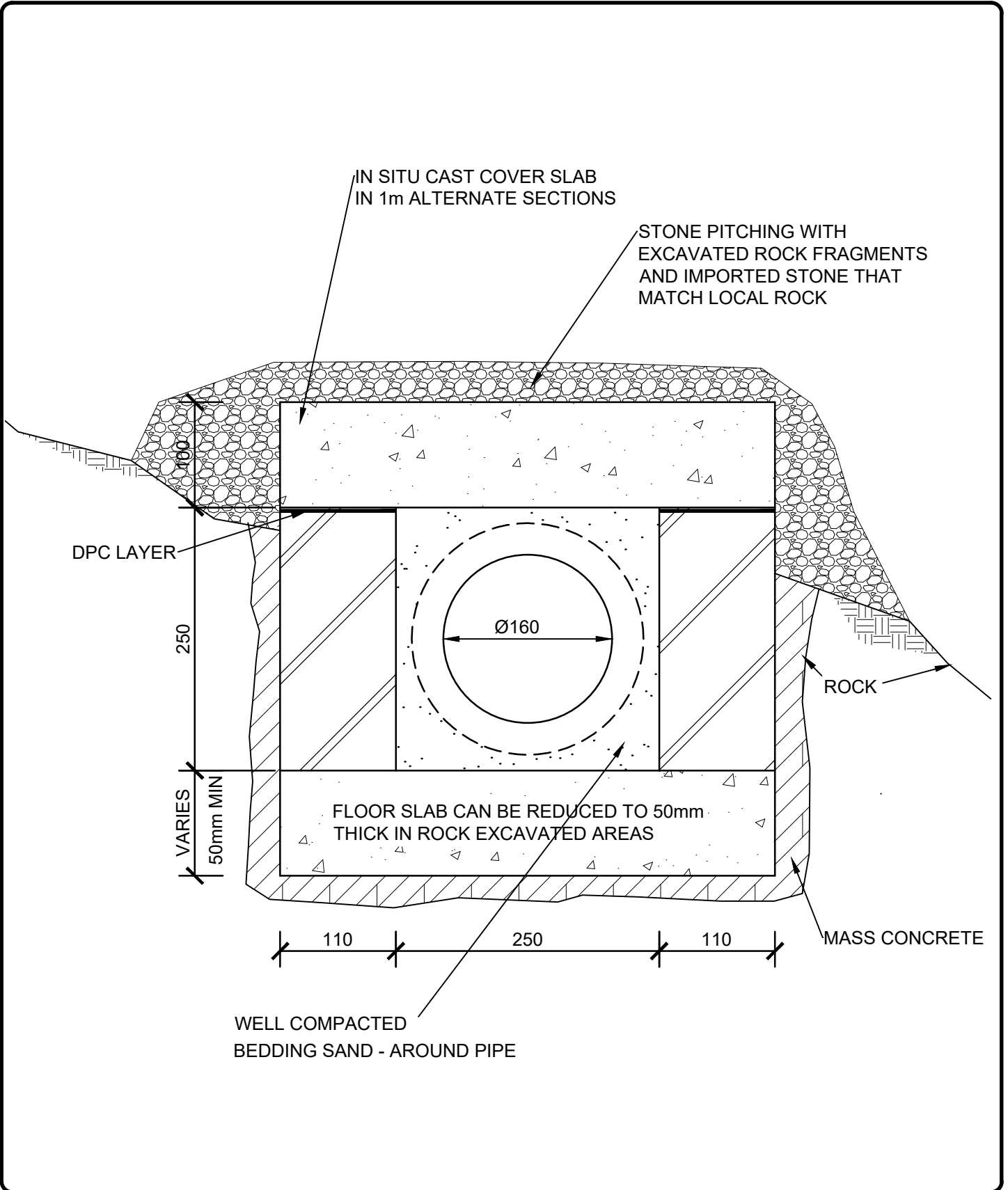
Drawing Number

8528AG-05

Detail No.

5

DETAIL OF TYPICAL PIPE ENCASEMENT FOR SHALLOW LINES IN ROCKY AREAS



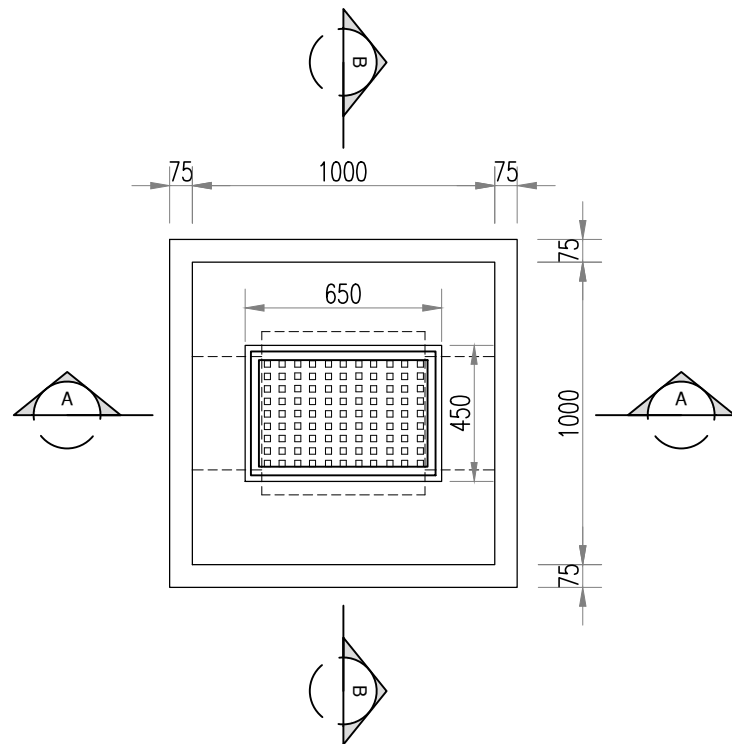
Project Title	PLETTENBERG BAY: ROBERG NATURE RESERVE
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Scale	1:5
Drawn	BVDW
Approved	CS
Date	2024/09/27

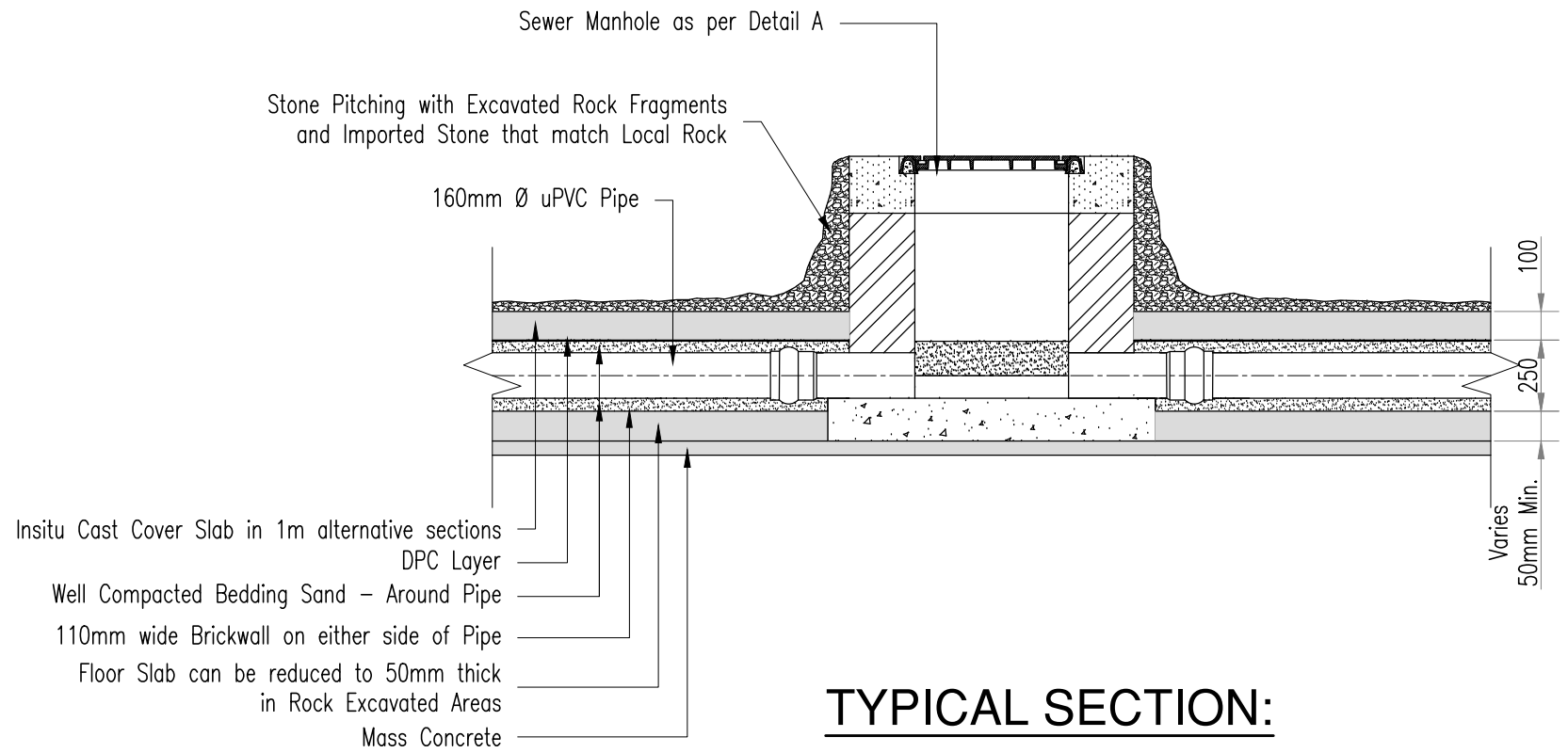
Drawing Number	8528AG-06
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Detail No.	6
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DETAIL OF BRICK SEWER MANHOLE

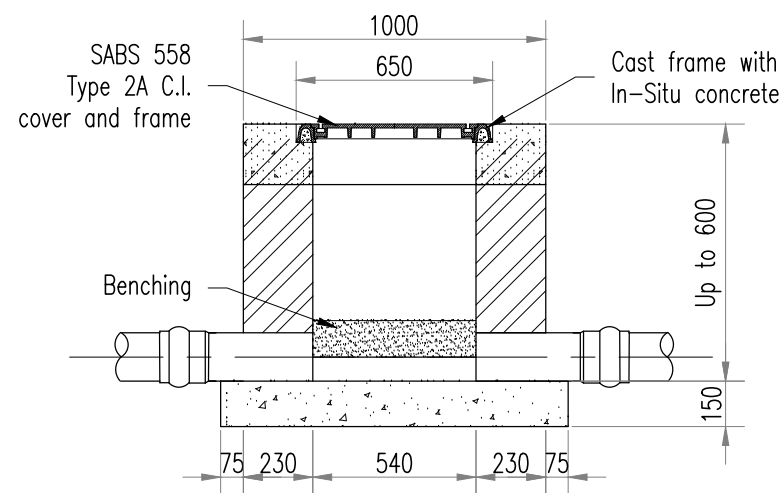


PLAN VIEW

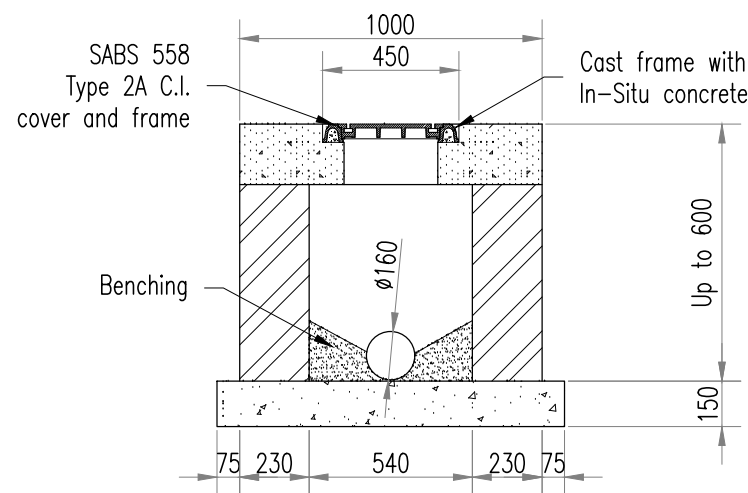


**TYPICAL SECTION:
ENCASEMENT TIE INTO MANHOLE**

SCALE: 1:25



SECTION A-A



SECTION B-B

DETAIL A: SEWER MANHOLE

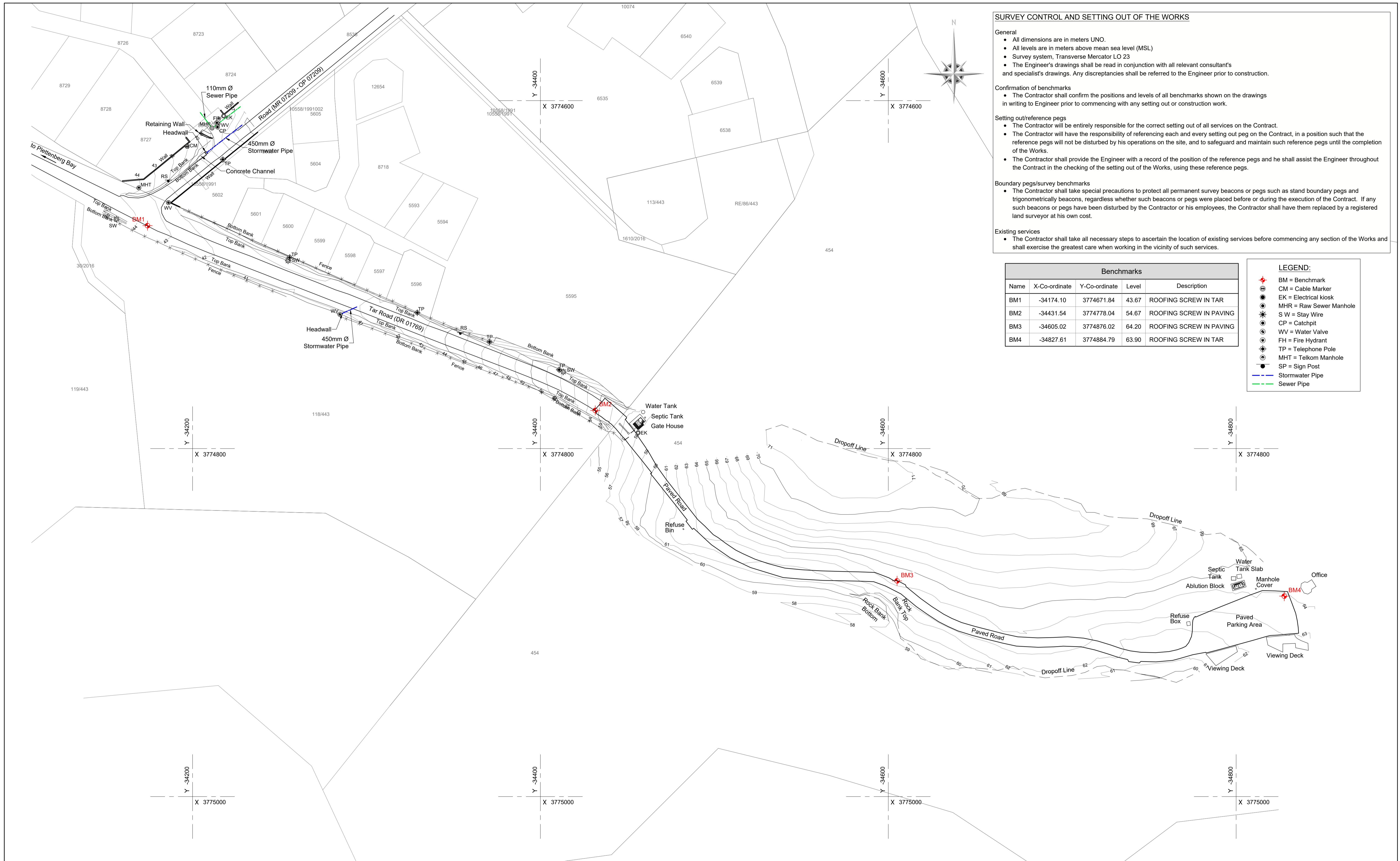
SCALE: 1:25

Project Title
**PLETTENBERG BAY:
ROBERG NATURE RESERVE**

Drawing Number
8528AG-07

Drawn	BVDW
Approved	CS
Date	2024/09/27
Scale	1:25

Detail No. **7**



SURVEY CONTROL AND SETTING OUT OF THE WORKS

General

- All dimensions are in meters UNO.
- All levels are in meters above mean sea level (MSL)
- Survey system, Transverse Mercator LO 23
- The Engineer's drawings shall be read in conjunction with all relevant consultant's and specialist's drawings. Any discrepancies shall be referred to the Engineer prior to construction.

Confirmation of benchmarks

- The Contractor shall confirm the positions and levels of all benchmarks shown on the drawings in writing to Engineer prior to commencing work with any setting out or construction work.

Setting out/reference pegs

- The Contractor will be entirely responsible for the correct setting out of all services on the Contract.
- The Contractor will have the responsibility of referencing each and every setting out peg on the Contract, in a position such that the reference pegs will not be disturbed by his operations on the site, and to safeguard and maintain such reference pegs until the completion of the Works.
- The Contractor shall provide the Engineer with a record of the position of the reference pegs and he shall assist the Engineer throughout the Contract in the checking of the setting out of the Works, using these reference pegs.

Boundary pegs/survey benchmarks

- The Contractor shall take special precautions to protect all permanent survey beacons or pegs such as stand boundary pegs and trigonometrically beacons, regardless whether such beacons or pegs were placed before or during the execution of the Contract. If any such beacons or pegs have been disturbed by the Contractor or his employees, the Contractor shall have them replaced by a registered land surveyor at his own cost.

Existing services

- The Contractor shall take all necessary steps to ascertain the location of existing services before commencing any section of the Works and shall exercise the greatest care when working in the vicinity of such services.

Benchmarks				
Name	X-Co-ordinate	Y-Co-ordinate	Level	Description
BM1	-34174.10	3774671.84	43.67	ROOFING SCREW IN TAR
BM2	-34431.54	3774778.04	54.67	ROOFING SCREW IN PAVING
BM3	-34605.02	3774876.02	64.20	ROOFING SCREW IN PAVING
BM4	-34827.61	3774884.79	63.90	ROOFING SCREW IN TAR

LEGEND:

- ⊕ BM = Benchmark
- ⊖ CM = Cable Marker
- ⊙ EK = Electrical Kiosk
- ⊙ MHR = Raw Sewer Manhole
- ⊙ S W = Stay Wire
- ⊙ CP = Catchpit
- ⊙ WV = Water Valve
- ⊙ FH = Fire Hydrant
- ⊙ TP = Telephone Pole
- ⊙ MHT = Telkom Manhole
- ⊙ SP = Sign Post
- Stormwater Pipe
- Sewer Pipe

DRAWN BVDW	DATE DRAWN 2024/07/16	SHEET SIZE A1 Landscape
DESIGN ENGINEER CS	PROJECT LEADER JG	PROFESSIONAL ENGINEER CS
APPROVED BY	DATE APPROVED	

REV#	DATE	REVISION DESCRIPTION
T01	BVDW 2024/07/24	ISSUED FOR TENDER

CLIENT

Uhambiso Consult (Pty) Ltd
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 website: www.uc.consulting

PROJECT TITLE
**PLETTENBERG BAY:
 ROBERG NATURE RESERVE**

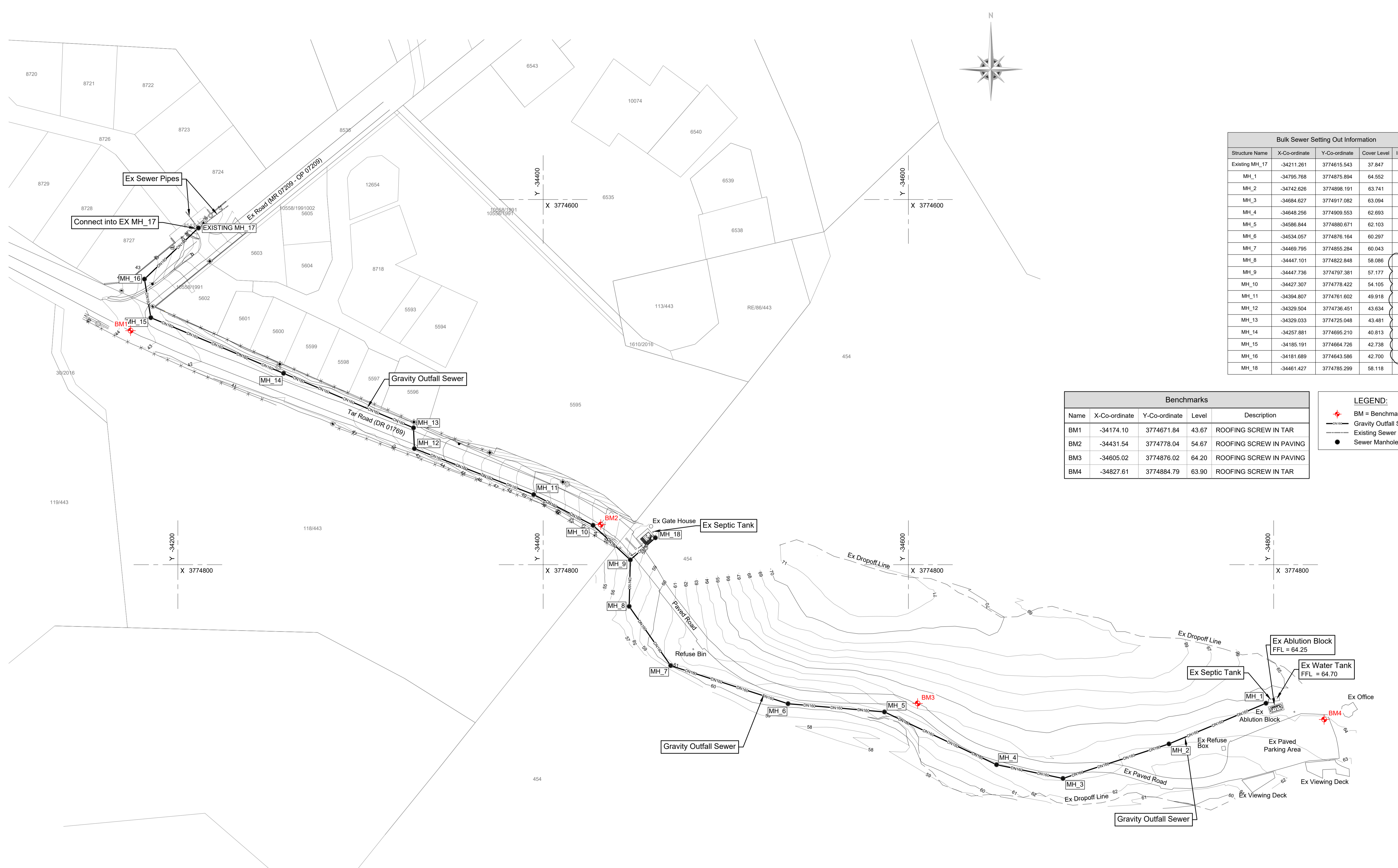
DRAWING TITLE
SURVEY LAYOUT PLAN

SCALE
1:1000

DRAWING No.
8528AG/20

REVISION
T01

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Bulk Sewer Setting Out Information				
Structure Name	X-Co-ordinate	Y-Co-ordinate	Cover Level	Invert level
Existing MH_17	-34211.261	3774615.543	37.847	36.710
MH_1	-34795.768	3774875.894	64.552	63.950
MH_2	-34742.626	3774898.191	63.741	63.378
MH_3	-34684.627	3774917.082	63.094	62.778
MH_4	-34648.256	3774909.553	62.693	62.398
MH_5	-34586.844	3774880.671	62.103	61.501
MH_6	-34534.057	3774876.164	60.297	60.033
MH_7	-34469.795	3774855.284	60.043	59.327
MH_8	-34447.101	3774822.848	58.086	57.189
MH_9	-34447.736	3774797.381	57.177	54.943
MH_10	-34427.307	3774778.422	54.105	52.342
MH_11	-34394.807	3774761.602	49.918	48.225
MH_12	-34329.504	3774736.451	43.634	42.113
MH_13	-34329.033	3774725.048	43.481	41.271
MH_14	-34257.881	3774695.210	40.813	39.560
MH_15	-34185.191	3774664.726	42.738	38.772
MH_16	-34181.689	3774643.586	42.700	38.558
MH_18	-34461.427	3774785.299	58.118	56.436

Benchmarks				
Name	X-Co-ordinate	Y-Co-ordinate	Level	Description
BM1	-34174.10	3774671.84	43.67	ROOFING SCREW IN TAR
BM2	-34431.54	3774778.04	54.67	ROOFING SCREW IN PAVING
BM3	-34605.02	3774876.02	64.20	ROOFING SCREW IN PAVING
BM4	-34827.61	3774884.79	63.90	ROOFING SCREW IN TAR

LEGEND:

- BM = Benchmark
- Gravity Outfall Sewer
- Existing Sewer
- Sewer Manhole

DRAWN BVDW	DATE DRAWN 2024/07/16	SHEET SIZE A1 Landscape
DESIGN ENGINEER CS	PROJECT LEADER JG	PROFESSIONAL ENGINEER CS
APPROVED BY	DATE APPROVED	

REV	BY	DATE	REVISION DESCRIPTION
T02	BVDW	2024/06/13	SEWER INVERT LEVELS AMENDED
T01	BVDW	2024/07/24	ISSUED FOR TENDER

CLIENT

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PROJECT TITLE

**PLETTENBERG BAY:
ROBERG NATURE RESERVE**

DRAWING TITLE

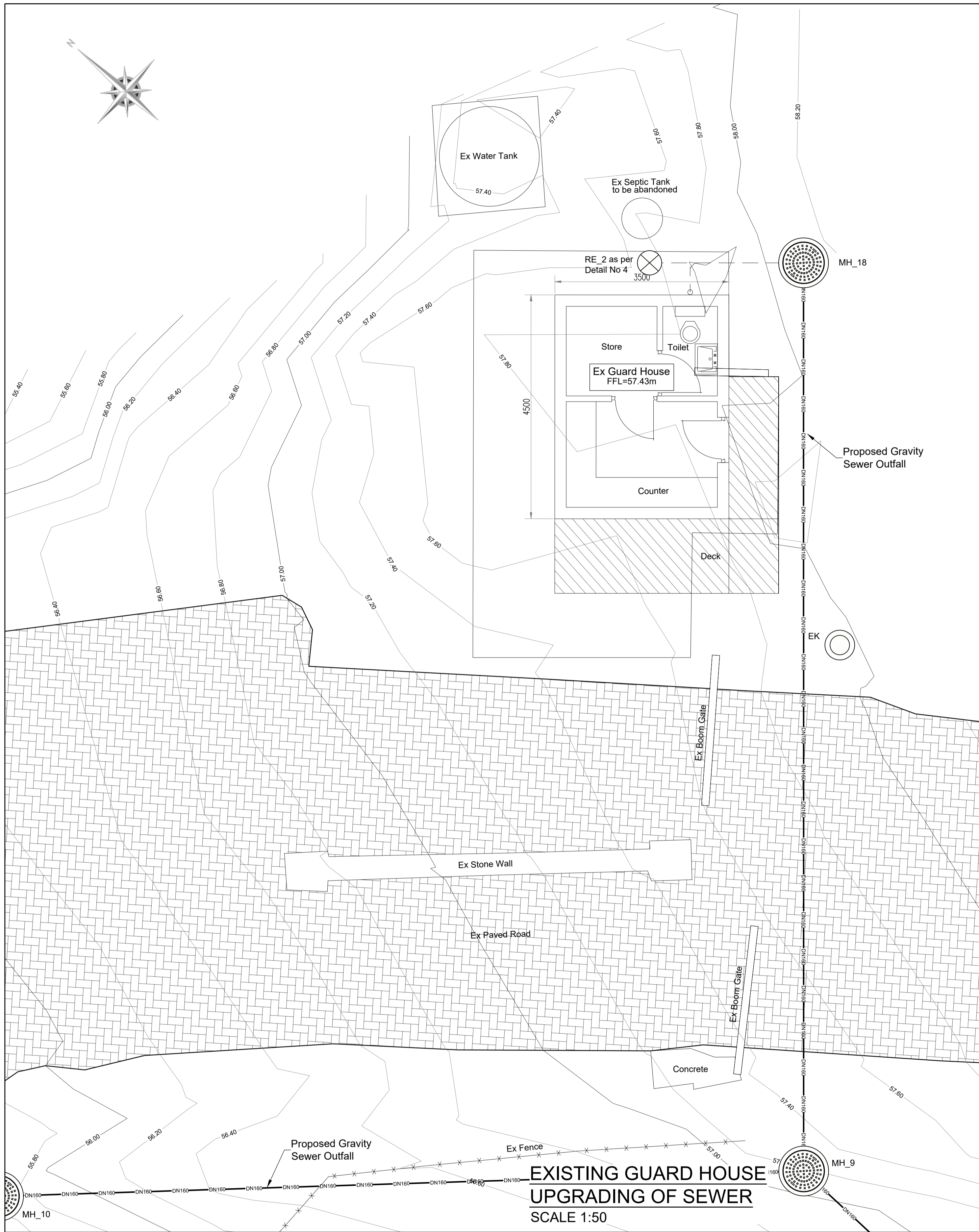
**SEWER GRAVITY OUTFALL
LAYOUT PLAN**

SCALE: 1:1000

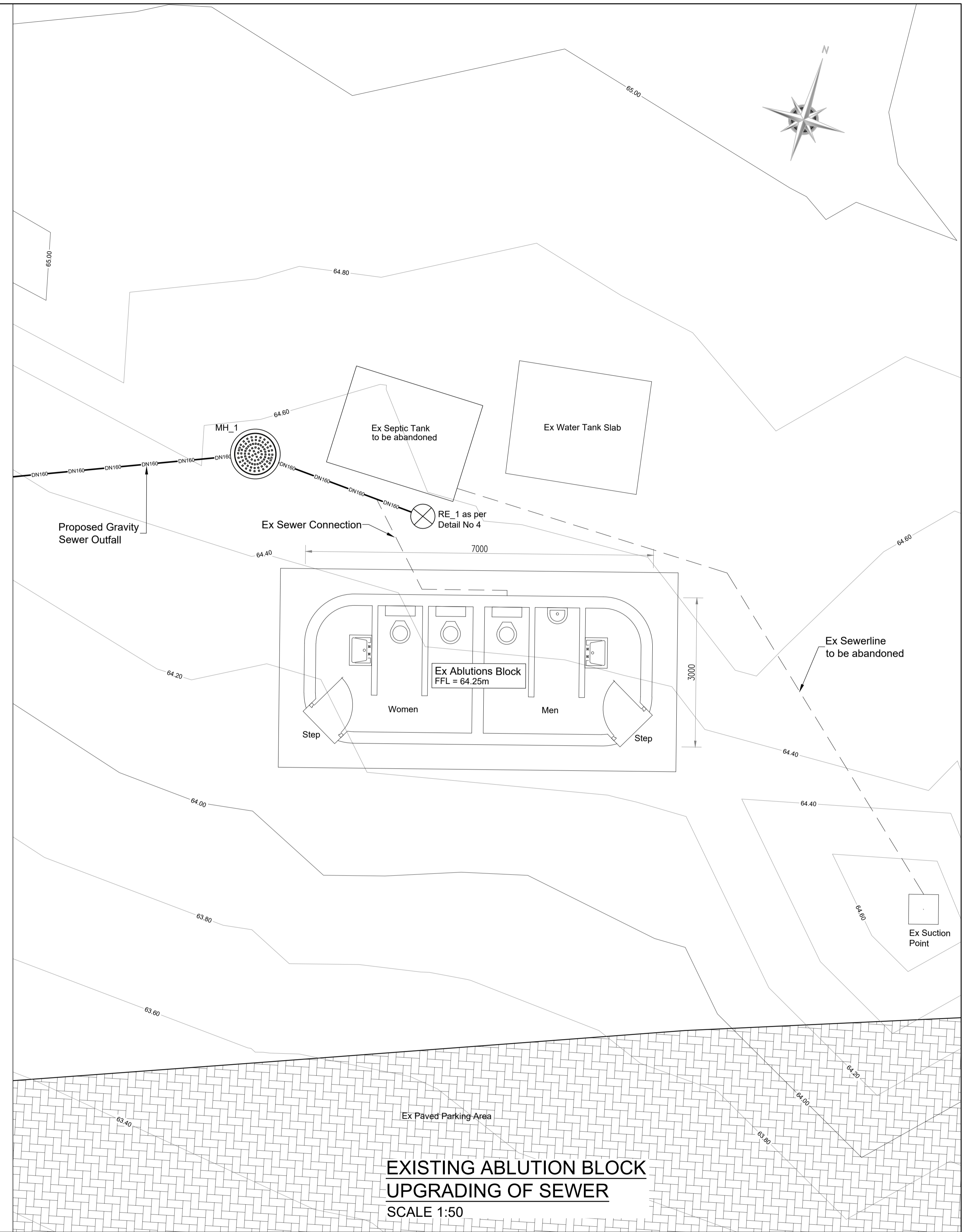
DRAWING No. 8528AG/21

REVISION T02

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**EXISTING GUARD HOUSE
UPGRADING OF SEWER**
SCALE 1:50



**EXISTING ABLUTION BLOCK
UPGRADING OF SEWER**
SCALE 1:50

DRAWN BVDW	DATE DRAWN 2024/07/18	SHEET SIZE A1 Landscape
DESIGN ENGINEER CS	PROJECT LEADER JG	PROFESSIONAL ENGINEER CS
APPROVED BY	DATE APPROVED	

REV	DATE	REVISION DESCRIPTION	AMENDMENTS
T01	2024/07/24	ISSUED FOR TENDER	

CLIENT



Uhambiso Consult (Pty) Ltd
CONSULTING ENGINEERS AND PROJECT MANAGERS
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website: www.uc.consulting

PROJECT TITLE

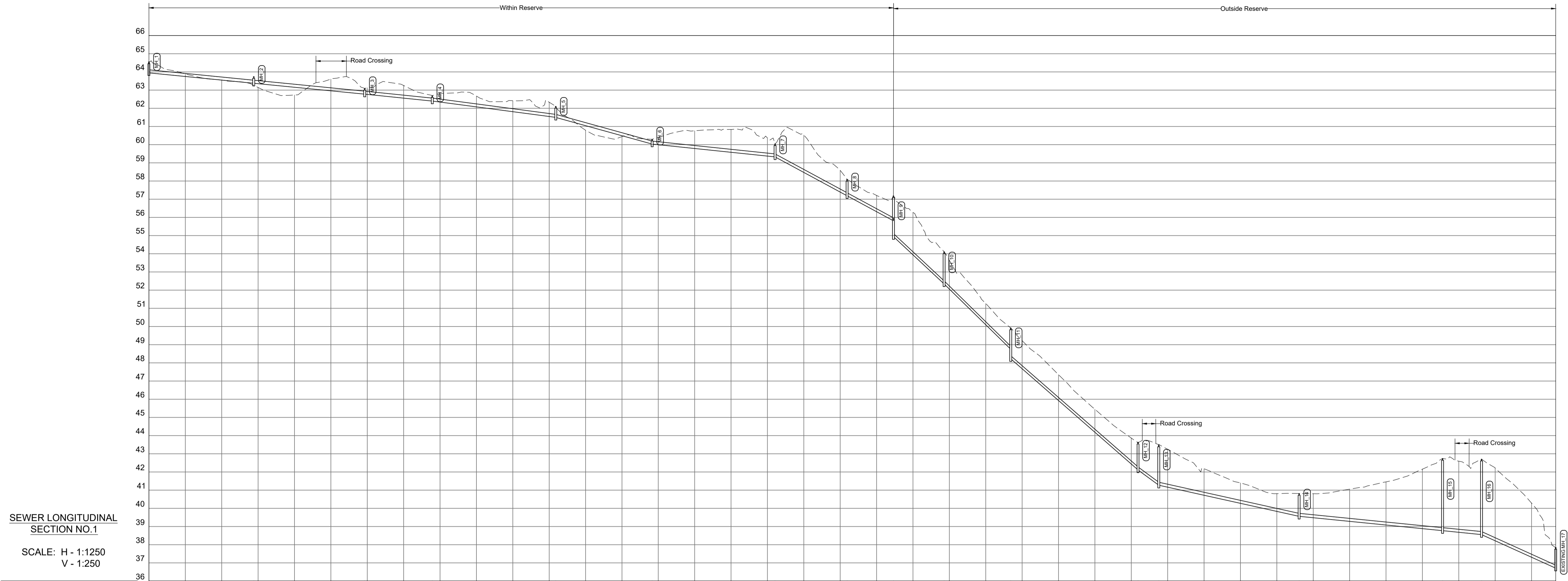
**PLETTENBERG BAY:
ROBBERG NATURE RESERVE**

DRAWING TITLE

**ABLUTION BLOCK AND
GUARD HOUSE :
UPGRADING OF SEWERS: PLAN**

SCALE 1:50 DRAWING No. 8528AG/22 REVISION T01

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SEWER LONGITUDINAL SECTION NO.1
SCALE: H - 1:1250
V - 1:250

STRUCTURE NAME	MH_1	MH_2	MH_3	MH_4	MH_5	MH_6	MH_7	MH_8	MH_9	MH_10	MH_11	MH_12	MH_13	MH_14	MH_15	MH_16	Existing MH_17
CHAINAGE (m)	0.000	57.630	118.628	155.770	225.635	276.614	344.183	383.770	409.245	437.116	473.710	549.689	555.102	632.257	711.080	732.508	773.262
GROUND LEVEL (m)	64.552	63.741	63.094	62.893	62.103	60.297	60.043	58.086	57.177	54.105	48.918	43.634	43.481	40.813	42.738	42.700	37.847
PIPE INVERT LEVEL (m)	63.350	63.378	62.778	62.336	61.901	60.033	59.327	57.189	54.843	52.242	48.225	42.113	41.271	39.550	38.772	38.558	36.710
STRUCTURE DEPTH (m)	0.602	0.383	0.316	0.236	0.602	0.264	0.716	0.897	2.233	1.763	1.693	1.521	2.210	1.253	3.967	4.143	1.137
PIPE LENGTH / SLOPE	57.6 m / 1.0%	61.0 m / 1.0%	37.1 m / 1.0%	67.9 m / 1.3%	53.0 m / 2.8%	67.6 m / 1.0%	39.6 m / 5.4%	25.5 m / 5.4%	28.0 m / 9.3%	36.8 m / 9.8%	70.2 m / 8.7%	11.4 m / 7.4%	77.2 m / 2.2%	78.8 m / 1.0%	21.4 m / 1.0%	40.8 m / 4.5%	18.3 m / 3.4%
HYDRAULIC DESIGN	DESIGN Q(l/s)	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	MAX. (0.8D) Q(l/s)	18.03	17.94	18.30	20.80	30.11	18.49	42.04	42.06	55.27	56.69	53.46	49.15	26.94	18.09	18.09	38.52
HYDRAULIC DESIGN	DESIGN V(m/s)	0.32	0.28	0.28	0.32	0.30	0.30	0.45	0.44	0.57	0.54	0.51	0.39	0.28	0.29	0.41	0.41
	MAX. (0.8D) V(m/s)	0.94	0.94	0.94	1.08	1.55	0.94	2.23	2.23	2.85	2.99	2.85	2.53	1.41	0.94	0.94	2.01
PIPE SIZE	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty	1600 uPVC Class 34 Heavy Duty

SEWER LONGITUDINAL SECTION NO.2
SCALE: H - 1:1250
V - 1:250

STRUCTURE NAME	MH_18	MH_19
CHAINAGE (m)	0.000	18.260
GROUND LEVEL (m)	58.118	57.177
PIPE INVERT LEVEL (m)	56.436	54.643
STRUCTURE DEPTH (m)	1.682	2.233
PIPE LENGTH / SLOPE	18.3 m / 3.4%	
HYDRAULIC DESIGN	DESIGN Q(l/s)	0.10
HYDRAULIC DESIGN	MAX. (0.8D) Q(l/s)	18.3
HYDRAULIC DESIGN	DESIGN V(m/s)	0.41
HYDRAULIC DESIGN	MAX. (0.8D) V(m/s)	2.01
PIPE SIZE	1600 uPVC Class 34 Heavy Duty	

DRAWN BVDW	DATE DRAWN 2023/07/18	SHEET SIZE A1 Landscape
DESIGN ENGINEER CS	PROJECT LEADER JG	PROFESSIONAL ENGINEER CS
APPROVED BY	DATE APPROVED	

REV	BY	DATE	REVISION DESCRIPTION
T02	BVDW	2024/06/13	LONG SECTIONS AMENDED
T01	BVDW	2024/07/24	ISSUED FOR TENDER



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PROJECT TITLE
**PLETTENBERG BAY:
ROBERG NATURE RESERVE**

DRAWING TITLE
SEWER LONG SECTIONS

SCALE: 1:1250
DRAWING No. 8528AG/23
REVISION T02
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Version 1.0

ENVIRONMENTAL MANAGEMENT PROGRAMME

in terms of

Regulation 22 (b) of Government Notice No. R385 in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act 107 of 1998), July 2006 as amended 2008 and the Environmental Impact Assessment Regulations 2014 (as amended)

For the proposed

Construction of a new Gravity Outfall Sewer on Farm 454; Robberg Nature Reserve, Plettenberg Bay.



Compiled by	Hiland Environmental
Date	31 March 2021
Hiland reference	PLE21/1058/05
DEFF reference no.	2021-06-0028
DEFF case officer	Mathodi Mogorosi

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Construction of a new Gravity Outfall Sewer on Farm 454; Robberg Nature Reserve, Plettenberg Bay.

Submitted for:

Public review and comment

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Annexure B	Environmental Induction Information and Register
Annexure C	Method statement form
Annexure D	Register of rescued plants
Annexure E	Protected tree and plant species adopted from the relevant acts (Schedules 3 and 4 respectively, in terms of the Western Cape Nature Conservation Laws Amendment Act, 2000 (Act No. 3 of 2000) and National Forest Act, 1998, as amended)
Annexure F	CV of EAPs
Annexure G	CapeNature Robberg Nature Reserve Complex Management Plan

National Environmental Management Act

An EMPr must comply with Section 24N of NEMA and the Environmental Impact Assessment Regulations 2014 (GN 982 Appendix 4) which requires that it must include the following:

REQUIREMENTS	REPORT SECTION
(a) details of- (i) the EAP who prepared the EMPr; and (ii) the expertise of that EAP to prepare an EMPr, including a curriculum vitae;	Annexure F & Page 6
(b) a detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;	Section 2
(c) a map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers;	Annexure A
(d) a description of the impact management [objectives] outcomes, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including- (i) planning and design; (ii) pre-construction activities; (iii) construction activities; (iv) rehabilitation of the environment after construction and where applicable post closure; and (v) where relevant, operation activities;	Section 2.2
(e) a description and identification of impact management outcomes required for the aspects contemplated in paragraph (d);	Throughout the EMPr
(f) a description of proposed impact management actions, identifying the manner in which the impact management [objectives and] outcomes contemplated in paragraph (d) [and (e)] will be achieved, and must, where applicable, include actions to – (i) avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; (ii) comply with any prescribed environmental management standards or practices; (iii) comply with any applicable provisions of the Act regarding closure, where applicable; and (iv) comply with any provisions of the Act regarding financial provision for rehabilitation, where applicable;	Section 5
(g) the method of monitoring the implementation of the impact management actions contemplated in paragraph (f);	Throughout the EMPr
(h) the frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f)	
(i) an indication of the persons who will be responsible for the implementation of the impact management actions;	
(j) the time periods within which the impact management actions contemplated in paragraph (f) must be implemented;	
(k) the mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f);	Throughout the EMPr

(l) a program for reporting on compliance, taking into account the requirements as prescribed by the Regulations;	
(m) an environmental awareness plan describing the manner in which- (i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and (ii) risks must be dealt with in order to avoid pollution or the degradation of the environment; and	Annexure B & Section 5.1.1
(n) any specific information that may be required by the competent authority.	N/A
1. Where a government notice gazetted by the Minister provides for a generic EMPr, such generic EMPr as indicated in such notice will apply.	N/A

Authors of the report

The EMPr has been drafted by various authors from HillLand Environmental. **Cathy Avierinos** (HillLand Environmental) BSc (Hons) degree in Botany, Environmental Management and has been practising in the EIA field for the past 29 years – undertaking in excess of 1000 projects in the EIA field including EIA, Public participation, Environmental Management, Environmental Control, Environmental Rehabilitation and Specialist reporting.

Stefan Delpoort (HillLand Environmental) graduated from Stellenbosch University with a BSc (Hons) in Conservation Ecology and Entomology. He has three years' experience in environmental management and reporting and is working under the direct supervision of Cathy Avierinos.

Inge Delpoort (HillLand Environmental) graduated from Stellenbosch University with a BSc (Hons) in Biodiversity Ecology and Entomology. He has two years' experience in environmental management and reporting and is working under the direct supervision of Cathy Avierinos.

Dr David Hoare (David Hoare Consulting (Pty) Ltd) – Vegetation Assessment Report and input relating to the vegetation impacts.

Dr Peter Nilssen (Archaeologists) - Statement to Accompany Notice of Intent to Develop (NID) (HWC Case No.: 20071308) Environmental Application for the Proposed Gravity Outfall Sewer Line, Robberg Nature Reserve, Erf 454, Plettenberg Bay, Eden District Municipality, Western Cape Province.

1 ABOUT THIS EMPr

This Environmental Management Programme (EMPr) (as amended to include the conditions of the Environmental Authorisation (EA), when issued) is **binding to the applicant and ALL successors** in part of the proposed construction of the new Gravity Outfall Sewer on Farm 454; Robberg Nature Reserve, Plettenberg Bay. This EMPr must be read and implemented in conjunction with the already approved Management Plan for Robberg Nature Reserve Complex which is attached to this EMPr as Annexure G.

This EMPr is submitted as per the requirements of a Basic Assessment in terms of NEMA.

The monitoring of compliance of this EMPr is mandatory in terms of the construction phase and a compliance reporting is required at the **end** of the construction phases of the gravity outfall sewer. It is anticipated that the EA will require a completion audit at the end of the construction phase.

This EMPr must be included in the tender documents of **all** prospective contractors and must be included in the final contract awarded. **The EMPr must be regarded as binding on the applicant and all contractors, sub-contractors, agents, consultants, and construction staff of the project.** Certain fundamental aspects are therefore of importance:

-) The EMPr and these requirements are binding on all contractors and their sub-contractors.
-) It is the responsibility of the applicant/ holder to ensure that his/her main contractor and any sub-contractors are made aware of the environmental requirements for working on the property.
-) The contractor(s) will be required to make good any damage caused through their actions or the actions of their sub-contractors (in addition to any penalties for non-compliance issued).

Please note that this EMPr is a dynamic document, which will grow and be changed with new developments in the field as the need arises.

2 INTRODUCTION & DESCRIPTION OF ACTIVITY

HillLand Environmental, independent Environmental Assessment Practitioners (EAPs), have been appointed by the applicant, **Department of Transport and Public Works for CapeNature**, represented by **Uhambiso Consult (Pty)Ltd**, to ensure compliance with the National Environmental Management Act of 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment (EIA, 2014) Regulations, as amended, for the proposed development of a New Gravity Outfall Sewer on Farm 454, Robberg Nature Reserve, Plettenberg Bay. Farm 454, hereafter referred to as 'the property', is approximately 196.46 ha in extent and is located South of Plettenberg Bay.

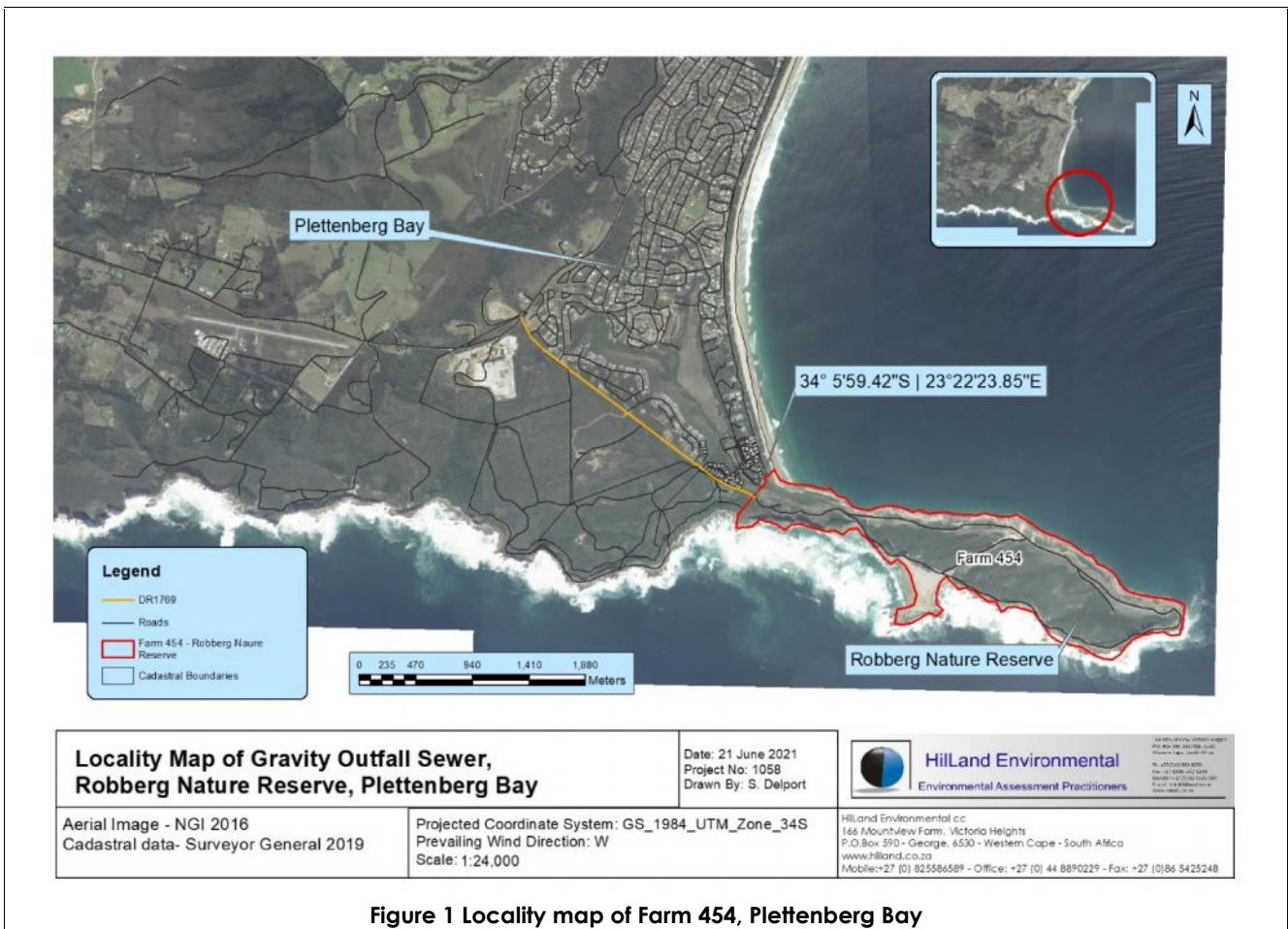


Figure 1 Locality map of Farm 454, Plettenberg Bay

The project entails a new sewer line and repairs to the existing sewer system. The project will occur partly in the Robberg Nature Reserve (Farm 454), where it will flow from the existing abluion facility towards the gate of the Robberg Nature Reserve. From the gate it will run along the road reserve (DR1769) outside the Nature Reserve, to the Robberg Estate entrance, which is where the closest Bitou Municipality sewer network manhole is located.



Figure 2: Proposed Site Development Plan for the Development of the New Gravity Outfall Sewer on Farm 454, Plettenberg Bay (please also refer to Annexure A)

The existing ablution facilities (2x female toilets, 1x male toilet and 1x male urinal) at Robberg Nature Reserve are inadequate for the number of tourists that the Reserve receives annually. A crust forms in the existing septic tank which blocks the overflow to the conservancy tank. During peak season (December) the Reserve receives approximately 400 visitors per day, which means the conservancy tanks needs to be emptied every 3 days. When the Bitou Municipality Tanker Services arrive, the parking lot is already filled with vehicles of visitors; therefore, there is no parking space for the Tanker Services. They also become unreliable during peak season due to the high demand of added holiday homes. The overloaded sewer system overflows and spills onto the parking area, which is a health risk and a nuisance and is an unacceptable environmental impact.

There are several proposed solutions and alternatives to the abovementioned problems which are discussed and assessed.

Option 1 is to install a gravity outfall sewer from the existing ablution block to the nearest existing manhole. This will be sufficient for the existing ablution facilities as well as any further additions required. The existing septic tank will be abandoned, and the incoming sewer will flow directly into the manhole located next to the existing septic tank.

A 100mm flush pipe will be installed at the bottom of the existing water tank to accommodate the low flow conditions and the flat gradient which is prone to blockage. The section of pipeline route in the Reserve will be installed on the surface as far as possible to limit unnecessary excavations and disturbance to the surrounding environment. A minimum amount of excavation will however be required. A concrete structure will form the casing around the pipeline, with locally sourced rocks the surrounding vegetation will limit the visual impact. **Option 1 is the preferred, alternative** due to low installation and operational cost (maintenance) and as it is supported by Heritage Western Cape (HWC).

Please note that any changes to, or deviations from the scope of the proposal (as described above) must be accepted or approved, in writing, by the Competent Authority (CA: DFFE), before the changes or deviations may be implemented.

2.1 LISTED ACTIVITIES ASSESSED IN THE ENVIRONMENTAL IMPACT REPORT

Listing Notice 1 (GN No. 327)		
Activity number	Description of activity	Reason for listing
17	<p>Development—</p> <ul style="list-style-type: none"> i. In the sea; ii. in an estuary; iii. within the littoral active zone; iv. in front of a development setback; or v. if no development setback exists, within a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever is the greater; <p>in respect of—</p> <ul style="list-style-type: none"> (a) fixed or floating jetties and slipways; (b) tidal pools; (c) embankments; (d) rock revetments or stabilising structures including stabilising walls; or (e) infrastructure or structures with a development footprint of 50 square metres or more — <p>but excluding—</p> <ul style="list-style-type: none"> (aa) the development of infrastructure and structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (bb) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) the development of temporary infrastructure or structures where such structures will be removed within 6 weeks of the commencement of development and where coral or indigenous vegetation will not be cleared; or (dd) where such development occurs within an urban area. 	<p>Sections of the proposed gravity sewer line will be located within 100m of the high-water mark, although at a much higher elevation due to the topography of the Robberg peninsula.</p>
Listing Notice 3 (GN No. 324)		
Activity number	Description of activity	Reason for listing
12	<p>The clearance of an area of 300 square metres or more of indigenous vegetation except where such</p>	<p>Robberg Provincial Nature Reserve, established as a Provincial Nature</p>

	<p>clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>i. Western Cape</p> <p>i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</p> <p>ii. Within critical biodiversity areas identified in bioregional plans;</p> <p>iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas;</p> <p>iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or</p> <p>v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.</p>	<p>Reserve in terms of Section 6 the Nature and Environmental Conservation Ordinance, 1974, on 25 July 1980 and proclaimed in the Provincial Gazette by Proclamation No. 172/1980. The installation of the gravity sewer line will require minimal vegetation clearance. The entire section within the Reserve is approximately 440m.</p>
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2.2 MANAGEMENT OUTCOMES AND OBJECTIVES FROM THE BASIC ASSESSMENT RERPORT (BAR)

Pre-Construction & Construction phase impacts:

- J **Clearance of vegetation (pre-construction & construction)** – Vegetation disturbance will be limited to the pipeline route and will be cleared / pruned by hand. Material stockpile and cement mixing will be done in the existing parking area (of the Robberg Nature Reserve) and carried to the desired location by hand (wheelbarrow) – using only the approved route. The mitigation measures as recommended in the specialist report have been incorporated into the Draft EMPr for implementation.
- J **Noise & odour (construction)** – Potential, limited noise impact during the construction phase. Noise levels are not expected to exceed any standards and should not generate a nuisance as long as compliance with the EMPr and CapeNature’s standards and working hours.
- J **Employment opportunities (construction)** – Employment opportunities and expertise will be added to the local community during the construction phase ONLY - will result in a short-term positive impact upon the local economy.
- J **Visual Impact (construction)** – The gravity sewer line will be installed at ground level with limited excavation due to the rocky landscape. The exposed pipe could have a negative visual impact and as such the pipeline will be enclosed/cladded with locally

sourced rocks to minimise the negative visual impact. The disturbance footprint will be limited to the pipeline route and as such the natural vegetation surrounding the pipeline footprint will act as a natural visual barrier. Transplanted vegetation will be replanted within the disturbed footprint once the construction is complete to remove any signs of trampling during construction. Natural germination along the pathway will be encouraged through the gentle loosening of any compacted soil.

Construction related visual impact will be short term and mitigated by the installation and maintenance work zone demarcation.

-) **Cultural and heritage resources (pre-construction & construction)** – Robberg Nature Reserve is a known Provincial Heritage Site and has the Nelson Bay Cave. The archaeologist (Dr Peter Nilssen) recorded an area containing mixed mostly low-density scatter of materials and debris of Later Stone Age and modern origin along the proposed pipeline route. The engineers confirmed that the pipeline can be realigned to avoid this heritage resource midden.

The EMPr indicates what needs to be done should any Heritage resources be uncovered during installation. All contractor staff are to be made aware of the potential for heritage resources to be uncovered and what shape or form they may take and the procedure that is to be followed should they be uncovered during environmental induction as per the EMPr.

-) **Erosion** – Erosion was considered as an environmental impact, however since topsoil is limited due to the rocky landscape, soil erosion is not anticipated to be a problem. Mitigation measures are included in the EMPr should erosion become evident during construction.

Operational environmental impacts are not assessed in this Basic Assessment Process since the operational aspect will be monitored and managed by CapeNature.

3 CONDITIONS OF AUTHORISATION

The conditions contained in the Environmental Authorisation (EA) will be inserted at this point once issued. It is binding on the applicant, contractors, sub-contractors, agents, construction / maintenance staff and consultants for the activity.

4 TERMS AND REFERENCE

The main terms of reference of this EMPr are to identify and mitigate any potential negative environmental impacts that may be associated with the proposed project.

The full and approved EMPr must be made available to all contractors working on the project and must be included in all tender documentation. Certain fundamental aspects are therefore of importance:

The EMPr and these requirements are binding on all contractors and their sub-contractors.

It is the responsibility of the applicant/ holder to ensure that any contractor(s) or sub-contractor(s) is made aware of the environmental requirements.

The **applicant / contractor** will be required to make good any damage caused through their actions or the actions of their sub-contractors (in addition to any penalties for non-compliance issued).

4.1 ENVIRONMENTAL CONTROL OFFICER (ECO)

An Environmental Control Officer (ECO) **must** be appointed to oversee the pre-construction, construction, and rehabilitation phase of the project, to ensure compliance with the Environmental Authorisation (EA, once issued) and the EMPr and to assist with issues as they may arise on-site.

It will be the ECO's responsibility to ensure that the mitigation and rehabilitation measures including referred to in the EA (**still to be issued**) are implemented and complied with by the applicant and contractor(s).

The **applicant** will be responsible for the remuneration of the ECO and any other expenses encountered in the process of environmental monitoring of the pre-construction, construction, and rehabilitation phase of the project.

4.1.1 SELECTION OF THE ECO

The appointed ECO must be able to demonstrate that (s)he is of sufficient competency to undertake the required task. This includes:

-)] Previous experience of environmental control of similar sites.
-)] Working experience with contractors.
-)] Knowledge of the particular project and expected areas of concern.

4.1.2 ROLES AND RESPONSIBILITIES OF THE ECO

The ECO will undertake the following tasks:

-)] Ensure **compliance** with the EMPr at all times during the pre-construction- and construction phase of the project;
-)] Ensure compliance with the relevant management **conditions** of the EA (**to be issued**) during the pre-construction- and construction phase of the project;
-)] Ensure that the necessary permits (in accordance with the prescribed requirements) are in place for the transplant of any endangered plant species in terms of Nature Conservation Ordinance Act (19 of 1974) and / or the pruning, removal and / disturbance of protected tree species in terms Section 15 of the National Forestry Act (84 of 1998, as amended) before the commencement of construction;

- J To work in close co-operation with the resident engineer and contractor(s) of the project;
- J Meet with all relevant contractor(s) in order to set out the environmental parameters within which they must work (pre-construction phase);
- J Provide an Environmental Induction (Environmental Education) with all contractor(s), sub-contractor(s) and staff **prior** to the commencement of any work on-site (pre-construction phase);
- J Indicate where all no-go areas are to be demarcated and to ensure adherence to the delimitations at the induction **BEFORE** any construction commences on-site;
- J The ECO is to provide a detailed No-Go map for the work to be done before construction starts in consultation with the engineers.
- J Make recommendations regarding the best environmental practice (pre-construction and construction phase);
- J Indicate where **plant rescue** will be required and what species should be rescued on this site (pre-construction phase);
- J Ensure compliance with additional pre-construction mitigation measures set out in this report;
- J Indicate where **erosion** protection and sedimentation prevention measures are required or need to be supplemented and to ensure correct implementation;
- J Check up on general environmentally friendly construction practices (e.g., no littering, safe and secure environment, contamination risks, no impact on the adjacent lands;
- J Ensure that the correct earthworks practices are adhered to (e.g., no encroachment into surrounding vegetation, separation of topsoil and subsoil, correct stockpiling and stripping of topsoil);
- J Provide a report back at site meetings and / or report to the contractor and applicant following inspection, to report on and assess the success of the environmental control and to determine any further environmental control measures which may be necessary;
- J The ECO should visit the site **weekly** during the construction phase of the proposed project, including rehabilitation following construction. The ECO is to be available at any time as required by the contractor, resident engineer or authorities;
- J The ECO is to provide guidance and advice on the rehabilitation measures that should be implemented following construction phase. The ECO is to conduct **weekly** inspections of the rehabilitation phase until deemed sufficient;
- J The ECO has the discretion to undertake more frequent visits if he/she feels this is justified due to the actions of the contractors and to make ad hoc visits in order to ensure compliance.
- J The ECO is to keep a site diary; photographic record of activities taking place on-site, a schedule of current site activities including the monitoring of such activities and a copy of the complaints register of all public complaints and the remedies applied to such complaints.
- J The ECO is to submit a **monthly** compliance monitoring report during the construction phase. The monitoring report must be submitted to the application, and contractor.

- J The ECO is to provide a **final completion report** following the construction and rehabilitation phase of the project. The report must be submitted within 6 months of the completion of the construction phase of new dam. The report must be submitted to the competent authority (DFFE) and the applicant.
- J It must be noted that the **ECO HAS THE AUTHORITY TO SUSPEND WORK ON SITE FOR ANY ACTION BEING UNDERTAKEN THAT DOES NOT COMPLY WITH THE ENVIRONMENTAL REQUIREMENTS OF THE SITE**. Such a stop order has immediate effect and will be communicated through the resident engineer to the contractor responsible.

5 SPECIFICALLY REQUIRED ENVIRONMENTAL MANAGEMENT PRACTICES

The following specific Environmental Management requirements have been identified and should be implemented during the:

5.1 PRE-CONSTRUCTION PHASE

5.1.1 ENVIRONMENTAL INDUCTION

All construction staff should be briefed by the ECO in an environmental education programme regarding the environmental status and requirements of the site before the commencement of any activities on the site. This will include providing general guidelines for minimising environmental damage during the construction, as well as education with regards to basic environmental ethics, such as prevention of littering, lighting fires etc. Records of environmental training (attendance register and training content) must be kept. Please refer to Annexure B of this EMPr.

Induction is required for all contractors, sub-contractors and associated staff before them commencing on site.

5.1.2 METHOD STATEMENT

The contractor and Site Agent shall, **prior to the commencement** of activity involving construction, maintenance, or rehabilitation, give the ECO a written plan setting out the following:

- J Location of the construction camp or laydown area;
- J Storage of construction materials and hazardous substances (if necessary);
- J Solid waste management;
- J Wastewater disposal/management;
- J Erosion and sedimentation control;
- J Protection of natural features;
- J Access to site;
- J Fire control;

) Cement and concrete batching.

The ECO is to approve the method statement before the work may commence. A pro-forma method statement showing what is required is attached in Annexure C.

5.1.3 PLANT RESCUE AND CLEARANCE AND ANIMAL PROTECTION

Protection of flora (vegetation):

The clearance of vegetation within the working zone of the installation of the gravity outfall sewer will be required. A botanical specialist assessment has conducted as part of the assessment phase. Endangered, Vulnerable and Near-Threatened plant species was noted by the botanical specialist and is listed below.



***Lampranthus pauciflorus* (Endangered) found on site (Hoare, 2021) – transplant / disturbance should be avoided is possible. A permit for the transplant of these species will be required**



***Psoralea vanberkelae* (Vulnerable) found on site (Hoare, 2021) – transplant / disturbance should be avoided is possible**



***Selago burchellii* (Vulnerable) found on site (Hoare, 2021) – transplant / disturbance should be avoided is possible**



***Freesia leichtlinii* subsp. *alba* (Near Threatened) found on site (Hoare, 2021)– should be avoided**

It is recommended that the footprint of the sewer line is pegged by a surveyor and inspection of the working zone is to be conducted by the ECO well in advance before the commencement of construction. Should any of the listed endangered, vulnerable, or near-

threatened species be located within the working zone, the sewer line must be shifted (if possible) to avoid the disturbance and / or transplant of these plant species. If these species cannot be avoided, the necessary permits must be applied for at CapeNature. No impact on the near-threatened ***Freesia leichtlinii* subsp. Alba** may occur. **The botanical specialist is to advise on the plant rescue programme and on where the species rescued should be planted within the reserve.**

All endangered species or protected species listed in **Schedules 3 and 4** respectively, in terms of the Western cape Nature Conservation Laws Amendment Act, 2000 (Act No. 3 of 2000) may not be picked or removed without the relevant permit, which must be obtained from CapeNature. The ECO is to obtain such permits from the relevant Conservation Services Officials at the George CapeNature Regional Office or <https://www.capenature.co.za/permits-information/>.

Details of the botanical specialist that formed part of the assessment phase:

Name	Email	Cell
Dr David Hoare	dhoare@lantic.net	087 701 7629

A NFA permit application will be require for the pruning, disturbance, transplant and/ or the removal of any protected tree species in terms of the NFA. As such, should any disturbance, pruning, transplant and / or the removal of Milkwood trees (*Sideroxylon inerme*) located within and / or adjacent to the working zone, a license will be required. These trees may not be touched once the license is in place.

It will be the responsibility of the applicant / contractor to notify the ECO well in advance to inspect the pegged working area in order to advice accordingly.

Any transplantable species (trees, shrubs, succulents, geophytes etc.) which occur within the working area should be either stored in an **on-site nursery** for later use in the rehabilitation phase or directly transplanted into the surrounding open space areas of the reserve - by a qualified contractor.

For successful transplant a sod including the desired plant with its roots intact should be removed and replanted. Plants that are to be kept within the temporary nursery should be planted into black plastic bags and watered (as required).

A record of rescued plants is to be maintained (please refer to the attached table that should be filled out in Annexure D).

Vegetation clearing may **only** commence once plant rescue is completed. All cut vegetation shall be chipped and used as mulch or deposited of off-site at an approved disposal site. Stockpiling of cut vegetation shall only be permitted in areas indicated by the ECO. **No cut vegetation shall be burned on-site.**

NO removal, damage or disturbance of flora outside of the immediate construction area is permitted.

Protection of fauna (animals):

Before the commencement of plant rescue and vegetation clearance activities or the use of any equipment on-site, animal rescue of small, slow-moving species is to be conducted in conjunction with the ECO. Any rescued animals including tortoises and other reptiles are to be safely relocated to a nearby undisturbed natural area that does not form part of the proposed construction area / working zone. During any construction phase, the disturbance to fauna within the area is to be **avoided** and where a conflict arises, the ECO should be asked for assistance (e.g., snakes found in excavated areas or within the working zone etc.).

The contractor(s) shall ensure that no hunting, trapping, shooting, poisoning or otherwise disturbance of any fauna takes place.

NO removal, damage or disturbance of fauna located outside of the immediate construction area is permitted.

Activities	Size and Scale	Mitigation Measures	Timeframe for Implementation	Method of Monitoring Implementation	Frequency of Monitoring	Responsible Persons	Compliance Monitoring
Pre-construction and construction phase							
Clearance of vegetation	Length of the pipeline and working zone	<ul style="list-style-type: none">) Inspection of the working zone prior to the commencement of plant rescue / vegetation clearance and ongoing inspection during the construction) Necessary permits to be obtained and must be in place prior to the commencement of activities on site) No vegetation outside of the working may be affected, disturbed and / or removed 	Pre-construction and construction phase	ECO to inspect the working zone prior to the commencement of any activities on site Permit applications to be done well in advance Plant rescue to be done prior to the pre-commencement of vegetation clearance	One inspection by the ECO to be done well in advance in order to determine the necessary permits Weekly inspection of the pre-construction activities (vegetation clearing) will be required	ECO to monitor compliance and Applicant/contractor to ensure that the working zone is pegged out well in advance and ECO is to be notified to inspect the footprint areas ECO, Applicant and Contractor to ensure that the necessary permits are in place ECO to ensure that plant rescue is conducted. Contractor to be advised by the ECO what plants to rescue and methods to be implemented Contractor to monitor adherence to no-go demarcation and inspection of the site for any additional	ECO to sign-off plant-rescue and demarcation of the working area To be included in compliance monitoring report

		<ul style="list-style-type: none">) Clear demarcation of the working areas must be in place) Inspection of the working zone prior to the commencement of work within a section of the pipeline in order to conduct animal rescue) Inspection of excavation prior to closing 				plant or animal rescue	
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5.1.4 DEMARCATION OF WORKING ZONE AND NO-GO AREAS

The working zone (section of sewer line that will be installed) must be adequately demarcated **prior** to the commencement of any vegetation clearance. Demarcation should be shifted as work progresses.

ALL AREAS OUTSIDE OF THE WORKING FOOTPRINT MUST BE REGARDED AS NO-GO AREA.

All people working on site must be made aware of the boundaries in which work is to be done. Those areas, in which **no** work is required, are to be considered as no-go areas.

The following applies:

-) All construction activities must be restricted to the approved site development plan and must remain within the demarcated areas to ensure no further disturbance to surrounding vegetation and / or private land. All areas outside of the immediate working area will be deemed as no-go areas;
-) No encroachment or activities may take place outside of the working areas;
-) No-go areas will be required to be demarcated by the contractor to ensure that they are visible at all times, to all personnel;
-) Methods of demarcation will be agreed with the ECO and may include danger tape, rope, fencing, shade cloth, mulch bags, wire fencing etc. (as required);
-) In light of the above, should access be required through a no-go area, permission must be obtained from the ECO in writing prior to the use of such an area.
-) Demarcation of any trenches (if required) with using danger tape, rope, etc.
-) No disturbance may be caused to the adjacent open space areas forming part of the reserve which has been highlighted as a sensitive areas;
-) Adjacent properties to the construction site (outside of the reserve) may not be entered by any construction staff if permission is not granted by the owner;
-) The ECO should monitor adherence to the No-Go area policy.

-) Access into the No-Go areas by personnel is strictly forbidden (i.e., Work breaks such as lunch are not permitted outside the defined work area - no entry into the neighbouring properties or open space areas). **A spot fine will be imposed against the contractor in the event of contravention of the no-go policy up to a maximum of R10 000 per incident).**
-) Dedicated access roads (paved road within the reserve and tar roads outside of the reserve) must be used, no deviations allowed from the agreed access road prior to consultation with the ECO.

Activities	Size and Scale	Mitigation Measures	Timeframe for Implementation	Method of Monitoring Implementation	Frequency of Monitoring	Responsible Persons	Compliance Monitoring
Pre-construction and construction phase							
Demarcation of No-Go area and protection of sensitive areas	Length of the pipeline & construction material stockpile area	<ul style="list-style-type: none">) The contractor is to comply with the requirements of the EMPr) The contractor is to install adequate demarcation of the working area, to limit movement of personnel) Demarcation of working areas is required by means of shade netting, danger tape, rope, or any suitable alternative 	Pre-construction and construction phase	ECO to sign off demarcation and monitor compliance to and maintenance of the demarcation	ECO to conduct weekly inspections of construction works	Contractor to install demarcation, ensure compliance and maintenance for the duration of the construction and rehabilitation phase ECO and contractor to monitor the site	ECO to monitor during the construction phase. To be included in the monthly monitoring report

5.1.5 TOPSOIL AND SUBSOIL MANAGEMENT

Minimal vegetation clearance /topsoil disturbance will take place. The pipe will be laid on the ground surface in some areas and buried in others, depending on the soil and site conditions. Where excavations are required, topsoil must be stripped before work commences and needs to be stockpiled adjacent to the trench or within a demarcated area.

-) **No** topsoil stripping is to take place **BEFORE** the completion of the plant rescue programme.
-) Topsoil and sub-soil should be stored separately.
-) The soil removed for installation of the pipeline (which will all be underground) must not be removed, but placed to the side of the trench, while the sub-soil is placed to the other side. The soil is returned in the same order with the vegetated topsoil closing the trench and stimulating re-growth.

Activities	Size and Scale	Mitigation Measures	Timeframe for Implementation	Method of Monitoring Implementation	Frequency of Monitoring	Responsible Persons	Compliance Monitoring
Pre-construction and construction phase							
Removal of topsoil and sub-soil for the construction of a new gravity outfall sewer	Length of the pipeline. Depth will depend on soil and soil conditions.	<ul style="list-style-type: none">) Topsoil stripping and storage must be done prior to the commencement of construction activities) Subsoil that will not be used within construction is to be carted off site and disposed of at an approved landfill site) Additional topsoil must be used within the rehabilitation phase 	Pre-construction and construction phase	ECO to monitor compliance throughout the pre-construction and construction phase	Continual monitoring of compliance	<p>Contractor to ensure that stockpiling of topsoil is done and maintained throughout the construction phase</p> <p>Contractor to ensure that the topsoil is used in rehabilitation and subsoil not used within the construction phase is carted off site and disposed of at an approved landfill site</p> <p>ECO to monitor</p>	To be included in compliance monitor report

5.1.6 HERITAGE AND CULTURAL RESOURCES

A specialist study was done by Dr Peter Nilssen (Statement to Accompany HWC NID (HWC Case No.: 20071308) 27 November 2020) that concluded the following *“Given that the proposed activity will not change the planning status of the Provincial Heritage Site, nor will it have a negative impact on any of the heritage resources for which the site obtained its PHS status, it is recommended that a permit for the proposed activity is not warranted. Furthermore, and for the same reasons, it is recommended that a Heritage Impact Assessment for the proposed activity is not necessary.”*

Should it be suspected that an object or structure of heritage value has been uncovered during the clearing of vegetation (including but not limited to bones, burial sites, structures older than 50years, stone tools, shell middens, pottery etc.), then all work is to immediately **cease**, and the ECO is to be contacted to inform Heritage Western Cape (HWC). Work shall not recommence until HWC have visited the site, inspected the object in question and advised on how to proceed. If the object requires removal by a trained archaeologist, this process will be at the expense of the developer. It is the contractor’s responsibility to ensure all staff on site is aware of this procedure.

Activities	Size and Scale	Mitigation Measures	Timeframe for Implementation	Method of Monitoring Implementation	Frequency of Monitoring	Responsible Persons	Compliance Monitoring
Pre-construction and construction phase							
Vegetation clearance and earthworks required for the construction of a new gravity outfall sewer	Length of the pipeline. Depth will depend on soil and soil conditions.	) Should any object or structure of heritage value be discovered, work is to cease, ECO is to be contacted and advise accordingly	Pre-construction and construction phase	ECO to monitor compliance throughout the pre-construction and construction phase	Continual monitoring of compliance	Contractor to ensure that work cease should any object or structure of heritage value be discovered, and the ECO should then be contacted The ECO is to contact HWC and advise accordingly	To be included in compliance monitor report

5.1.7 SITE AGENT

The contractor must appoint a responsible agent to ensure that they comply with this EMPr, EA and all its conditions. This party is to report directly to the ECO, engineer and contractor on matters concerning the environment, will need to attend the environmental induction and be briefed on the requirements by the ECO. It is recommended that communication regarding queries, concerns and updates is done through phone calls, electronic photos, emails, and reports.

5.1.8 SITE CAMP

-) If a camp site is to be set up during the construction phase, the area must be indicated and approved by the ECO – This area should be located within the parking area and must not be located near any sensitive regions.
-) Ablution facilities (chemical toilets) are to be provided and maintained at the camp site for use of the staff at a ratio of one (1) toilet to every 15 workers.
-) A **fenced-off** area within the parking area must be created within the camp site for refuse and waste management. Refuse is to be collected in separate weatherproof, scavenger proof containers, containers for recyclable materials (glass, metal, paper, and plastic) and the other for non-recyclable materials. These are to be disposed of at the various approved waste disposal sites.
-) No accommodation with the exception of a night watchman is permitted on-site by contractor(s) or their staff during the construction period.
-) **No open fires are to be permitted.**
-) Storage of all materials required for the contract must occur within this camp site, or otherwise approved area (by the ECO).
-) Any cement mixing or concrete batching plant areas must be located within the site camp.
-) Adequate signage must be erected at the construction site to ensure that safety regulations are adhered to.

- J Should a temporary nursery be established for the duration of the contract, it should be located within the site camp and the area is to be demarcated to ensure that no machinery damage any of the plants. It will be the responsibility of the contractor to ensure that the rescued plants in the nursery are watered regularly and as required.

5.1.9 STORAGE OF CONSTRUCTION MATERIAL

The following must be adhered to:

- J All stockpile sites are to be approved by the ECO and/or landowner, **prior** to commencement of stockpiling.
- J All stockpile sites are to be properly demarcated with silt-fences and/or danger tape, where necessary.
- J All construction material should be stored within the site camp / boundary (if space allows it).
- J **No** construction material may be stored outside of the demarcated construction zone.
- J Hazardous materials must be stored inside the construction site camp and must always be within a bunded area.

5.1.10 FIRE PROTECTION

The contractor should take all reasonable and active steps to avoid increasing this risk (especially to prevent damage to surrounding properties and vegetation). **No** open fires or naked flames for heating or cooking are allowed anywhere on site. The contractor must ensure that all personnel are aware of the fire risk and the need to extinguish cigarettes before disposal. **Cigarettes may not be discarded onsite and must be disposed of properly in receptacles for this purpose.**

No burning of waste on ANY PART of the site is to be permitted.

The contractor must notify the authorities responsible for fighting fires in the area and must liaise with them regarding procedures if a fire start. The contractor shall ensure that all staff members are aware of the fire danger at all times and are aware of the procedure to be followed in the event of a fire. The contractor must also ensure that all the necessary telephone numbers etc. are posted at conspicuous and relevant locations in the event of an emergency. The contractor shall advise the relevant authority of a fire as soon as one starts and shall not wait until he can no longer control it.

Activities	Size and Scale	Mitigation Measures	Timeframe for Implementation	Method of Monitoring Implementation	Frequency of Monitoring	Responsible Persons	Compliance Monitoring
Construction phase							
Fire protection during the Construction of the new gravity outfall sewer	Length of the pipeline. Depth will depend on soil and soil conditions	Emergency contact details must be placed at conspicuous and relevant locations in the event of an emergency	Pre-construction and throughout construction phase.	ECO or H&SO to confirm that the emergency contact detail list is posted	Once-off – must be in place pre-construction	Contractor	ECO and / or H&SO to monitor once during pre-construction

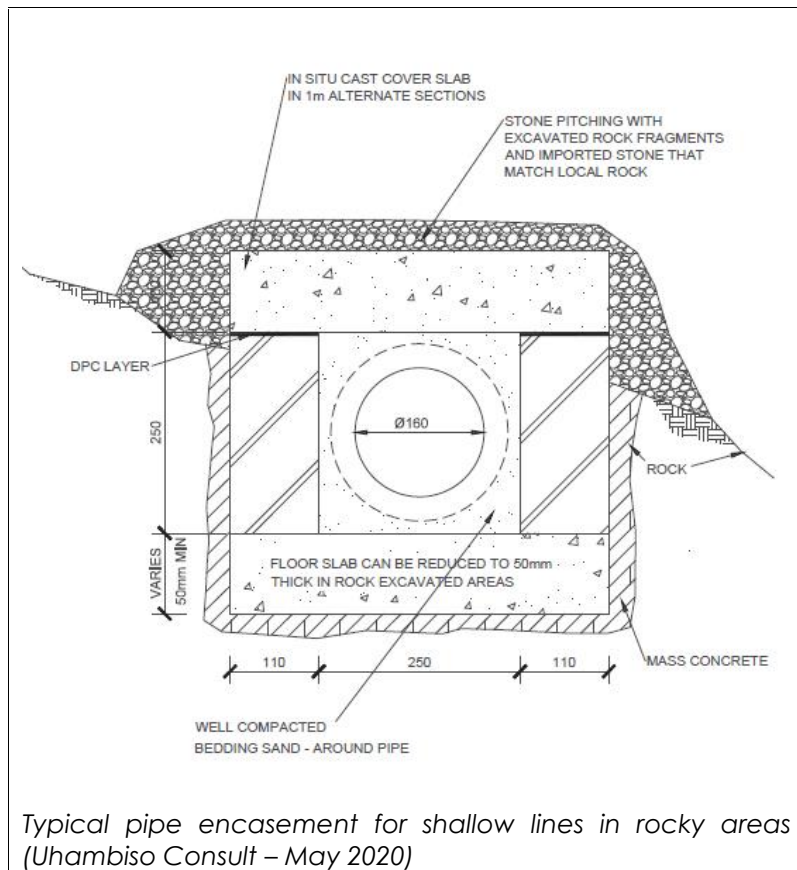
5.2 CONSTRUCTION PHASE

5.2.1 INSTALLATION OF THE GRAVITY SEWER LINE

The setting out of the gravity sewer line must be done by a registered surveyor and in consultation with the Engineer, ECO, and reserve Manger to ensure that minimal biodiversity disturbance occurs.

Construction stockpile area is to be demarcated (please refer to 5.1.4 for approved methods). No construction material may be stockpiled outside of the demarcated area without approval from the ECO.

The pipeline will be installed below- and aboveground depending on the site conditions. In very rocky areas the pipeline will be installed as close to ground level as possible. Therefore, limited excavations will be required to install the pipeline belowground in areas suitable. No heavy machinery may be used to dig these trenches. Trenches are to be dug by hand (where the site conditions allow it) or with a mini excavator. A maximum of 0.5m on either side of the trench will be granted for working area. **Under no circumstances may the construction activity expand into the natural area beyond the working zone.**



Concrete batching must be done in the construction site camp (existing parking area) only and carted to the desired area along the pipeline.

Activities	Size and Scale	Mitigation Measures	Timeframe for Implementation	Method of Monitoring Implementation	Frequency of Monitoring	Responsible Persons	Compliance Monitoring
Construction phase							
Installation of the new gravity outfall sewer	Length of the pipeline. Depth will depend on soil and soil conditions	<ul style="list-style-type: none"> J Sewer line to be pegged by a surveyor in consultation with the ECO and Engineer and reserve manager. J Trenching to be done by hand or a mini excavator, no heavy machinery is allowed. J A maximum of 0.5m is granted on either side of the trench for 	Pre-construction and throughout construction phase.	ECO or H&SO to confirm that the emergency contact detail list is posted	Once-off – must be in place pre-construction	Contractor	ECO and / or H&SO to monitor once during pre-construction

		working space. J Concrete batching is only allowed in the existing parking area (construction site camp and stockpile area).					
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5.2.2 WASTE MANAGEMENT

It is recommended that an integrated waste management approach is used which is based on waste minimisation and includes reduction, recycling, re-use and disposal where appropriate. Only approved waste disposal methods are allowed. The contractor(s) must ensure that all site personnel are instructed in the proper disposal of all waste. The contractor(s) must ensure that **sufficient disposal facilities** are available throughout the site. **Recycling** must be encouraged on-site and recycling bins should be provided and clearly marked.

The contractor(s) must ensure that the site is maintained in a neat and tidy condition and kept free of litter. Staff must be clearly briefed on the 'no litter policy'. Measures must be taken to reduce the potential for litter and negligent behaviour concerning the disposal of all refuse. At all places of work, the contractor(s) must provide litter bins, containers and refuse collection facilities for later disposal. **All rubbish bins must be cleaned / emptied regularly.**

Should any solid waste be generated it may be temporarily stored on-site in a designated area approved by the ECO before collection and disposal. Solid waste must be removed weekly to a licensed municipal waste site. Waste storage containers must be covered, tip-proof, weatherproof and scavenger proof. The waste storage area shall be fenced off to prevent windblown litter.

No burning, on-site burying or dumping of waste shall occur. No illegal dumping of construction material may take place. No un-used construction material may be left on-site.

All hazardous waste must be disposed of at an approved **hazardous landfill site**. The contractor(s) shall provide **disposal certificates** to the ECO.

5.2.3 ABLUTION FACILITIES

The contractor must provide temporary (chemical) ablution facilities for all construction personnel working on-site. One (1) facility for every 15 persons on site is required. Toilets must be of a neat construction and must be provided with doors and locks and must be secured

to prevent them from blowing over. Sanitation provision and servicing shall be to the satisfaction of the environmental control officer.

The contractor must ensure that the toilet(s) are emptied regularly and also before weekends and public holiday periods.

Failure to use the chemical toilet provided and making use of the vegetation either on or off-site will result in maximum penalty fine being awarded in addition to requiring the contractor to clean up.

5.2.4 NOISE, VISUAL, ACCESS AND DUST MANAGEMENT

-) The contractor is to ensure that construction activities are limited to **normal working hours (7:00 to 18:00 during weekdays)**;
-) All equipment working on-site should be in a well-maintained condition to minimise noise generation during construction works.
-) The construction site must be in a neat and tidy condition at all times.
-) Dust management measure must be implemented as required, which include spraying of water of dirt roads and or cleared areas and stockpiles etc.

Activities	Size and Scale	Mitigation Measures	Timeframe for Implementation	Method of Monitoring Implementation	Frequency of Monitoring	Responsible Persons	Compliance Monitoring
Construction phase							
Noise and visual disturbance during construction Site Access Construction related dust	Length of the pipeline. Depth will depend on soil and soil conditions	<ul style="list-style-type: none">) Work is only to be done normal working hours.) Machinery and vehicles must be in a well-maintained condition.) If and when required, dust suppression measures must be implemented - This may include the spraying of water over dirt roads etc. 	Construction phase	<ul style="list-style-type: none"> Contractor to monitor and implement noise, visual and dust mitigation measures ECO to monitor compliance 	Contractor to monitor daily and ECO to conduct site inspections	Contractor to implement mitigation measures and ECO to monitor compliance	To be included in monitoring report

5.3 CONSTRUCTION TIMEFRAME

-) Construction must not commence before the plant search and rescue has been done with assistance from ECO and/or a botanical specialist.

-) Construction activities are to be done during normal working hours and during off - peak season

5.4 REHABILITATION PHASE

Topsoil must be placed back on top of any exposed areas and disturbed areas. The installed pipeline is then to be cladded in locally sources rocks and rescued plants and other locally indigenous plants (ECO to provide species list) to be replanted within the rehabilitated area to limit the visual scar.

All construction rubble and excess material must be removed from site and disposed of at an authorized disposal facility. The parking area must be cleaned to the satisfaction of the reserve manager.

Exposed and disturbed areas within the road reserve and outside of the Nature Reserve must be rehabilitated by placing topsoil back on top of the buried pipeline. The topsoil should then be seeded with local and indigenous grass seeds and/or local and indigenous plants (ECO to provide a species list).

Activities	Size and Scale	Mitigation Measures	Timeframe for Implementation	Method of Monitoring Implementation	Frequency of Monitoring	Responsible Persons	Compliance Monitoring
Rehabilitation phase							
Rehabilitation of affected / disturbed areas	Length of the pipeline. Depth will depend on soil and soil conditions	<ul style="list-style-type: none">) All construction rubble and excess material must be disposed of at an authorised disposal facility.) Local and indigenous (and the rescued) plants are to be replanted along and within the disturbed areas.) The construction stockpile site (parking area) must be cleaned to the satisfaction of the Reserve Manager. 	Rehabilitation phase immediately following the construction phase.	Contractor to implement rehabilitation measure and ECO to advise accordingly and monitor	ECO to monitor weekly during rehabilitation phase and once within 6 months of completion to monitor the rehabilitation.	ECO to sign-off rehabilitation measures implemented as well as indigenous vegetation prior to the re-vegetation of the affected areas Contractor to ensure that all rehabilitation measures are implemented as required	ECO to sign-off and to be included in compliance monitoring report

6 MONITORING REQUIREMENTS AND REPORTS

- J An **induction** meeting with the ECO and the contractor to ensure that they are aware of the requirements of this EMPr and the EA before the commencement of any activities on site. Induction registers to be kept for all contractors on site.
- J The ECO must inspect the site prior to commencement of activities to identify and mark (tag) plants to rescue and demarcate the no-go areas.
- J The ECO is to do a site inspection **once a week** during the construction and rehabilitation phase and submit a **monthly** compliance monitoring report to the contractor and applicant.
- J The ECO monitoring reports are to advise on any remedial actions or changes that are required to the method statements in order to ensure that the impacts identified and any that may become evident are mitigated and managed.
- J Upon **completion** of the construction phase, a **final compliance monitoring report** must be submitted by the ECO to sign-off compliance with environmental requirements. The report must be submitted to DFFE and the applicant within 6 months of the completion of all construction activities (irrespective of the status of the rehabilitation).

7 AUDIT REQUIREMENTS

- J The holder of the Environmental Authorisation (EA) may be required to appoint a suitable and qualified independent EAP to conduct any Audits as required by DFFE in the EA.
- J The audit is to report on the success of the implementation of the EA and the EMPr as the case may be.

Table 1: Specific dates referenced in the EA (to be issued and to be filled out once EA has been received)

Date of issue of EA:	
Commencement must take place before	
Completion date for all EA activities	

8 OPERATIONAL PHASE

This EMPr will not cover any operational phase aspects as it will be dealt with in accordance with the Robberg Nature Reserve Complex Management Plan (Please see Annexure G). Any maintenance activity within the Nature Reserve will need to comply with the Reserve’s Management Plan. Maintenance of the section outside of the Nature Reserve (within the Road Reserve) will need to comply with the General Management practice associated with the Routine Road maintenance of DR1769 and Bitou Municipality.

9 DECOMMISSIONING PHASE

It is not foreseen that decommissioning of an essential service such as the sewage services is not likely to take place, however, should there ever be a need for decommissioning; all material foreign to the site must be removed and must be disposed of at an approved waste disposal site. All affected areas must be rehabilitated with topsoil and seeded and / or planted with locally occurring indigenous vegetation to protect against soil erosion.

Any material that can be recycled should be recycled.

10 PENALTIES FOR NON-COMPLIANCE

Penalties in terms of Chapter 9 of the Western Cape Bill on Planning and Development as published in the Extraordinary Provincial Gazette No 5183, 3 October 1997, are applicable for any action, which leads to damage to the natural environment.

In addition to the penalties in terms of the Act (NEMA), spot fines up to a maximum value of **R10 000 per offence** can be instituted at the discretion of the ECO for any breach or non-compliance in terms of the EMPr (**FINES ISSUED WILL INCREASE EXPONENTIALLY FOR REPEAT OFFENCES**).

In the event of damage being caused, the contractor will be responsible for the cost of clean-up, repair, or rehabilitation as necessary, as well as being liable for the fine.

A fund is to be established for the collection of fines and the spending of this fund is to be at the discretion of the ECO for environmental rehabilitation of the area.

11 CONCLUSION

This EMPr is binding on all contractors on site and constitutes Best Practice for construction activities. This EMPr may be updated with specific conditions required by the Environmental Authorisation (EA), **once issued**.

WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE

SITE SPECIFIC HEALTH AND SAFETY SPECIFICATION

PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM

PROJECT DETAILS

PROJECT NUMBER:

PROJECT TITLE:	PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM
PROJECT LOCATION:	ROBBERG NATURE RESERVE
CLIENT:	WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE
DESIGNER:	UHAMBISO CONSULT (PTY) LTD
CHSA:	FSG COMPLIANCE SPECIALISTS
CONTRACTOR:	Tender Stage

DOCUMENT CONTROL

REVISION #	DATE	REVIEWED BY	REVISION DETAILS
01/2024	16/10/2024	V Landman	Initial Issue for Tender

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ACKNOWLEDGEMENT OF SITE-SPECIFIC HEALTH AND SAFETY SPECIFICATION & BASELINE RISK ASSESSMENT BY PRINCIPAL CONTRACTOR

Revision: V01-2023

I (Name of Signatory) , _____ representing (Name of Principal Contractor),
_____ as the appointed Construction Manager in terms of Construction
Regulation 8(1), have satisfied myself with the content of this Construction Occupational Health and Safety Specification & the
Project Baseline risk assessment and shall ensure that the Construction work and those activities carried out by our appointed
sub-contractors, service providers, suppliers and outsourced organisations and all employees on site comply with the provisions
stipulated in this Site Specific Health & Safety Specification.

Signature of Construction Manager

Date

1. DEFINITIONS

For the purpose of the Construction Health and Safety Specification, the abbreviations or definitions given hereunder shall apply:

- 1.1 **“Act”** refers to the Occupational Health & Safety Act No.85 of 1993 (as amended)
- 1.2 **“Agent”** refers to a competent person who acts as a representative for a client.
- 1.3 **“Client”** refers to THE WESTERN CAPE NATURE CONSERVATION BOARD/T/A CAPENATURE and/or any of its Consultants and Sub-Consultants appointed on their behalf.
- 1.4 **“Competent person”** refers to a person who has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training; and is familiar with the Act and with the applicable regulations made under the Act; is familiar with the Act and with the applicable regulations in the Act.
- 1.5 **“Construction work”** refers to any work in connection with-
 - the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure.
 - the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work;
- 1.6 **“Construction Work Permit”** Refers to a document the provincial director will issue to a client who has applied and intends to have construction work carried out. The Provincial Director will within 30 days of receiving the construction work permit application.
 - assign a site-specific number for each construction site
 - the site-specific number contemplated in sub-regulation (3) must be conspicuously displayed at the main entrance to the site for which that number is assigned.
- 1.7 **“Sub-Contractor”** in terms of this document, means an employer / external party who performs construction work as appointed by, and on behalf of the Principal Contractor; this may also include any Service Providers, Sub-Contractors, Outsourced services and/or Suppliers which will be conducting works and/or services in the interest of the Project for the Principal Contractor as the case may be
- 1.8 **“Principal Contractor / PC”** means an employer appointed by the Client who performs construction work and is appointed by the client to be in overall control and management of a part of or the whole of a construction site
- 1.9 **“Construction manager”** refers to a competent person responsible for the management of the physical construction processes and the coordination, administration, and management of resources on a construction site.
- 1.10 **“Construction supervisor”** means a competent person responsible for supervising construction activities on a construction site.
- 1.11 **“Nonconformance Report”** means a written notice issued to workplace responsible person/s that relates to non-Compliance matters warranting management attention within a prescribed time frame
- 1.12 **SSHSS - Site Specific Health & Safety Specification”** refers to a site, activity or project specific document prepared by the client pertaining to all health and safety requirements related to construction work for the project.
- 1.13 **“BLRA”** – Refers to the Project Specific Baseline Risk Assessment
- 1.14 **“OHS”** refers to Occupational Health and Safety.
- 1.15 **“OHS File”** A Portfolio of Evidence consisting of specified elements providing legislative required documentation and operational protocol documentation to mitigate, reduce or control the hazards and risks and to assist with the effective management of work activities on a construction site, presented to the Client for assessment and approval prior to mobilisation to the construction site for work under the Contract. In terms of this SSHSS, the OHS file shall be in accordance with Annexure 1
- 1.16 **“OHS Plan”** refers to a site, activity or project specific documented plan in accordance with the client's health and safety specification; [a document systematic in method and approach, developed by the contractor which is included in the contractor's OHS File that references legislative requirements as well as project requirements pertaining to associated work(s) on a construction site and to ensure that hazards, according to their risk priority, are managed effectively and shall include all mobilisation and set-up activities that will be implemented on the construction site / work place in order to ensure a safe and healthy work environment].

- 1.17 **“Medical certificate of fitness”** means a certificate contemplated in Construction Regulation 7(8). A contractor must ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.
- 1.18 **“Notification of construction work”** means a documented notification by the contractor to the department of labour in writing when any construction works other than work contemplated in regulation 4(1).is to be performed.
- 1.19 **“OHS Act”** refers to the Occupational Health & Safety Act No 85, of 1993.
- 1.20 **“OHS Act”** refers to the Occupational Health & Safety Act No 85, of 1993.
- 1.21 **“PC”** refers to Principal Contractor
- 1.22 **“CHSA”** refers to Client’s appointed Construction Health and Safety Agent
- 1.23 **“CHSO”** refers to Construction Health and Safety Officer appointed by the Principal Contractor
- 1.24 **“SACPCMP”** South African Council for Project and Construction Management Professions
- 1.25 **“Penalty Notice”** A notification issued in terms of contractual clauses for repeated contraventions which acts as a notice to the affected party of financial penalty that will be imposed. It includes the motivation / basis of the penalty including the penalty amount payable.
- 1.26 **“Stop Work Instruction”** means a written notice issued to workplace responsible person/s that relates to serious / critical OHS non-compliance matters warranting immediate seizure of work activities, to prevent potential fatal or catastrophic incidents occurring and issued to workplace for management’s immediate attention. No work may re-commence until the non-compliance/s have been attended to and the Prohibition Notice revoked. A stop work instruction may also be issued on the basis of repeated non-compliances
- 1.27 **“Risk Assessment”** refers to the systematic & methodical assessment methodology utilised to identify hazards and risks to persons / plant and equipment and the corresponding listing of risk controls; the risk assessment must from part of the health and safety file to be applied on a site of works
- 1.28 **“Site”** refers to the Construction Area in terms of this project including Project, buildings, lands and other places, made available by the Client for the purposes of the Contract, on, under, over, in, or through which the construction work is to be executed or carried out.
- 1.29 **“SWP”** refers to a Safe Work Procedures which is a detailed and comprehensive procedure developed to ensure that adequate information and instruction regarding a task is adequately covered and is essential to ensure employee competence with the relevant task.
- 1.30 **“WI”** refers to a Work Instruction which is a work procedure developed specifically to minimise high risk work activity impacts on persons and or plant and equipment, and as referenced in the risk assessment process, that must be adequately mitigated and is essential to ensure employee competence with the relevant task.
- 1.31 **“The Project”** refer to the PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM Project

2. SCOPE OF SSHSS

- This Site-Specific Health & Safety Specification covers the requirements for addressing, mitigating and controlling Occupational Health and Safety related risks, problems, incidents and injuries on the PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM project.
- The scope addresses legal compliance, Client requirements, hazard identification, risk assessment, risk control methodology and the promotion of a health and safety culture amongst those working on the project and general specifications for project OHS Management
- All parties involved with the project are required to comply with the provisions of the OHS Act, all applicable Regulations, Local By-Laws, Disaster Management Act Regulations, Directives set out by the Minister of Employment and Labour for COVID-19 Occupational Health & Safety measures in Workplaces, Client Specifications and this Site-Specific Health & Safety Specification.
- This specification applies to the Principal Contractor, its Service Providers, Sub-Contractors, Outsourced services, Suppliers and Visitors which will be conducting works and/or services in the interest of the Project
- It should be noted that, depending on the nature of the works to be conducted, not all sections in this specification may be applicable to the Contractor

3. CONTRACT & PROJECT DATA

3.1. Scope of Works & Overview

GENERAL DESCRIPTION AND SCOPE

The scope of the Works is shown on the drawings which must be read with the remainder of the Contract Documents.

The Works under the Contract shall include the construction of the following facilities:

The installation of a new gravity outfall sewer pipeline from the existing ablution block located in the Robberg Nature Reserve to the nearest existing Bitou municipal sewer network manhole
(± 800 metre x 160 mm diam uPVC Sewer).

The development will occur partly in the Robberg Nature Reserve, where it will flow from the existing ablution block at the car park, towards the gate of the Reserve. From the gate it will run along the road reserve (DR 1769) outside the Nature Reserve, to the Robberg Estate entrance, which is where the closest Bitou Municipality sewer network manhole is located.

The project would require extensive and detailed co-operation, consultation and communication between all parties. For example Environmental consultant, Cape Nature, Bitou Municipality and the local residents / businesses to ensure all parties are kept informed of the programme and progress of work.

3.2. Project Location

Locality

The site of the Works is shown on the Locality Plan – Project Detail No 1. Robberg is situated approximately 90 km east of George and approximately 200 km west of Port Elizabeth.

Ownership

The site for the new sewer gravity pipeline is on Cape Nature property as well as Bitou Municipal Road reserves.

Access

Access to the site is from the existing municipal roads.

Where the pipeline is located more than 2m away from the existing road, it needs to be constructed by hand and no vehicular access across the vegetation will be permitted.

A maximum construction corridor of 1m is to be permitted. Any minor adjustments to the route must be incorporated within this corridor.

Concrete batching and mixing must be done in the construction site camp (existing parking area) only and carted to the desired area along the pipeline.

3.3. Project Professional Team

Organisation	Designation
THE WESTERN CAPE NATURE CONSERVATION BOARD T/A CAPENATURE.	Client
UHAMBISO CONSULT (PTY) LTD	Client's Agent
FSG COMPLIANCE SPECIALISTS	Construction Health & Safety Agent
Tender Stage	Principal Contractor

4. APPLICATION FOR CONSTRUCTION WORK PERMIT (In terms of Construction Regulation 3)

Application for construction work permit

Construction Regulation, 2014 Section 3. (1) A client who intends to have construction work carried out, must at least 30 days before that work is to be carried out apply to the provincial director in writing for a construction work permit to perform construction work if the intended construction work will –

- (1) exceed 365 days
- (2) will involve more than 3600 person days of construction work;
- (3) the tender value limit is grade 7, 8 or 9 of the Construction Industry Development Board (CIDB) grading.

5. NOTIFICATION OF CONSTRUCTION WORK (In terms of Construction Regulation 4)

A contractor who intends to carry out any construction work other than work contemplated in regulation 3(1), must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to Annexure 2 if the intended construction work will-

- a) include excavation work;
- b) include working at a height where there is risk of falling;
- c) include the demolition of a structure; or
- d) include the use of explosives to perform construction work

Based on the scope of work for the project, the Principal Contractor will ensure that the notification of construction work as referred to above is fully completed and signed and is submitted to the Department of Employment & Labour at least 7 days prior to commencement of the works. A copy of the proof of submission and the acknowledgement letter from Department of Employment and Labour shall be filed in the PC's OHS File for the duration of the project. Should any changes be made to any of the details in the Notification of Construction work, including project completion dates, it will be the PC's responsibility to Notify Department of Employment and Labour of such changes in advance.

6. INTRODUCTION TO THE SITE-SPECIFIC HEALTH & SAFETY SPECIFICATION

- 5.1. The CAPENATURE and its appointed agents are committed to ensuring the highest standards of health and safety compliance on its construction projects and aim to achieve zero harm to persons, public, property and relevant stakeholders.
- 5.2. This SSHSS is developed in terms of the Construction Regulations, 2014 sub-regulation 5(1)(b) of the Occupational Health & Safety Act of 1993 and it applies to all contractors that will be executing works and related activities during construction and close out stages of the Project
- 5.3. This SSHSS formulates the minimum requirements which must be met by Contractors and documented in the contractors' health and safety plan and OHS file. The specification is not a limited or exhaustive list of legal and corporate compliance requirements and also incorporates project specific provisions and further provisions as may be prescribed by the Client
- 5.4. Each sub-contractor, service provider, supplier or outsourced organisation appointed by a contractor, must submit its OHS File for approval to the Principal Contractor
- 5.5. The SSHSS does not replace the Construction Regulations or any other legislative requirement, but is a specification as required in terms of the Inherent risks, Project BLRA, Legislative and other statutory requirements (i.e. Local by-laws, mandatory National / International Standards or Codes of Practice)
- 5.6. All Contractors are, at all times required to and will remain responsible to fully address all requirements and standards of the Occupational Health and Safety Act, Regulations and the Construction Regulations in the Health and Safety Plan and the implementation thereof. The controls of the approved OHS plans must be strictly and comprehensively implemented and maintained by all contractors.
- 5.7. The Client has appointed FSG Compliance Specialists to Act on their behalf as the Construction Health and Safety Agent for the project who shall (inter-alia) be responsible for; (Refer: CR 5.5 / CR 5.6 / CR 5.7):
 - Ensuring that the contents of the Contractors' OHS Plan and OHS File cover the construction project OHS risk management requirements adequately.
 - Confirming that the Contractors' OHS Plan and OHS File (portfolio of evidence) meets legal, client specification and Scope of Works requirements.
 - The auditing of all Contractors' site operations and the implementation and compliance to their Health and Safety Plan on-site.
 - Maintaining the document controls associated with the Site-Specific Health & Safety Specification.

7. LIMITATION OF LIABILITY

- 5.1 CAPENATURE and its appointed agents shall not be responsible for any acts or omissions of any Contractor or their mandatories which may directly or indirectly result from the application of the Construction Health & Safety Specification or any project specific version thereof.
- 5.2 Contractors must ensure that work, equipment, machinery, plant and work practices are, at all times, compliant to the legal requirements as these apply and to the relevant requirements as set out in this specification
- 5.3 Contractors must ensure that where the scope of work is changed or where, for whatever reason, additional or new risks are identified the OHS plan is adapted accordingly. Any change to the OHS plan must be approved by the appointed CHSA. No such work, not included in the approved OHS plan, may be commenced unless discussed and finally approved by the OHS agent
- 5.4 The OHS agent shall ensure that the implementation of the Construction Regulations' and Requirements as in terms of this specifications are fulfilled.
- 5.5 Any other potential responsibility on the part of the CAPENATURE shall be dealt with in a Mandatory Agreement, as defined in Section 37(2) of the OHS Act. The Mandatory Agreement must be signed by both parties and included in the OHS File. The Mandatory Agreement is set out in Annexure 2 of this Specification

8. IMPLEMENTATION OF THIS SPECIFICATION

- This Site-Specific Health & Safety Specification forms an integral part of the Construction Work, and Contractors are required to make it an integral part of their contracts with subcontractors, suppliers, service providers, outsourced contractors and visitors
- The Contractors shall allow in their tenders for the cost of complying with the requirements of the Site-Specific Health & Safety Specification. The OHS File shall outline a pro-forma budget and related costs example for occupational health and safety, applicable to each construction project.
- The Client and its appointed Agents reserves the right to perform any revision, deduction or addition to this specification as the need may arise at any time for the duration of the project.

9. COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES

- Contractors shall submit proof of registration as an employer, and proof of Good Standing with the COIDA Commissioner in the OHS File and prior to starting the work.
- A copy of the Letter of Good Standing with the COIDA Commissioner must be included in the OHS File.

10. COMPETENCY

The OHS File shall include signed letters of appointment of competent persons. The competency of each person shall be documented in an attachment to the letter of appointment. Such attachment shall contain verifiable evidence of the competent persons':

- Knowledge; and
- Training; and
- Experience; and

Qualifications specific to the work or task for which the appointee is competent.

11. CONSTRUCTION SAFETY OFFICER

Given the scope and duration of the project, the principal contractor is required to formally appoint a full-time Construction Health and Safety Officer in writing. This appointment is based on the level of potential risk and the presence of hazards on the site. The appointed officer will be responsible for managing and overseeing all health and safety matters across the entire project. The Safety Officer must hold a valid SACPCMP Registration Certificate.

12. CONTRACTOR'S OHS FILE

- The Contractor shall provide and maintain an OHS File in the format prescribed in **Annexure 1** in terms of this SSHSS, the OHS file shall furthermore contain all relevant documents as prescribed in the OHS Act and Regulations and all records referred to in the OHS Plan.
- The OHS file, in its original start-up format, shall be presented to the appointed OHS agent and shall include the OHS plan for final approval prior to commencement of activities.
- The OHS File shall include an index and contents as per **Annexure 1**
- The OHS Plan shall address the matters as listed on Annexure 2 within the format and sequence as specified
- Where items as listed on Annexure 1 are not applicable to the Contractor, the section shall clearly state "not applicable"
- No Contractor may remove / change or otherwise alter the layout, numbering of sequencing as specified on Annexures 1
- The appointed agent reserves the right to reject any health and safety file and/or plan that does not comply to legal and statutory requirements, this specification or that is not relevant to the actual works to be performed (i.e. Generic health & safety file).
- The Contractor shall submit a completed OHS File to the appointed agent prior to the commencement of any works including the commencement of site camp establishment, for approval. The agent shall provide feedback on the approval / rejection of the OHS File in writing within 7 working days from date of submission. Should the file be rejected for any reason, the agent will provide the Contractor with written feedback detailing the reason/s for rejection

- The Client reserves the right to request additional approval of the OHS File, if required, following the approval of the OHS File by the OHS Agent
- The Contractor shall ensure that all its sub-contractors and service providers including any other party acting on its behalf submit a Site specific OHS file in accordance with this specification and Annexure 1 of this specification.
- The OHS File shall be kept on the construction site and available for inspection by the Client, its Agent, or the Department of Employment and Labour
- The OHS File becomes the property of the Client at completion of the project.

13. CONTRACTOR'S HEALTH AND SAFETY PLAN

- The Contractor's OHS Plan must be a site, activity or project specific documented plan in accordance with this health and safety specification.
- The Contractor shall submit the OHS Plan to the appointed OHS Agent in accordance with legal requirements sub-regulation 7 (1) (a) and this Construction Health & Safety Specification, prior to commencement of the Construction Work. The Contractor shall keep in mind approval timeframes including possible request for changes that may be made by the OHS agent where the OHS Plan and File do not comply with the requirements set out herein.
- Approval of OHS files by the appointed agent may take up to 7 working days from the date of handover.
- The Contractor's OHS Plan shall be evaluated and where found compliant to these specifications, be approved by the Client's appointed OHS Agent (where applicable).
- The OHS Plan shall contain an approval front page. The Approval page shall make provision for approval by the CR 8(1), OHS 16.2, CR 8(5) appointees including the Construction Health & Safety Agent.

14. HAZARD IDENTIFICATION & RISK ASSESSMENT

- a. Risk assessments for risk-bearing site specific activities in terms of the scope of work will be included in the health and safety plan. The same will apply to activities performed by sub-contractors. Risk control measures shall be documented
- b. Risk assessments shall be conducted by means of an acceptable and documented methodology, prior to the commencement of such works and in accordance with the Construction regulations 2014. Controls must, as a minimum be identified, selected and documented as, and selected in the order of:
 - Risk elimination Controls
 - Risk Substitution Controls
 - Engineering Controls
 - Administrative Controls
 - Personal Protective equipment – related controls
- c. Other Controls to be considered must include:
 - Competency and responsibility appointments and assignment
 - Method Statements / Safe work instructions
 - Training / Competency
 - Occupational hygiene measurements
 - Workplace organisation including demarcation, signage, colour coding, routing, housekeeping, storage, stacking, access / egress control
 - Emergency measures
 - Medical testing, surveillance and job placement
- d. All risk assessments must include a review and a monitoring plan and shall be approved, in writing by the Construction manager appointed in terms of CR 8(1) and the appointed Risk Assessor

- e. Hazards, risks & risk control measures shall be communicated to relevant employees and proof of communication shall be maintained
- f. All reviews / revisions of risk assessments and the details thereof must be documented, and proof thereof must be maintained as records
- g. In addition to the above, Issue-based risk assessment, risk monitoring and risk review shall be done at the hand of daily safe task instructions / daily mini-risk assessment ('DSTI') which require:
 - A daily documented listing of hazardous events.
 - A daily documented listing of controls.
 - Proof of communication of the above to all employees
 - Risk review ensuring that all risks on site are adequately managed
- h. The Principal Contractor shall include a template DSTI / Mini-Risk Assessment document in the H&S plan
- i. Proof of competence of all risk assessors shall be attached to the letter of appointment. The risk assessor shall be a full-time employee of the PC who is conversant with the scope of work and the risks involved
- j. The PC is to refer to the Project Specific Baseline Risk assessment as part of its Risk assessment processes for the project as well as adhere to and include all mitigation and risk control measures stated therein.

15. HEALTH & SAFETY INDUCTION

The Contractor shall develop a job- or project-specific induction training programme, based on risk assessments and this specification, to ensure that all employees on site are conversant with:

- The risks on the project
- The controls documented in the OHS Plan
- The role they are expected to play in ensuring health and safety on the construction site.
- Relevant Construction Health & Safety Specifications

No contractor may allow or permit any employee or person to enter any site unless that employee or person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.

The contractor must ensure that all visitors to the Construction site are escorted by a person holding a valid induction training

The contractor must at all times keep on his or her construction site records of the health and safety induction training and such records must be made available on request to an inspector, the client or the client's agent

16. HEALTH & SAFETY TRAINING AND ONGOING RISK COMPETENCY

The Contractor shall ensure that daily pre-task health and safety instructions are given to all employees.

The methods for ensuring that daily pre-task instructions or start-up talks or toolbox talks occur, including the method of documenting the contents and attendance recording, shall be described in the OHS Plan.

17. INSPECTION, MONITORING & REPORTING

- The Contractor shall carry out daily safety inspections on the site (or more frequent, where so required), and shall take steps to rectify any unsafe condition and / or act's or omissions of which he is aware.
- The OHS File shall contain an inspection schedule addressing all relevant OHS Inspections (i.e. Daily Safety Officer Inspection, Planned Task Observations, SHE Rep inspections, etc.)
- The relevant inspection templates and the frequency of inspections shall be included in the OHS File.
- The OHS File shall contain a list and template of all statutory inspection registers which shall be kept on site.
- The PC shall submit to the CHSA, before or on the last working day of the month, a monthly health and safety report which shall include, as a minimum the following:
 - a) Total hours worked (per month & progressive)
 - b) Total Fatalities (per month & progressive)
 - c) Total Lost-time Injuries (per month & progressive)
 - d) Total medical treatment cases (per month & progressive)
 - e) Total First aid cases (per month & progressive)
 - f) Total reportable cases (per month & progressive)
 - g) Internal Non-conformance register (incl. date issued, short description, action taken & close out date)
 - h) External Non-conformance register (incl. date issued, short description, action taken & close out date)
 - i) Incident & accident register for reporting month (incl. date, short description, classification, investigation due date, causes, actions taken)
 - j) Approved risk assessment register
 - k) Updated project programme

18. INCIDENT MANAGEMENT

All near misses, incidents and accidents must be recorded, investigated and managed in accordance with the statutory provisions.

Each OHS incident and accident must be recorded in a register kept in the OHS file; a template of the register shall be included in the OHS File.

All incidents involving injury to any employee, member of the public or other employees and stakeholders shall be reported to the Client's appointed OHS agent immediately, or where this is not possible, within the same shift of occurrence. The preliminary report (**prior to formal investigation**) shall be documented detailing the following information:

- Description of event (incl. date / time)
- Location of event
- Persons / equipment / property / material / agents / forces, etc. involved including any members of public (as could be determined from immediate assessment)
- Preliminary assessment of injury / damages / illness / loss / harm
- Preliminary evidence (i.e. photographs of the scene, equipment, material, etc. or any other evidence such as parts, documentation, etc.)

Any incident involving harm or loss to the Client's or Public property shall be reported the Client's appointed OHS agent immediately, or where this is not possible, within the same shift of occurrence.

Section 24 of the OHS Act and in accordance with regulations 8 and 9 of the General Administrative Regulations, 2013, incidents shall be reported in the prescribed manner to the Department of Labour, to the COIDA Compensation Commissioner in the prescribed manner [Annexure 1 & WCL2] and to the appointed OHS Agent.

A record of all incidents and investigations shall be kept in the OHS File

A record / register [matrix] shall be kept to indicate the categories of injuries [first aid / IOD non-disabling, IOD Disabling and dangerous occurrences] sustained by employees, visitors and sub-contractors to date.

All incidents shall be investigated within 7 days of occurrence. The contractor shall submit a documented suitable incident investigation report to the Client's agents within 7 days of Occurrence.

Each contractor shall ensure that a proper incident reporting and investigation management procedure is documented and a site emergency procedure is formulated, documented, implemented (drills) and is available on site, outlined in detail, and included in the OHS File. The emergency arrangements shall be available on site and shall include:

- A comprehensive emergency and evacuation plan.
- A site-specific emergency evacuation top down plan/flow chart.
- An updated list of emergency telephone numbers including those of fire, police, ambulance,
- medical & hospitals.

Emergency procedure(s) shall include, but not be limited to, fire, spills, accidents to employees and injury resulting from the use of hazardous substances, damaging of existing services, collapse of temporary structures, etc.

In the event of an emergency arising, the Contractor shall advise the appointed Agent in writing of the incident, together with a record of any action taken, within 24 hours of the emergency occurring

19. AUDITS & INSPECTIONS

- a. The OHS Agent shall perform monthly scheduled Compliance audits in terms of the following audit criteria (not limited to):
 - OHS Act 85 of 1993 and applicable regulations
 - Construction Regulations, 2014
 - This Site-Specific Health & Safety Specification
 - The Principal Contractor's Health & Plan
 - Disaster Management Act
 - Local By-Laws
 - Disaster Management Act Regulations
 - Directives set out by the Minister of Employment and Labour for COVID-19 Occupational Health & Safety measures in Workplaces
- b. Records of audits shall be kept together with a record of any non-conformance report/s, investigation and corrective & preventative actions required by the Contractor.
- c. The Construction Health and Agent shall furthermore conduct random site inspections in terms of the criteria set out in section a above
- d. The Contractor's OHS Plan shall document the corrective and preventative action procedure applicable to the project.
- e. The OHS Agent shall stop all or any work activity which does not conform to the OHS Plan, which is contradictory to statutory requirements or which poses a threat to the health and safety of persons.
- f. The Contractor shall conduct regular health & safety audits on its own sub-contractors (at least once a month) to ensure compliance with the OHS Act, its Regulations and OHS Plans and this SSHSS.
- g. The Contractor shall conduct documented monthly internal / 1st Party audits prior to the scheduled audit conducted by the OHS Agent in terms of the audit criteria set out in section a above.
- h. The OHS File of the Contractor shall include an internal and sub-contractor auditing procedure, template and schedule.
- i. The Contractor shall stop all or any work activity which does not conform to the OHS Plan, which is contradictory to statutory requirements or which poses a threat to the health and safety of persons.
- j. Compliance audits shall be documented, and any findings / non-compliances / nonconformities shall be documented and closed out in accordance with Section 31 of this SSHSS
- k. The PC shall participate in all audits and inspections by availing a Senior person or CHSO to accompany the CHSA during audits and inspections
- l. Notification of audits shall be given in writing by the CHSA to the PC representative within a reasonable notification period at a minimum of 2 days' notice, however, the CHSA reserves the right to conduct compliance inspections at random but at least once per week.

20. PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING

- The Contractor shall ensure that every employee is issued with, and wears SABS-approved PPE, consisting of all PPE identified in the PPE needs analysis and indicated in the risk assessment.
- The Contractor shall document the procedure & matrix applicable for the issue, use and replacement criteria of PPE in the OHS File. The matrix / procedure shall cover all activities as the Scope of Works
- All the contractors' employees shall wear; full length overalls and shall wear clearly visible identification with respect to their employer.
- Contaminated PPE shall be disposed of in the prescribed manner as referenced in the OHS Act – Hazardous Chemical Substances Regulations and to an approved waste disposal site.
- Furthermore, the Contractor shall ensure, as standard protective apparel and gear, that at the minimum (*but not limited to*), all employees on site shall comply with the following PPE requirements.
- - Full length overalls
 - Reflective vests / clothing (i.e. reflective strips)
 - Gloves
 - Safety shoes – steel capped
 - Gum Boots – water environment
 - Raincoats – inclement weather

The Contractor shall also ensure that where there is a risk of falling objects (drop zone), all persons to wear hard hats.

The Client reserves the right to amend PPE requirements at any time during the course of the project should any changes occur that may present further risk to an employee's health and safety

PPE requirements shall be made visible on site by the PC by means of visible signage and shall be communicated during induction programs

Compulsory PPE shall apply to all employees, Sub-contractors, visitors, suppliers and service providers as well as Client agents and representatives. No employee or sub-contractor employee will be allowed on site in civilian / casual clothing. The PC is responsible to ensure that PPE requirements are communicated to all employees, sub-contractors, suppliers / service providers and visitors.

The need for specialized PPE & clothing such as Safety harnesses, Gloves, Respirators and others will be determined through the Contractors Risk Management processes or as instructed by the Client's appointed agent or official.

21. OCCUPATIONAL HEALTH & SAFETY SIGNAGE

- The Contractor shall erect and maintain quality mandatory, warning, general information, prohibiting and firefighting safety signage and the Contractor shall ensure that such signage is available or visible in workplaces where work is performed and in accordance with legislative requirements.
- The signage shall reflect through text & symbolical means, all the risks identified in the OHS plan that necessitate the use of PPE as a control factor.
- Where falling objects may occur, relevant barricading and warning signs must be erected.
- Further signage, as it may apply, shall include (but not be limited to):
 - a) The work permit number displayed at the site entrance (if applicable)
 - b) Restricted and controlled entrance signage, including a sign indicating that all visitors must report to the site office and must be accompanied by the principal contractor when accessing the site.
 - c) The name and telephone number of the responsible person(s).
 - d) Emergency telephone number(s).
 - e) Perimeter signage in respect of public health risks or risks that may affect neighbouring contractors (blasting, noise and dust), where applicable.
 - f) PPE to be worn at the particular site.

- g) Warning signs for fall risks (i.e. excavations)
- h) Isolation and lock-out signage
- i) Signage applicable for road works (as in terms of SARTSM)
- j) Warning signs for radiation and its storage areas including transportation
- k) h. Where falling objects may occur, relevant warning signs must be erected.
 - i. Excavations, heights structures, temporary structures and all risk areas must be indicated as per the specific methods defined in the H&S plan.
 - ii. No access restrictions, which shall apply to fall risk areas, confined space areas,

22. SUB-CONTRACTORS (including suppliers, service providers, outsourced contractors)

- a. The PC shall ensure that all its Sub-Contractors are issued with a copy of this SSHSS and that all Sub-Contractors comply with the provisions stipulated herein
- b. No Sub-Contractor shall be allowed to work on site without the following:
 - Updated & readily available Health & Safety Management Plan and File approved in writing by the Principal Contractor and in accordance with this SSHSS.
 - Valid Letter of Good Standing in terms of the COID Act
 - Documented and fully signed Sect 37(2) Agreement between PC and its Sub-Contractor
 - Valid Certificates of Fitness for Sub-Contractor employees
 - Sub-Contractor appointed letter in terms of CR 7
 - Proof of Competency of Sub-Contractor employees
 - Proof of induction for Sub-Contractor employees
 - Health and Safety file & plan that has been compiled in accordance with this specification and Annexure 1.
- c. The PC shall keep a Sub-Contractor list with details as stipulated section 23 of this SSHSS.
- d. The PC shall inform the CHSA of all approved Sub-Contractor Health & Safety Files & Plans
- e. The PC shall conduct daily document Health & Safety Inspections for all Sub-Contractors on site and shall liaise with the Sub-Contractors regarding any findings or non-compliances noted and the rectification thereof
- f. The PC shall report any incident or injury where a Sub-Contractor or its employee was involved as per the reporting provisions stipulated under sections 23 of this SSHSS.
- g. The PC shall conduct formal monthly documented compliance audits on all of its sub-contractors and shall liaise with the sub – contractor regarding any findings or non-compliance noted during the course of the audit and the close out thereof
- h. For suppliers & service providers, the PC shall ensure that where any supplier or service provider is required to enter the construction site, that such a supplier or service provider is inducted as appropriate and in compliance with the provisions of the OHS Act, Other relevant Acts and this SSHSS. All suppliers and service providers are to ensure that Health and Safety files are provided for approval by the PC in terms of Annexure 1. Where items as per Annexure 1 may not be relevant to the supplier / service provider, this may be stipulated in writing provided that the OHS Plan and OHS File follow the specified layout as per this SSHSS.

23. NIGHT WORK AND AFTER-HOURS WORK

Activities that will involve activities after hours, will take place in accordance with approved timeframes and a night – work permit as issued by the Client or its appointed agent.

Normal working hours will be between 7am and 5pm daily.

The contractor shall ensure full site clearance and housekeeping activities are fully completed prior to leaving site at the end of a shift. Site clearance shall include the safeguarding and monitoring of the following:

- Housekeeping
- Waste removal
- Visible Barricading and demarcations
- Warning signs
- Backfilling of excavations (if any)
- Removal of all tools, plant, equipment, PPE from the construction site
- Safeguarding of flammable substance storage and other storage areas

The contractor shall ensure that the above applies and are executed by any of its contractors, suppliers and/or service providers

Risk assessment and method statements in the OHS File shall include after hour work and the safe management thereof where this may be relevant.

24. FACILITIES MANAGEMENT

- The Principal Contractor shall document the construction site's methods to ensure the statutory application of employee's rights in terms of employee facilities as defined in the OHS Act, Facilities Regulations, 2004, and the Construction Regulation 2014.

The following risk control measures shall apply to facilities:

- Hygiene inspection register for eating areas, change rooms and ablutions
- Suitable ablution facilities to be provided (male / female separated) one for every 15 x employees. Portable toilets to be serviced regularly with proof to be kept on file. All ablutions to be equipped as required by the regulations (i.e. soap, toilet paper, etc.)
- Suitable change rooms

25. HEALTH & SAFETY COMMITTEES

- The Contractor and all contractors must ensure that for any workplace where more than 20 employees work, the minimum legislative prescribed number of Health and Safety Representatives in a ratio of 1:50 employees be nominated, elected, designated in writing and trained to carry out their prescribed functions.
- In areas where twenty (20) or less employees are engaged in an activity, at least one Health and Safety Representative shall be designated in writing and operate as above.
- The Contractor shall ensure that Health and Safety Committee meetings are held monthly and are chaired by the Construction Supervisor. Meeting agendas and minutes shall be filed in the OHS file.
- Where Health and Safety Committees are not established, the PC shall ensure that Monthly Health and Safety Meetings are held and includes the following parties:
 - Construction Manager
 - Supervisors / Foreman
 - Safety Officer
 - SHE Reps
- The PC shall ensure that its Contractors attend monthly health and safety meetings when on site.

26. HOUSEKEEPING, STACKING & STORAGE

The contractor shall appoint a person responsible for general housekeeping and stacking and storage of materials and equipment on the entire site. Where the baseline risk assessment identifies the risk of falling tools, items, objects and materials, the area shall be barricaded or demarcated, appropriate warning signage installed and such hazards included in a method statement & issue-based risk assessment prior to or when work activities are performed within such zones.

Furthermore, the same stipulation is required for site lay-down areas where equipment, plant, materials, substances and other items are stored / staged for the site project works.

Stacking and storage areas shall be clearly defined and demarcated on the site with the appropriate symbolic signs.

High standards of housekeeping shall be enforced at all times.

27. WASTE MANAGEMENT

The contractor shall appoint a person responsible for site-wide control & removal of scrap, waste and debris; No waste, including scrap, debris, hazardous waste, combustible materials and containers shall accumulate on the site.

Hazardous waste (*liquid / Solids*) shall be disposed of in the prescribed manner and at hazardous waste disposal sites.

The following risk control measures shall apply to waste management:

- Clearly marked and demarcated waste disposal areas to be provided within site camp
- Waste to be separated at all times (i.e. Hazardous / general waste) and all bins to be clearly labelled
- Steel drums may not be used as hazardous waste bins
- Waste bins to be placed at all eating areas
- All waste bins to be suitably covered at all times

28. OCCUPATIONAL HEALTH

The OHS File shall include medical certificates of fitness for all employees. (refer: CR 7 (8)).

Medical certificates must be issued by an occupational health practitioner (refer: CR 2016, Reg.7 (1) (g) after performing the medical tests.

Medical certificates must be on the prescribed Annexure.3 form and conform to the applicable statutory requirements. i.e.

- Health questionnaire
- Audiogram
- Lung-function test
- Vision test
- Blood Pressure measurement (hypertension)
- HGT – blood glucose measurement
- Any other examinations based on Occupational Exposure as prescribed by the Occupational Health Practitioner

Medical certificates are valid for a period as determined by the Contractor's Occupational health practitioner.

The OHS File shall also include procedures that must be followed to minimise or prevent Noise Induced Hearing Loss.

Where noise & dust is identified as a hazard the requirements of the NIHL regulations must be complied with.

29. FIRST AID MANAGEMENT

Contractors & sub-contractors shall ensure that every site where they are engaged in work activities, has adequately trained first aiders at all times. A ratio of 1:50 workers will apply for the appointment of first aiders.

Where high risk substances, toxic, corrosive or similar hazardous substances are used, handled, or processed, the Contractor shall ensure that the First Aider is trained in the first aid procedures to treat injuries that may result from such activities.

First aiders shall be identified and shall have immediate access to a comprehensively stocked first aid box.

Such first aid box/s shall be stocked to include all first aid equipment as per the minimum requirements listed under General Safety Regulation 3 & 4, and any additional items identified in the risk assessment.

All the above first aid controls, including the letter of appointment, proof of competency, signage, injury-record and stock-control registers shall be documented in the OHS File.

Where the scope of works include work involving Hazardous Chemical Substances, the Contractor shall ensure that first aiders are conversant with emergency treatment procedures for the Chemical as per the Material Safety Data Sheet associated.

30. NON-COMPLIANCES & LEGISLATIVE CONTRAVENTIONS

Compliance to OHS legislation, this specification and relevant Client requirements shall be monitored via regular inspections & audits conducted by the OHS Agent

Should any breaches or non-compliances of OHS legislation, Operational protocols and this specification occur, the OHS Agent must:

- Depending on the severity of the breach / noncompliance, either stop the work activity or complete works and / or issue to the responsible person of that work place a Nonconformance report or a stop work instruction.
- When a stop work instruction is issued warranting management immediate attention, it shall be for more serious / critical non-compliances that may result in fatal or catastrophic incidents occurring and all work activities must cease with immediate effect and shall not commence until the non-compliances have been rectified and the stop work instruction closed out
- The OHS Agent will inform project management teams accordingly where such Notices have been issued.
- The following penalty table will be applicable for OHS Contraventions and will be applicable to all Contractors on the project:

Description	Amount (per non-conformance finding)
Month 1 First issue of non-conformance	R0
Month 2 recurring non-conformance	(R2000.00) x 1 = R2000.00
Month 3 recurring non-conformance	(R2000.00) x 2 = R4000.00
Month 4 recurring non-conformance	(R2000.00) x 3 = R6000.00
Serious / reckless endangerment of public, employees, surrounding areas, other contractors, stakeholders, etc.	R20 000 & suspension of works

Note: Recurring non-conformances/non-compliances do not have to take place consecutively for the penalty to be charged and that each non-conformance/non-compliance will be charged individually. Recurring non-conformance/non-compliance findings will be charged to the contractor as per the following formula: $f(x) = R2000.00 \times (x)$ where (x) increases by (x)+1 each month, with (x) starting at one (1) as per the example above). The penalty will be charged to the contractors' monthly payment certificate."

Principal Contractors will be held responsible for the penalties issued as a result of the Acts or Omissions of its appointed Contractors.

The Client and its appointed agents reserves the right to impose a suspension of the works, or part thereof, at any time where a contravention is repeated or where an immediate danger is posed to persons including the public, the Client's property and Stakeholders, as a result of the PC's (or its appointed Contractors) acts or omissions. Such a suspension may be accompanied with a fine in terms of the table above. In such cases the PC will not be entitled to receive any remuneration or recovery of costs caused by delays.

31. FIRE RISKS AND FIRE FIGHTING EQUIPMENT

No open fires are allowed on site.

No smoking is allowed on site, except in designated smoke areas established by the Principal Contractor in terms of the requirements set out in the Tobacco Products Act.

All combustible and all flammable products must be stored in an adequate storage facility; this process shall be documented in a SWP or WI in the OHS File.

The Contractor shall provide suitable fire extinguishers, when working with or working with equipment using any flammable substances, which shall be serviced regularly, in accordance with the manufacturer's recommendations.

The following are minimum requirements for competency in the use of a fire extinguishers:

- At least two employees on each construction site.
- All employees engaged in hot work.
- All persons involved in re-fuelling.
- All persons handling flammable substances.

The fire extinguisher inspection register, the inspection methodology and the letter of appointment of the competent inspector shall be included in the OHS File.

32. RECORD KEEPING AND DOCUMENT CONTROL

- a. The PC will ensure to keep and maintain safety & health records to demonstrate compliance with the OHS System, Client specifications and the OHS Act.
- b. The Health and Safety file/s shall be maintained and arranged in accordance with Annexure 1 of this SSHSS following approval of the HSE file.
- c. At completion of the project, a hard copy and electronic copy of H&S documentation will be handed over to the client's agent for archiving.
- d. Health & Safety files shall remain neat, organised and traceable at all times (by means of clear labelling) and shall be available on site for inspection by Dept. of Employment and Labour, Client's Agent, Client or his / representative and the CHSA
- e. Obsolete documentation must be removed from Health and Safety files and must be safety retained in a separate records / archive file/s on site. These records must be included in hand-over documentation at completion of the project
- f. All applicable legal, statutory and other requirements applicable to the project including this SSHSS shall be made readily available on site
- g. In terms of the nature of the works, and in addition to the documentation requirements stipulated on Annexure 1 of this SSHSS the PC shall develop, implement and maintain (as a minimum) the following documentation which shall be included in the relevant sections stipulated on Annexure 1 of this SSHSS:

Safe Work Procedures / Procedures as it may apply (not limited to):

- Excavation work (hand and mechanical)
- Lifting / rigging activities
- Construction Plant and Vehicles
- Use of Compactors or other small plant as it may apply
- Use of portable electrical equipment
- Safeguarding of existing services

- Housekeeping
- Stacking & Storage
- Hazardous Chemical Substance Management
- Loading & Offloading Plant, Equipment and material
- Site Camp establishment
- Temporary works activities (should this become relevant)
- Safe work procedures for Ladder work
- Electrical installation work
- Isolation & Lock out
- Any other Safe work procedures prescribed by the Client or its appointed agent

Management Plans (not limited to)

- Health & Safety Management Plan
 - COVID-19 Management Plan
 - Waste Management Plan
 - Hazardous Chemical Substances Management Plan
 - Traffic Management Plan
 - Fall Protection plan
 - Public Safety Management Plan
- h. All of the above stipulated Safe work instructions and management plans including others developed by the PC shall be signed off and approved by the Construction Manager, Construction Health & Safety Officer and relevant Construction Supervisor
- i. Records of revision and changes to the above shall be kept

33. ON-SITE COMMUNICATION AND AWARENESS

- a. Health & Safety information shall be clear and comprehensive, all parties will ensure that health and safety information is regularly conveyed to the relevant parties involved in the project.
- b. In the event of any Incident or Injury that may occur on site, the PC will notify the Client's agent as well as the CHSA immediately and within the same day.
- c. Notification of incidents other than injury will include (whether injuries are sustained or not): vehicle accidents, public unrest, property damage / loss, structural collapse, robbery, chemical release, near-hit / near miss, assault, strikes / riots, Occupational illness, fires, overexposure to substances any other unwanted event or accident
- d. The PC shall notify the Client's agent and the CHSA immediately upon any work stoppages due to impending danger / risk to employees and / or public
- e. The PC shall notify the CHSA in writing of all Sub-Contractor Health & Safety Plans & Files that have been approved
- f. The PC shall notify the CHSA, in advance and in writing of any changes to staff and their roles as well as legal assignment (including legal appointments)
- g. The PC shall notify the CHSA in writing on the results, outcomes and actions related to reported injuries and incidents following investigation thereof

- h. The PC shall notify the CHSA of any reportable incidents in terms of Section 24 of the OHS Act including those that may result in a reportable case in terms of Section 24 of the OHS Act
- i. The PC shall manage and as far as reasonably practicable, remove any barriers and obstacles to communication processes (i.e. language, social factors, gender, discrimination, literacy, etc.). Where required, the PC shall assign interpreters to facilitate language barriers during communication sessions.
- j. Where the PC is unable to close out a non-conformity for any reason issued in terms of section 31 of this SSHSS within the given timeframe, the PC shall notify the CHSA in advance and in writing stating the reason
- k. Other communication & awareness measures shall include:
- Daily Safety awareness topics (relevant to the works and conducted by a suitable person, communication barriers to be considered, including COVID-19 awareness topics)
 - HIV / AIDS awareness topics (see HIV / AIDS specification)
 - Awareness topics on transmittable diseases (i.e. COVID-19)
 - Communication of incident / accident outcomes
 - Monthly minutes of SHE Committee / Safety meetings in terms of the OHS Act
 - Notice boards
 - Other communication provisions in terms of Section 13 of the OHS Act
- k. Documented proof of attendance shall be kept in the Health and Safety file for the above where relevant

34. EQUIPMENT & PLANT INSPECTION REGISTERS

- a. All tools, equipment, plant and other facilities shall be inspected on a regular basis as required and record of inspections shall be retained and made available on site
- b. Inspections shall be carried out by a competent person and where required in the OHS Act, the inspector shall be appointed in writing
- c. Where deviations are noted during inspections, these deviations shall be logged in writing and appropriate action shall be taken to rectify any faults or deviations which may include removal of the equipment, tool, plant or facility from site
- d. Required inspection registers shall include, but are not limited to:
- Site Establishment Checklist
 - Scaffold Inspection Checklist (where required)
 - Temporary works inspection register (where required or upon installation of shoring, where relevant for tunnelling)
 - Earth Leakage Control Inspection Checklist
 - Electrical Hazards Checklist
 - Electrical Installation Checklist
 - Explosive Powered Tool Record (where required)
 - Fire Fighting Equipment Register
 - First Aid Box & Equipment Checklist including first aid register
 - Equipment checklists for other emergency equipment (i.e. stretchers, SCBA's, etc.) as these may apply
 - Flammable & Combustible Material Checklist
 - Hand Tools & Equipment Checklist
 - Hazardous Substances Checklist
 - Stacking & Storage Checklist
 - Housekeeping Checklist

- Ladders Inspection Checklist
- Lifting gear and tackle Register
- Personal Protection Checklist
- PPE Issue Record
- PPE Requirement List
- Portable Electrical Lights, Tools & Appliances Register
- Portable electrical equipment checklist
- Checklist for compressors
- Generator checklist
- Mobile Plant Checklist
- Small Plant
- Checklists for Construction vehicles including trailers and bowsers
- Pressure Vessel Register
- Small plant checklists (i.e. generators)
- COVID-19 – related registers
- Any other checklist or inspection register deemed to be required for plant, equipment & facilities during the course of the project or as stipulated in the OHS Act and other statutory requirements

35. EMERGENCY PREPAREDNESS & RESPONSE

- a. The PC shall determine potential emergencies based on the risk profile and baseline risk assessment including any other risk assessment processes and shall develop emergency response plans addressing the steps and procedures required in case of each emergency. These shall address response and rescue procedures for fall from heights, injuries, excavation collapse, electrocution (where relevant), and others as deemed appropriate in the risk profile and baseline risk assessment as well as any statutory requirement
- b. The PC shall determine, obtain and maintain the necessary facilities and emergency equipment required for the project based on site specific emergency response plans, project baseline risk assessment, requirements of the OHS Act and local by-laws, any other statutory requirements as well as if deemed appropriate and required by the CHSA
- c. Emergency response plans shall be specific, concise and relevant to the activities and shall be communicated to all employees, Sub-contractors, suppliers, service providers and visitors as well as displayed on notice boards
- d. Emergency notices and signage relevant to emergency procedures and equipment on the site and as stipulated in the General Safety regulations and any other statutory requirement including this SSHSS shall be erected and made / maintained in a visible condition
- e. The PC shall ensure that provisions in terms of General safety regulation 3, Construction regulations 29, Local by-laws, other applicable by-laws and this SSHSS are complied with at all times
- f. No emergency equipment or signage may be obstructed at any time
- g. The PC will assign an Emergency Co-ordinator, assisted by the Fire Equipment Inspector and the First aider/s who will be responsible to ensure that emergency response plans are developed, implemented and maintained, that notices and signage relevant to the project are posted and maintained, that evacuation procedures are available and strategy assembly points are established and that regular drills are undertaken regularly for all response plans at least every 6 months. The PC shall take into consideration the absence from site of the appointed Emergency Co-ordinator, Firefighter or First aider at any given time for any given reason and ensure that appropriate measures are taken to ensure alternative appointees in this regard.

- h. The PC shall ensure that roll calls are implemented in the case of emergency drills and actual emergencies for all employees, sub-contractors and visitors to the site
- i. The PC shall ensure that all emergency drills are appropriately recorded and available for inspection by the Client, its appointed agent or an Inspector

36. LEGAL AND OTHER REQUIREMENTS

- a. The PC shall determine all Occupational Health & Safety Legal and other requirements pertaining to the project are identified and that the current versions thereof are made readily available on site. These shall include, but are not limited to:
 - OHS Act & Regulations
 - Construction Regulations 2014
 - COID Act
 - National Disaster Management Act and relevant Regulations
 - All relevant notices and directives as set out by the Minister of Employment and Labour
 - National Code of Practice for the Evaluation of Training Providers
 - Relevant Standards incorporated in the OHS Act and other Acts applicable to the project
 - local by-laws
 - Hazardous Substances Act
 - National Road Traffic Act
 - Tobacco products Act
 - This SSHSS
 - Any other applicable legal & statutory requirements pertaining to the works
- b. The PC shall ensure compliance to any and all legal and statutory requirements relevant to this project and the provisions therein including compliance by any Sub-contractor, Supplier, Service provider and visitor to the site
- c. The PC shall ensure that updates to any legal and statutory requirements including those listed above are implemented.
- d. The PC shall ensure that compliance with relevant legal and statutory requirements are evaluated during monthly internal audits

37. MANAGEMENT OF CHANGE

Unforeseen changes (whether temporary or permanent) that may pose a risk to employees, sub-contractors, visitors and other affected parties may include, but are not limited to, changes to:

- Scope
- Material
- Client requirements
- Standards
- Policies
- Staff
- Risks
- Legislation
- Method Statements
- Processes
- Risk Controls
- Internal procedures
- Drawings
- Project program
- Plant
- Changes to documentation
- Area of work
- Allowable/s / rates
- Site camp layout and Site facilities
- Personal Protective Equipment
- Emergency Equipment

- a. In the event of any changes as stipulated, the PC shall provide for appropriate frameworks for identifying and analysing risks associated with a recommended change to ensure Zero Harm. The PC shall conduct a comprehensive Hazard review prior to commencement of the change and shall identify appropriate risk mitigation recommendations for implementation prior to commencement of the change.

All of the above provisions and procedures shall be recorded, and evidence shall be kept in the project health and safety files

38. PERMITS TO WORK

- a. The following permits to work shall be developed and implemented for the project, as a minimum, based on the project risk profile and Baseline Risk assessment:
- Permit to Work at heights
 - Isolation & lock out permit
 - Confined Space entry Permit
 - Hot work permit
- b. The Permit to Work for the above applicable activities shall be signed off by the PC's appointed Senior site representative prior to commencement of the works
- c. Permits to work shall be closed in writing at completion of the relevant works
- d. Documented proof of permits shall be kept in the PC's Health & Safety Files

39. LEGAL APPOINTMENTS

- a. The PC shall, in writing, select and appoint competent designees to fulfil various roles where and as stipulated in the OHS Act and Regulations as well as where required by other statutory requirements. The PC shall ensure that proof of competency is attached to each legal appointment.
- b. All documented legal appointment shall be fully signed and filed in the PC's health and safety files where they will be made available for inspection and / or review.
- c. The PC shall ensure that legal appointments remain updated at all times and, where an appointment, for any reason, is cancelled, the PC will select an alternative competent person to carry the appointment. Cancelled legal appointments shall be retained as evidence, however, should be clearly indicated as "obsolete" and filed separately as records
- d. At completion of the works, all legal appointments will be cancelled by the CHSA and copies of all legal appointment will be issued to the CHSA. Refer to section 38 of this SSHSS.
- e. Statutory legal appointments relevant to the project will include, but are not limited to:
- OSHA 16(1) / OHSA 16(2) Responsible person
 - CR 8(1) Construction manager
 - CR 8(2) Assistant construction manager (*where relevant, or deemed necessary by the PC, Client or an inspector*)
 - CR 8(7) Construction supervisor
 - CR 8(8) Assistant construction supervisor (*where relevant, or deemed necessary by the PC, Client or an inspector*)
 - CR 8(5) Construction safety officer (*Part time, Proof of SACPCMP registration required*)
 - CR 9(1) Risk assessor
 - CR 10(1)(a) Fall protection planner

- CR 12(1) Temporary works designer (*Where this becomes relevant*)
- CR 12(2) Temporary works Supervisor (*Where this becomes relevant*)
- CR 13(1)(a) Excavation Supervisor (*Where this becomes relevant*)
- CR 14(1) Demolition Supervisor (*Where this becomes relevant*)
- CR 16(1) Scaffold Supervisor
- CR 24 C Temporary electrical installation inspector
- CR 28(a) Stacking and storage inspector
- CR 29(H) Firefighting equipment inspector
- DMR 18(5)&(6) Lifting machine inspector
- EMR 9 Portable electrical equipment inspector
- ER 9(1)&(2) Emergency & fire precaution marshal
- GAR 9(2) Incident investigator
- GSR 3(4) First aid attendant
- GSR 9 Welding and flame cutting equipment supervisor (*where this becomes relevant*)
- GSR 13A Ladder inspector
- HCSR 2 Hazardous chemical substance co-ordinator
- PER 13(1)(b) Pressure equipment inspector
- Sect 8(2) & GSR 4 Banksman & signaller
- CR 23d(i) Construction vehicle and mobile plant operator / inspector
- Group iv Hazardous substances regulations (R.247 of 26 Feb 1993) Radiation Protection Officer and Acting Radiation Protection Officer (*Where this becomes relevant*)
- CR 21(2)(b) Explosive Actuated Fastening Device Inspector (*Where this becomes relevant*)
- Traffic Safety Officer (*where this becomes relevant*)

40. NOISE INDUCTED HEARING LOSS

- a. In terms of section 4 of the Noise Induced Hearing Loss regulations, the PC shall provide training for all employees (incl. Sub-Contractor employees) who may be exposed to noise at or above the noise-rating limit that incorporates the following—
- the content and scope of the Noise Induced Hearing Loss regulations
 - the potential sources of exposure to noise.
 - the potential risks to health and safety caused by exposure to noise.
 - the measures taken by the employer to protect an employee against the detrimental effects of exposure to noise.
 - the precautions to be taken by the employees to protect themselves against the health risks associated with the exposure, including the wearing and use of earplugs and earmuffs.
 - the necessity, correct use, maintenance and limitations of hearing protectors, facilities and engineering control measures provided.
 - the assessment of exposure, the purpose of noise monitoring, the necessity for medical surveillance and the long-term benefits and limitations of undergoing such surveillance.
 - the noise-rating limit for hearing conservation and its meaning.
 - the procedures for reporting, correcting and replacing defective personal hearing protectors and for engineering noise control measures; and
 - the duties of persons who may be exposed to noise
- b. The above training shall be conducted prior to the placement of an employee (incl. Sub-Contractor employees)
- c. Refresher training shall be conducted annually or at intervals that may be recommended by the health and safety committee or the CHSA

- d. The training shall be provided by a person who is competent to do so and who has adequate personal practical experience and theoretical knowledge of all aspects of the work carried out
- e. The PC shall ensure that his or her mandatories or persons other than employees who may be affected by noise exposure at the workplace are given adequate information, instruction and training.
- f. An employer shall keep a record of any training that is given to an employee in terms of the Noise Induced Hearing Loss Regulations

41. HAZARDOUS CHEMICAL SUBSTANCE MANAGEMENT

- a. Relevant Material Safety Data Sheets (MSDSs) will be made available on site and communicated to the relevant persons that may be exposed to a chemical (including First Aid Attendants & Fire Fighters) and made readily available. Exposed persons, first aiders and Fire fighters shall be informed of the location of MSDS sheets in order to be able to refer to the directions therein.
- b. Emergency response plans shall include considerations for the type of Hazardous Chemical Substances that workers may be exposed to and necessary measures shall be determined and implemented to control potential emergencies.
- c. A competent person appointed in writing will be assigned as the Site Hazardous Chemical Substance Controller and will be responsible to ensure that:
 - All HCS storage areas are constructed and maintained in accordance with statutory and client requirements
 - A monthly inspection is conducted by him / herself and recorded and filed in the project OHS Files
 - HCS storage areas remain locked and may not be accessed by unauthorised persons
- d. Any hazardous chemical substance intended to be applied on site during the project (i.e. after approval of the H&S Plan) shall be subject to an issue-based risk assessment and method statement, which must be presented to the CHSA prior to the substance being introduced on site.
- e. A risk assessment in respect of sewer-borne hazardous chemical substances and hazardous biological agents shall be done and a method statement formulated and provided training on shall be available and implemented for all persons that may be exposed
- f. No other materials or equipment may be stored in hazardous chemical substance storage areas.
- g. Hazardous chemical storage areas must conform to the following:
 - Bunded and able to hold 110% of the chemical storage capacity stored within the area
 - Fitted with a suitable and serviced fire extinguisher
 - Warning and prohibitory signage as prescribed
 - In isolation from other areas (i.e. facilities, construction sites, workshops, etc.)
 - Ventilated
 - Lockable
 - Availability of Spill kit
 - Where required based on capacity, the PC will apply for permission from the Local Fire dept. prior to storage.
- h. Where fuel bowsers are used, the PC is required to ensure that the bowser is stored in a bunded area fitted with the appropriate warning and prohibitory signage including a suitable fire extinguisher. Provision is at all times to be made to prevent spillages during refuelling. Bunded areas must be able to hold 110% if the total capacity
- i. Bowsers are to be appropriately maintained in a good and clean condition and without leaks
- j. Bulk Diesel storage tanks must conform to the following requirements:
 - b. Bunded and able to hold 110% of the chemical storage capacity stored within the area
 - c. Equipped with a suitable refuelling slab designed to prevent spillages from leaks
 - d. Fitted with a suitable and serviced fire extinguisher
 - e. Warning and prohibitory signage as prescribed

- f. Signs indicating maximum storage capacity
- g. In isolation from other areas (i.e. facilities, construction sites, workshops, etc.)
- h. Ventilated
- i. Lockable
- j. Availability of Spill kit
- k. Where required based on capacity, the PC will apply for permission from the Local Fire dept. prior to storage.

42. CONSTRUCTION VEHICLES AND MOBILE PLANT (CV'S & MP'S)

- a. The PC will ensure that plant complies with the requirements of the OHS Act. Plant and equipment will be subject to regular inspections with keeping of appropriate records.
- b. A competent person shall be appointed to control the operation, use and maintenance of Construction Vehicles and Mobile Plant (CV&MP). He/she will be responsible for ensuring that CV&MP are operated, used and maintained to the following requirements: -

Construction Vehicles and Mobile Plant (CV&MP) shall be: -

- of acceptable design and construction.
 - maintained in good working order.
 - used in accordance with their design and intention for which they were designed.
 - Operated / driven by trained, competent and authorised operators / drivers.
 - operators and drivers of CV&MP must be in possession of a valid medical certificate declaring them physically and psychologically fit to operate or drive CV&MP.
 - provided with safe and suitable means of access.
 - fitted with adequate signalling devices to make movement safe including reversing.
 - excavations and other openings must be provided with sufficient barriers to prevent CV&MP from falling into them.
 - inspected daily before start-up by the driver / operator / user and the findings recorded in a register / logbook.
- c. No person may ride on a CV&MP except for in a safe place provided for the purpose.
 - d. The construction site must be organised to facilitate the movement of CV&MP and so that pedestrians and other vehicles as well as members of the public are not endangered.
 - e. CV&MP left unattended after hours adjacent to roads and areas where there is traffic movement must be fitted with lights reflectors or barricades to prevent moving traffic to come into contact with the parked CV&MP.
 - f. In addition, CV&MP left unattended after hours must be parked with all buckets, booms etc., fully lowered, the emergency brakes engaged and, where necessary, the wheels chocked, the transmission in neutral and the motor switched off and the ignition key removed and stored safely.
 - g. All CV&MP inspection records must be kept in the Site Health and Safety files

43. PRESSURE VESSELS

- a. The PC will ensure that Pressure Vessels comply with the requirements of the OHS Act and Pressure Equipment Regulations. Vessels will be subject pressure testing and to regular inspections with keeping of appropriate records by a competent person appointed in writing.
- b. The control of Pressure Vessels will include: -
 - Competency and awareness training of operators.
 - Safeguards such as whip-chains for all couplings / connectors
 - Pressure testing as required for all vessels including associated pipework and fittings
 - Log sheet of modifications / repairs and ad-hoc pressure testing
 - Statutory identification plate
 - Operating procedure including isolation and lock out
 - PPE (i.e. compulsory hearing protection)
 - Appropriate signage; and
 - Firefighting equipment.
 - Drip trays for mobile compressors

44. EMERGENCY EQUIPMENT

- a. Fire extinguishers will be provided (including spare ones) and serviced annually to ensure they are maintained in a proper operational condition.
- a. Fire extinguishers will be inspected on a monthly basis by the appointed person and results and deviations will be reported and kept in OHS Files
- b. The company will ensure adequate persons are trained and competent in firefighting.
- c. Fire extinguishers will be placed strategically with the prescribed signage and may not be obstructed at any time.
- d. The PC shall, based on site risks, this SSHSS and legal requirements, ascertain that emergency equipment that may be required for the works and shall ensure that the necessary equipment is obtained, maintained and made readily available to respond to emergencies as per response plans as referred to in section 36 of this SSHSS. Required emergency equipment shall also be provided if requested to do so by the Client or the CHSA. i.e. Fall rescue kits.
- e. First aid boxes shall be strategically located, and the relevant signage shall be erected and maintained
- f. First aid boxes will contain the name and the number of the first aider and shall be inspected monthly. First aid boxes shall contain a first aid register which shall be completed in respect of any first aid equipment used to treat any injury
- g. First aid boxes, fire extinguishers and other emergency equipment shall be maintained, stocked, inspected, tested, certified, etc. as the case may be at all times

45. TEMPORARY WORKS AND STRUCTURES

- a. A competent person shall be nominated to co-ordinate the various aspects of building the temporary works. The primary functions of the nominated person shall be to ensure that: -
- A competent temporary works designer is appointed in writing to design, inspect and approve the temporary works on site
 - A competent temporary works supervisor is appointed
 - All concerned with the construction of the temporary works are made aware of the up-to-date factors affecting it.
 - All are working to the most up-to-date drawings and that these are consistent with the detailers' or the form / false work designers' instructions.
 - The temporary work details have been checked by a second person.
 - All are working with the same programme towards the same loading time and date.
 - The interface areas between different parts of the temporary works structures, different contractors, or different categories of temporary works, have been fully considered and detailed or specified.
 - Any alterations in construction materials or methods have been agreed by the designer and others concerned.
 - The erected temporary works has been checked before loading.
 - Loading permits are issued (if required).
 - Permits for the dismantling of the temporary works are given (if required).
 - Records about the temporary works construction are kept including any decisions that altered its size or layout.
 - The load on the temporary works is not likely to be affected by any variations made in the layout of the permanent structure, since the temporary works design was completed; and
 - The erection and dismantling of the temporary works shall be carried out by a trained team who are experienced and familiar with the equipment or who are instructed and closely supervised.
- b. In the case of scaffolding, the following controls will apply:
- Appointment of a trained and competent scaffold inspector and erector.
 - All scaffolding to comply with the requirements of GSR and CR & SANS 10085
 - Where safe working platforms cannot be provided, fall arrest systems must be implemented
 - The PC is to ensure that all controls and provisions in terms of Construction Regulation 12 and clause 46a above are implemented for scaffolding structures
- c. In the case of structures, as per section 11 of the Construction regulations, 2014, the PC will ensure that:
- all necessary steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work.
 - no structure or part of a structure is loaded in a manner which would render it unsafe; and
 - all drawings pertaining to the design of the relevant structure are kept on site and are available on request to an inspector, other contractors, the client and the client's agent or employee.

46. FALL PROTECTION (*Heights and Depths*)

- a. The PC shall give careful consideration to selected fall protection and shall at all times opt for primary fall protection means or fall prevention measures such as:
- Safe work plat forms
 - Elevated work platforms
 - Work positioning systems
- b. All personnel on this project shall wear an approved, full body harness fitted with a double lanyard where fall arrest measures apply. All fall arrest equipment shall be of an acceptable design and shall be inspected monthly by a competent person
- c. The PC will make use of maximum primary fall protection systems (or fall prevention systems) such as scaffolds, etc. as far as practicable and will only resort to fall arrest where fall prevention is not possible.
- d. A work and site-specific fall protection plan shall be developed by a competent person in writing and in accordance with section 10 of the construction regulations
- e. The above fall protection plan shall include the following:
- a risk assessment of all work carried out from a fall risk position and the procedures and methods used to address all the risks identified per location.
 - Responsibilities for staff (i.e. Construction Manager and Supervisors, fall protection planner, Team leaders, Employees working at heights, etc.)
 - Measures for prevention of falling items onto persons below
 - the processes for the evaluation of the employees' medical fitness necessary to work at a fall risk position and the records thereof.
 - Primary and secondary fall protection devices (both prevention and arrest) to be used and associated procedures for erecting / operating / use / maintenance
 - Work positioning devices (if relevant)
 - Anchoring points with load & fall clearance calculations
 - a program for the training of employees working from a fall risk position and the records thereof.
 - the procedure addressing the inspection, testing and maintenance of all fall protection equipment; and
- a rescue plan detailing the necessary procedure, personnel and suitable equipment required to affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident. All equipment & associated training for rescue procedures (i.e. fall rescue kit) will be provided by the PC.
- f. The PC will ensure that a construction manager appointed under regulation 8(1) is in possession of the most recently updated version of the fall protection plan.
- g. No work at heights will be allowed where wind speed exceeds 34km/h or during rain / wet conditions
- h. **It is furthermore stressed that fall prevention and the relevant above measures will also apply in cases where employees may fall into excavations / trenches and/or any other unprotected edges.**

47. PUBLIC SAFETY MANAGEMENT

- a. Public safety will be required and any and all means will be implemented by the PC to ensure zero harm to any member of the public
- b. The PC shall establish means to divert pedestrians as to ensure that they do not enter the construction zone and clear, understandable and visible instructions and signage shall be erected for this purpose
- c. The PC shall inform nearby residents, businesses and other organisations, that may be affected by the works, of the nature of the works and the risks associated to the works prior to commencement and in writing
- d. The PC shall ensure that warning signs and / or barriers are clearly visible even at night-time.
- e. The PC shall take photographs at the end of each workday when all construction zones have been safeguarded and the PC shall keep record thereof as evidence.
- f. Appropriate warning signs shall be posted and maintained for the duration of the project to warn the public of the dangers associated to the project and instructing the public to remain outside of the construction zone
- g. The PC shall instruct all employees and subcontractors to assist in diverting public, pedestrians or employees from other organisations in close vicinity to the works, as to ensure that they do not enter the construction zone.
- h. The PC will ensure that all its workers and visitors are made aware of the dangers of its operational activities and the precautions to be observed to avoid the possibility of any incidents. Appropriate signage will be posted to warn members of the public entering the worksite that they are entering a danger zone.
- i. All visitors (or public) entering the construction site will have to undertake a brief induction training session detailing the hazards and risks present and controls for safeguarding. No visitors or public will be allowed on the site unless authorised and escorted by an authorised person

48. LIFTING MACHINES AND LIFTING TACKLE

- a. All lifting machinery and tackle shall be subject to inspections prior to use and on a monthly basis. The company will appoint a competent person responsible to perform the inspections and record such inspection outcomes as objective evidence:
 - Lifting equipment controls will include the following: -
 - Lifting equipment and tackle to have the safe working load clearly indicated.
 - Regular inspections and servicing being carried out.
 - Record kept of all inspections and maintenance; and
 - Proper supervision is provided in terms of guiding loads, including the appointment of a Banksman / Slinger to direct and check.
- b. The following shall apply to any crane used on site, including truck mounted cranes on delivery vehicles:
 - Each crane shall have (in the cab or operating area), the following legal documents on site at all times:
 - The latest and up-to-date load certificate of the crane.
 - A record of the 6-monthly inspection of the crane by a registered inspector.
 - The crane operator(s) current crane license.
 - The crane operator(s) medical certificate of fitness, issued by an occupational medical practitioner.
 - The inspection register or certification of 3-monthly inspection of all lifting equipment used with the crane.

- c. The H&S Plan shall include the method statement for safe use of the crane, including the method of communication, the protection of fall zones and the method of determining whether the weather permits safe crane work.
- d. Where loads exceed 3 tons, the PC will ensure that a valid rigging study and lifting plan developed by a competent person is submitted for approval by the Client or its agent prior to undertaking the lifting activity and thereafter implemented and maintained
- e. All lifting equipment and gear used on site shall be identified, SWL-indicated and listed in a register contained in the OHS File.
- f. A template inspection register of the lifting gear shall be included in the H&S Plan.
- g. The requirements for cranes and lifting operations apply equally to delivery trucks and the principal contractor shall ensure that all deliveries requiring lifting or rigging comply with the legal requirements.
- h. The H&S plan shall include a specific method statement listing the planned lifts and the planned methods of attachment and rigging.
- i. No lifting activities shall be undertaken where wind conditions exceed 34km/h. In this regard, the PC is responsible to anticipate any weather conditions that may affect lifting activities and plan accordingly in order to avoid risk of uncontrolled swinging loads.
- j. No person will be allowed underneath suspended loads. All suspended loads to be handled by means of guide ropes or similar preventing employees from entering drop zones.
- k. Sufficient measures shall be taken to prevent swinging or uncontrolled suspended loads. All employees involved in lifting activities or within a 5m radius of lifting activities, to wear an approved hard hat.
- l. Where the lifting activity does not require the formal appointment of a competent rigger, the PC shall ensure that a Signaller is assigned who has been appropriately trained in lifting / rigging safety procedures including the relevant lifting plan and risk assessment and who is familiar with and authorised to deal with risks associated to the activity being undertaking. All signallers shall hold a formal appointment letter detailing their duties.
- m. Where man-lift equipment is used, the principal contractor shall ensure compliance with Driven Machinery Regulation 18 and that competent persons are appointed in writing to ensure:
 - That all scissors lifts, cherry pickers, forklift with man-cages or any other lifting machine used to lift personnel are used only by a trained and competent operator in possession of a competency certificate issued by and accredited provider who holds a valid accreditation issued by an authorised body, in terms of the SAQA Act, and who is approved by the Chief Inspector, in terms the Driven Machinery Regulation 18.
 - That all lifting machines are load tested and inspected as required in Driven Machinery Regulation 18 and that the records thereof are either with the machine or in the principal contractor's OHS File.

49. LADDER SAFETY

- a. Ladders will not be allowed for works at or exceeding 9m from ground level
- b. The PC will ensure that Risk assessments, Method Statements and SWP's for activities where ladder work is intended, comprehensively address the prevention of fall from ladders, Objects falling from persons working on ladders onto others below & appropriate safeguarding & securing of ladders
- c. All ladders will be inspected regularly to ensure their safe operational condition.
- d. Ladders shall only be used for the purpose for which they are designed.
- e. Ladders shall be inspected regularly by a competent person that is appointed in writing and the record of the inspection shall be kept in the OHS File.
- f. No vertical ladders shall be accessed by any person unless firmly attached at the bottom and top or held in place by a fixed installation or a buddy.
- g. A-frame ladders shall have a patent spreader bar system.
- h. Ladders shall extend at least 90 cm above any level or opening accessed with the ladder.
- i. Where any tools / equipment / material is used during ladder work, the PC shall ensure that appropriate measures are implemented to prevent employees from carrying items while climbing ladders. 3-point contact shall be maintained at all times when using ladders. The PC shall instruct all its employees and mandatories in this regard.

50. PORTABLE ELECTRICAL EQUIPMENT

- a. The PC will ensure the proper storage and use of portable electric tools.
- b. Controls include the following: -
 - The appointment of competent persons to inspect portable electric tools on a regular basis.
 - Recording of inspections.
 - Competency of persons using these tools.
 - Awareness training.
 - Personal Protective equipment
- c. Faulty tools may only be repaired by a competent and qualified person and must be removed and replaced immediately
- d. Extension cords shall be classified as portable electrical equipment and shall be managed as prescribed
- e. The competent person shall certify and inspect all temporary electrical installations and machinery, including generators and leads; the frequency shall be determined in the H&S plan
- f. When portable electrical equipment is not in use, the PC will ensure that it is isolated from electrical energy (i.e. plugged out). The Pc shall furthermore ensure that it instructs all its employees and mandatories in this regard.
- g. The Principal Contractor shall include a method statement for the safe use of portable electrical tools and equipment

51. EXISTING SERVICES

- a) The PC shall familiarise himself with all existing services within the Construction zone. Existing services may include:
 - Underground electrical cables
 - Sewers
 - Overhead cables
 - Others as may be identified in design drawings
- b) The PC shall develop, implement and maintain a SWP addressing work close to existing services
- c) No work may be undertaken within 3m from any overhead service unless arrangement is made for isolation of these services and other measures as prescribed by the client which may include dummy lines, warning signs, notifications, etc.
- d) These activities may include lifting / crane operations, Elevated work platforms, scaffold work, ladder work, etc.
- e) The PC will treat all existing services as "live" and will instruct all employees and its mandatories in this regard
- f) Where underground existing services may be affected, the PC is responsible to ensure the following controls:
 - Use of cable detectors
 - Reference to survey results and drawings
 - Exposing of existing services by hand

52. POWER TOOLS

- a) No person may operate a power tool unless he / she is competent and authorised to do so
- b) Power tools shall be inspected prior to use and records of inspections shall be retained in the OHS File
- c) All power tools and its moving parts shall be fitted with appropriate guards (where required) which will form part of pre-use inspections
- d) The PC shall ensure that persons using power tools are issued with appropriate PPE (i.e. face shields, gloves, etc) and that all surrounding persons are safeguarded from any hazards posed by the use of power tools
- e) Persons using grinders shall at all times be equipped with double eye protection (face shield and safety goggles)
- f) Rules pertaining to the use of power tools shall be addressed in the PC's induction training
- g) The PC shall ensure that users of Power tools are provided with appropriate work benches where applicable.
- h) All power tools must be isolated from electrical energy when not in use (i.e. plugged out). The PC will instruct all its employees and mandatories in this regard
- i) All faulty power tools will be immediately removed from service and prevented from use.

53. WELDING & HOT WORK ACTIVITIES

- a) All welding- and flame cutting machinery and all PPE used in these operations shall conform to the standard incorporated in the OHS (see General Safety Regulations).
- b) All welders, flame cutters or other persons doing hot work shall be competent and fully instructed in the safe operation and use of all equipment and in the hazards, which may arise from its use.
- c) Hot workers and their assistants shall be provided with and use effective protection for the eyes and for the respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing against heat or flying particles or dangerous radiation.
- d) Welding leads and electrode holders shall be effectively insulated, inspected and maintained.
- e) Where the hot work area cannot be effectively partitioned, all persons accessing the area shall be instructed and provided with suitable protective equipment.
- f) The welding and hot work procedure or method statement shall include the ventilation arrangements, where applicable the management of masks or hoods maintaining a supply of safe air for breathing shall be defined.
- g) The welding and hot work method statement / procedure shall include the method to ensure that, where electric welding is undertaken in a wet or damp environment or inside the metal vessels or in contact with large masses of metal, the necessary precautions are designed, planned, applied and maintained. This shall include, amongst other:
 - Effective insulation of the electrical leads.
 - That the electrode holder is completely insulated to prevent accidental contact with current-carrying parts.
 - The welding operator is completely insulated by means of boots, glove or rubber mats.

- At least one other person who has been properly instructed to assist the welder in case of an emergency is and remains in attendance during operations
- h) No welding, flame cutting, grinding, soldering or similar work in respect of any tube, tank, drum, vessel or similar object or container may be done unless the contractor puts controls in place to ensure that:
 - A rise in internal pressure does not pose a hazard.
 - The structure does not contain, or the process develop any substance which may ignite or explode.
 - The process does not cause a confined space; except that the principal contractor's controls for confined space work may then be applied. In this event, a competent person appointed in writing shall examine, test and measure the space and pronounce on the safety thereof in writing.
- i) The principal contractors shall take steps to ensure that proper and adequate fire precautions are taken; the Principal Contractor shall provide suitable fire extinguishers, which shall be serviced regularly, in accordance with the manufacturer's recommendations.
- j) The Principal Contractor shall arrange for the training of the relevant personnel, in the use of fire extinguishers.
- k) The fire extinguisher inspection register and the letter of appointment of the competent inspector shall be included in the H&S Plan.
- l) No hot work is permitted on site or in the builders' yard unless appropriate screens, fire prevention, fire extinguishing and a documented safe work permit system are all in place.
- m) The principal contractor shall include a hot work method statement in the H&S plan for approval. Each person perform hot work shall be trained in the use of a fire extinguisher and this training shall be documented in the OHS File.

54. EXPLOSIVE ACTUATED FASTNING DEVICES (where it may apply)

- a) The Principal Contractor shall submit proof of competency and the appointment letter of the person in charge of explosive actuating fastening devices and of the person in charge of the issuing and collection of cartridges and nails. This shall be placed in the H&S plan.
- b) The H&S Plan shall include the method statement for the safe use of explosive actuating fastening devices, including the type of PPE, barricading and warning notice which the contractor intends to use and the method of accounting for cartridges and nails.
- c) The H&S Plan shall include proof of training and competency of all operators using explosive actuating fastening devices.
- d) A template inspection register of explosive actuating fastening device shall be included in the H&S Plan.

55. HAND TOOLS

- a) The PC shall ensure that hand tools are inspected prior to use and are suitable for the work to be conducted at all times
- b) Damaged hand tools must be removed from service immediately and prevented from use until it can be removed from site
- c) No modified / altered hand tools will be permitted on site
- d) Where hand tools are used at heights (i.e. ladders / scaffolds), the PC is required to provide appropriate tool belts or other similar controls to prevent items from fall onto persons below

56. ROAD TRAFFIC MANAGEMENT & CONTROL

- a) Prior to the commencement of any road works on a public road, the PC shall submit a method statement and safe work instruction detailing all measures to be taken in terms of traffic management & control to prevent harm.
- b) The PC shall submit a detailed layout of all traffic control and accommodation measures which will include road traffic signs, flagmen, and other measures.
- c) All accommodation and control measures shall be in accordance with the South African Road Traffic Signs Manual and other statutory requirements
- d) Traffic management plans shall be developed prior to commencement of any works that may affect roadways and will be subject to approval by the Engineer and the CHSA

- e) The PC shall take all measures to monitor traffic management controls as to ensure that they remain adequate, active and effective at all times. Where required, the PC shall liaise with local road traffic authorities in order to ensure that compliance and safeguarding are maintained
- f) Deviations noted shall be rectified immediately as to ensure that measures remain in place. The traffic accommodation & public safety checklist shall be documented when completed and records of findings, rectifications and others shall be filed in the PC's health & safety management files
- g) Signage used for the purposes of traffic accommodation shall be visible at all times and especially during night times
- h) The PC shall implement appropriate measures to ensure that road users are safeguarded from any debris that may enter onto roadways which may arise from any construction work activity being undertaken.

57. EXCAVATION, SHORING, DEWATERING OR DRAINAGE

- a) The PC will make provision for suitable safeguarding of all excavations to prevent collapse. Safeguarding will include (depended on ground conditions and geotechnical report), the sloping, battering, benching, box-cutting or shoring of an excavation. The CHSA reserves the right to suitably address, instruct or advise on means of safeguarding excavations.
- b) No objects, plant, rocks or any other material or equipment may be within 1.5m from embankments. Stockpile material may not be within 1.5m from embankments and may not exceed a height of 2m.
- c) Sufficient means of access and egress will be provided for excavations by means of suitable ladders. Ladders must extend at least 900mm from landings / embankments.
- d) Suitable access and egress must be available within 6m from any point of occupation inside the excavation
- e) The PC shall develop, communicate and implement emergency procedures dealing with steps to be taken in case of excavation collapse.
- f) The PC will ensure that: -
 - i. Excavations are inspected prior to shift start by a competent person appointed in writing and records of such inspections will be kept.
 - ii. Excavations are guarded; regardless of depth and visible warning signs are erected
 - iii. Safe working procedures and risk assessments have been communicated to workers; and
 - iv. Safe working procedures are enforced and maintained by the appointed responsible persons.
 - v. Excavations that may be in the drainage path of rain run-off are pumped empty and kept free of water.
 - vi. Excavations that may be adjacent to active mobile plant work areas will be guarded with visible barriers; roadways will be established at least 2m from embankments. Operators and drivers will be informed of the risks involved
- g) Visible and appropriate barriers and warning signs will be posted along all open excavations as to warn nearby public during night-time, weekends and leave periods. All nearby communities will be informed on the risks associated with the project. Site signage will include warning signs prohibiting unauthorised access to the construction site
- h) Any existing services will be identified prior to excavation and appropriate controls will be implemented. The PC shall ensure that the position of all existing services affected by the works have been verified before construction works commences and identify whether it may be necessary to lower or relocate any service. For this purpose, the company shall:
 - i. Take all necessary steps to ascertain the location of existing services before commencing any section of the works and exercise the greatest care when working in the vicinity of such services and
 - ii. Where required, contact the various service providers, arrange a meeting and verify all known as well as possible unknown services on site.
 - iii. Take all necessary steps to protect any existing works whatsoever against damage which may arise as a result of operations on Site.
- i) For work crossing overhead lines, appropriate clearance distances shall be established, and visible warning signs will be erected at the overhead line. All control measures pertaining to work close to or crossing overhead lines shall be documented and formally communicated to all relevant employees and operators
- j) Where excavations may be open to erosion; a maximum duration of exposure shall be defined in the OHS plan
- k) Where excavations may be in the drainage path of rain run-off; a method statement ensuring that all excavations filled with water are pumped empty and kept free of water must be included in the OHS plan

- l. Where excavations may be adjacent to active mobile plant work areas and the side walls may be subject to forces from traffic or nearby earthworks; the OHS plan shall include controls to prevent traffic or mobile plant work near excavations in which employees are at work
- m. Where the site may be accessible to members of the public and nearby residents at night and during the weekend, appropriate protection and access protection measures must be planned by the principal contractor and implemented at all times
- n. The letters of appointment and proof of competency of the competent excavation supervisor(s) and inspector(s) must be included in the OHS plan.
- o. The PC shall refer to geotechnical data available at all times and plan the works accordingly as to ensure that all areas have been appropriately safeguarded
- p. Excavations may not be left open for longer than specified and those that are left open on the site must be protected by a suitable and visible barrier or a fence of at least one metre in height, as close to the excavation as is practicable. The protective barrier or fence must adequately prevent persons (including the public) from falling in the excavation. Barrier taping / danger tape is not sufficient for this purpose. Suitable and visible warning signs shall also be posted and clearly visible at open excavations.
- q. Where persons work, inspect or test excavations, no mobile moving machinery will be allowed within 5m from the excavation wherein the work is being performed.

58. HIGH VOLTAGE ELECTRICAL EQUIPMENT

- a) Controls that will be exercised in cases where high voltage electrical equipment is encountered will include: -
 - i. Once services have been identified and located, Plant Operator(s) should be advised of details.
 - ii. Undertake an on-ground inspection to ensure that they are fully aware of the services in the vicinity and in particular overhead electrical services.
 - iii. An observer is to assist the operator to constantly check on the location of the service and must be present during service location and while conducting activities within the vicinity of these services
 - iv. The PC shall establish appropriate clearance distances and where these services cannot be isolated, dummy lines will be arranged
 - v. Warning signs will be erected and maintained indicating the appropriate clearance

59. RADIATION (USE OF NUCLEAR DENSITY GAUGES)

- a. The principal contractor shall appoint a competent person in charge of all ionising radiation equipment as site- radiation protection officer
- b. The principal contractor shall ensure full compliance with the Hazardous Substances Permit issued by the Department of Health.
- c. The principal contractor shall place a copy of the Hazardous Substances Permit issued by the Department of Health in the H&S plan for approval.
- d. Nuclear density gauges shall be stored in a lockable and suitable facility further than 15m from offices, facilities or any other area that is regularly occupied. Storage areas shall be equipped with a suitable safety / warning sign containing the contact number of the appointed Radiation Protection Officer and Assistant
- e. Nuclear density gauges shall only be transported in approved vehicles in lockable cabs by a competent driver. Vehicles will be equipped with the relevant signage. No persons may be transported with radiation equipment

60. TUNNELING (Should this become relevant)

Where activities involving tunnelling is performed, the following will apply:

- i. Specialised and competent tunnelling contractor to be appointed.
- ii. Suitable and detailed method statement and risk assessment to be developed by the responsible contractor / person and to be submitted for approval by the Project team and the CHSA
- iii. Any time an employee is working underground, at least one designated person must be on duty above ground as a safety watch that is trained in first aid measures.
- iv. This person is responsible for calling for immediate assistance and keeping an accurate count of employees who remain underground in the event of an emergency.
- v. A competent person must inspect the roof, face, and walls of the work areas at the beginning of each shift and as often as necessary to ensure ground stability.
- vi. The competent person tasked with such inspection responsibilities must be protected from loose ground by location, ground support, or equivalent means.
- vii. Safe working procedures to address collapse prevention measures will be developed, communicated and implemented.
- viii. Emergency procedures to be developed communicated and implemented.
- ix. Installation of approved ground support mechanisms.
- x. Daily and pre-entry ground stability inspections to be performed by a competent person.
- xi. Persons entering tunnel to be connect to lifeline leading to the safety watch on the outside of the tunnel.
- xii. Flooding protection / dewatering systems to be installed.

61. BLASTING ACTIVITIES (should this become relevant for excavation in hard rock environments)

- a) Where blasting activities may become relevant as a means of dealing with hard rock, the following will apply:
- i. A Specialised and approved blasting contractor to be appointed.
 - ii. A suitable and detailed method statement, risk assessment and safe work instruction to be submitted to the project team and the CHSA prior to blasting activities
 - iii. Procedures for pre-blast inspections, security as well as the demarcation and implementation of "safe-zones" and "danger-zones" to be developed, approved and implemented. The above shall include specific provisions for the prevention of unauthorised access to the blasting zone
 - iv. Affected roadways to be closed, documented proof of notification of blast required. Pre-and-post blast sirens to be implemented
 - v. Surveys to be carried out by the specialised blasting contractor and the PC detailing where blasting activities may affect public, residents, businesses, organisations, structures and any other area deemed to be affected that may result in harm due to blasting activities. Pre-and-post photographic evidence of any nearby structure, service or road will be kept on record. The results of these surveys will be documented and will include suitable prevention measures. Documented results and procedures will be issued to the Project team and the CHSA for approval prior to commencement of any blasting activities
 - vi. Competent and suitably qualified blasting manager will be appointed
 - vii. Misfire inspections to be carried out following blasting and prior to "all-clear" command
 - viii. Nearby public, businesses and any other organisations (including the aerodrome) to be notified of the blasting activity in writing and proof of correspondence to be kept in OHS files for inspection. This will include all stakeholders within an 8km radius of the blasting activities
 - ix. All provisions in terms of the Explosives Act and the Explosives Regulations and any other legal requirements to be adhered to prior to blasting

ANNEXURE 1 – COMPULSORY OHS FILE LAYOUT FOR CONTRACTORS

No	Element	Content Guidelines & Examples
1	Index to H&S Plan / File	In accordance with this document
2	Scope of Work	Describe <u>all</u> site-specific activities as per contract agreement. All areas to be included and details.
3	Notification to Commence Construction Work	With proof of acknowledgement from Dept. of Employment and Labour All parties sign & dated
4	Contract Agreement CR 5 (1) (k) Contractor Appointment	Both parties sign & dated Both parties sign & dated
5	H&S Mandatary Agreement (S37 (2))	Both parties sign & dated
6	Client OHS Specification	Site Specific H&S Specification Acknowledgement to be fully signed and dated
7	Letter of Good Standing	Current and valid
8	OHS Plans	- All plans as specified in SSHSS and as may be relevant
9	Hazard Identification Risk Assessments & Risk Management	- Risk Register - Risk Assessment Monitoring & Review Procedure - Baseline Risk Assessment (as issued by Client) - Issue Based Risk Assessments (all activities – linked to Method Statements)
10	Emergency Plan & Response	- Emergency Planning & Response Procedure - All response plans as per SSHSS - Emergency Contact Numbers & Detail - Emergency Procedure Flow Chart
11	OHS Policies	- OHS Policies
12	Organisational Chart	- Site Specific organisational chart - Positions indicated legal reference - Person/s names - Organisational chart to be cross referenced to relevant legal appointments
13	Legal Appointments	- In accordance with OHSA 85 of 1993, Construction Regulations, 2014 and other relevant legal and statutory requirements - All appointments must be signed & dated - Appointments to be correspond with organisational chart
14	Medical Certificates	- All workers (Registered Occupational Health Practitioner and issued in the form of Annexure 3 or similar)
15	CV's & Competency Certification	- Competency certification - CV's - Competency Certificates
16	Site Induction & H&S Awareness Training	- Proof of Induction Training - Training Matrix / Record / SWP / WI / MS / RA / SAMTRAC / Fire Fighting / First Aid / Mobile Plant & equipment / IRCON / Supervisor Safety / HCS / PPE - Environment Awareness / HSR / Legal liability /

		<ul style="list-style-type: none"> - Risk Assessor / Incident Investigation / Site & Company Induction / Safety / Tool Box Talks / Safety Awareness Posters / Etc, etc
17	Accident / Incident Management including First Aid Facilities	<ul style="list-style-type: none"> - Incident investigation procedure - Section 24 Procedure – Annexure.1 & WCL.2 - Injury recording - Incident investigations and reports - Preventative & corrective actions
18	Access, Traffic Control & Public Safety Management	<ul style="list-style-type: none"> - Security, Public & Visitor Safety procedures and associated forms / registers
19	Hazardous & Flammable Substance Management	<ul style="list-style-type: none"> - MSDS - Hazardous chemical substance storage checklists - Handling, use, storage & disposal procedures / instructions
20	Work Permits	<ul style="list-style-type: none"> - Confined space permit - Hot work permit - Working at heights permits - Hazardous Chemical Substance Permits - Energy lockout permit (LOTO where relevant) - Excavation Permit
21	Daily Safe Task Instruction (DSTI)	<ul style="list-style-type: none"> - DSTI / Daily Mini Risk Assessments
22	Inspection Registers & Certificates (C.O.C)	<ul style="list-style-type: none"> - Plant, machinery & equipment inspection registers - Excavation inspection register - PPE inspection register - Stacking & Storage inspection register - Housekeeping Inspection register etc
23	Facilities Management Procedures (male / female)	<ul style="list-style-type: none"> - Washing - Sanitary - Change room - Sheltered Eating - Accommodation / Transportation
24	PPE Management	<ul style="list-style-type: none"> - PPE Needs Analysis & matrix - PPE Issue record
25	Contractor Management (additional sub-contractors appointed by the Principal Contractor)	<ul style="list-style-type: none"> - H&S Agreement (S37(2) (signed) - CR 7(1)C – Appointments (signed) - Record of Contractor audits - List of Sub-Contractors (with details i.e. contacts, description of work, email, responsible person, date commenced and completed, etc)
26	Safe Work Procedures and/or Work Instructions	<ul style="list-style-type: none"> - As per SSHSS
27	H&S Inspections & Audits	<ul style="list-style-type: none"> - Internal & External Audits to be filed here
28	Legal Requirements	<ul style="list-style-type: none"> - Note: Electronic copies or hard copy book form will be accepted. This section can be used for Statutory notices, updates, amendments etc.
29	H&S Committee / Safety Meetings	<ul style="list-style-type: none"> - H&S Committee / safety meeting minutes - Committee member appointment - Record of elected SHE reps
30	Record Keeping Management	<ul style="list-style-type: none"> ▪ As per SSHSS (records management)
31	COVID-19	<ul style="list-style-type: none"> ▪ Covid 19 plan & risk assessment

ANNEXURE 2 – OHSA SECTION 37(2) AGREEMENT

SECTION 37(2) MANDATORY H&S AGREEMENT:

WRITTEN AGREEMENT ON
OCCUPATIONAL HEALTH AND SAFETY

In accordance with the provisions of Section 37(2) of the Occupational Health and Safety Act 85 of 1993 as amended

AS ENTERED INTO BY AND BETWEEN

(Hereinafter referred to as “the Employer”)

AND

(Hereinafter referred to as “the Mandatory”)

Compensation Fund number: _____

Common Law Liability

Insurance in respect of Third

Parties for the Minimum Sum of R... _____

1. **Reporting**

The Mandatory and/or his designated person appointed in terms of Section 16 (2) of the Occupational Health and Safety Act 85 of 1993 ("the OHS Act") as amended shall report to the Construction Manager CR 8.1 and/or a representative designated by the Employer prior to commencing the work at the premises.

2. **Warranty of compliance**

2.1 In terms of this agreement the Mandatory warrants that he agrees to the arrangements and procedures as prescribed by the Employer and as provided for in terms of Section 37 (2) of the OHS Act for the purposes of compliance with the Act.

2.2 The Mandatory acknowledges that this agreement constitutes an agreement in terms of Section 37 (2) of the OHS Act, whereby all responsibility for health and safety matters relating to the work that the Mandatory and his employees are to perform on the premises shall be the obligation of the Mandatory.

2.3 The Mandatory further warrants that he and/or his employees undertake to maintain such compliance with the OHS Act. Without derogating from the generality of above, neither from the provisions of the said agreement, the Mandatory shall ensure that the clauses as hereunder described are at all times adhered to by himself and his employees.

3. **Refer:**

- Occupational Health & Safety Act No.85 of 1993 as amended including Regulations
- Hazards Chemical Substance Regulations of 1995
- Compensation for Occupational Injuries and Diseases Act 130 of 1993 as amended
- Hazardous Substance Act 15 of 1973
- National Environmental Management Act 107 of 1998
- National Environmental Management: Air Quality Act 39 of 2004
- National Road Traffic Act No.83 of 1996
- National Water Act 36 of 1989
- National Building Regulations and Building Standards Act 103 of 1977

4. **Mandatory an employer**

The Mandatory shall be deemed to be an employer in his own right while on the Employer's premises. In terms of Section 16 (1) of the OHS Act, the Mandatory shall accordingly ensure that himself, and/or his nominated Chief Executive Officer comply with the requirements of the OHS Act.

5. **Appointments and training**

5.1 The Mandatory shall appoint competent persons as per the OHS Act 85 / 1993, Construction Regulations 8.1 and Construction Regulations 8.7 – referring the Construction Regulations 2014.as well as other workplace legislative appointments as per workplace activities in accordance with the OHS Act 85 / 1993

5.2 Any such appointed person shall be trained on any occupational health and safety matter and the OHS Act provisions pertinent to the work that is to be performed under his responsibility.

5.3 Copies of any appointments made by the Mandatory shall immediately be provided to the Employer.

- 5.4 The Mandatory shall further ensure that all his employees are trained on the health and safety aspects relating to the work and that they understand the hazards associated with such work being carried out on the premises.
- 5.5 Without derogating from the foregoing, the Mandatory shall in particular, ensure that all his users or operators of any materials, machinery or equipment are trained in the use of such materials, machinery or equipment.
- 5.6 Notwithstanding the provisions of the above, the Mandatory shall ensure that he, his appointed responsible persons and his employees are at all times familiar with the provisions of the OHS Act, and that they comply with the provisions of the Act.

6. **Supervision, discipline and reporting**

The Mandatory shall ensure that all work performed on the Employer's premises are done Under strict supervision and that no unsafe or unhealthy work practices are permitted. Discipline regarding health and safety matters shall be strictly enforced against any of his employees regarding non-compliance by such employee with any health and safety matters.

The Mandatory shall further ensure that his employees report to him all unsafe or unhealthy work situations immediately after they become aware of the same and that he in turn immediately reports these to the Employer and/or his representative.

7. **Access to the OHS Act**

The Mandatory shall ensure that he has an updated copy of the OHS Act on site at all times and that this is accessible to his appointed responsible persons and employees, save that the parties may make arrangements for the Mandatory and his appointed responsible persons and employees to have access to the Employer's updated copy/copies of the Act.

8. **Cooperation**

- 8.1 The Mandatory and/or his responsible persons and employees shall provide full co-operation and information if and when the Employer or his representative enquires into occupational health and safety issues concerning the Mandatory.
- 8.2 It is hereby recorded that the Employer and his representative shall at all times be entitled to make such inquiry.
- 8.3 Without derogating from the generality of the above, the Mandatory and his responsible persons shall make available to the Employer and his representative, on request, all and any checklists and inspection registers required to be kept by him in respect of any of his materials, machinery or equipment

9. **Work procedures**

- 9.1 The Mandatory shall be entitled to utilise the procedures, guidelines and other documentation as used by the Employer for the purposes of ensuring a healthy and safe working environment.
- 9.2 The Mandatory shall then ensure that his responsible persons and employees are familiar with and utilise the documents.
- 9.3 The Mandatory shall implement safe work practices as prescribed by the Employer and shall ensure that his responsible persons and employees are made conversant with and adhere to such safe work practices.
- 9.4 The Mandatory shall ensure that his employees prior to the obtaining of such a permit do not perform work for which the Employer requires a permit.

10. **Health and safety meetings**

- 10.1 If required in terms of the OHS Act, the Mandatory shall establish his own health and safety committee(s) and ensure that his employees, being the committee members, hold health and safety meetings as often as may be required and at least once every three (3) months.
- 10.2 The Employer may elect to permit the Mandatory's health and safety representatives or a mandatory representative to attend the Employer's health and safety committee meetings.

11. **Compensation registration**

- 11.1 The Mandatory shall ensure that he has a valid registration with the Compensation Commissioner, as required in terms of the Compensation for Occupational Injuries and Diseases Act 130 of 1993, and that all payments owing to the Commissioner are discharged.
- 11.2 The Mandatory shall further ensure that the cover shall remain in force while any such employee is present on the premises.

12. **Medical examinations**

The Mandatory shall ensure that all his employees undergo routine medical examinations and necessary vaccinations where applicable and that they are medically fit for the purposes of the work they are to perform.

13. **Incident reporting and investigation**

- 13.1 The Mandatory to the Department of Labour and to the Employer shall report all incidents referred to in Section 24 of the OHS Act.
- 13.2 The Employer shall further be provided with copies of any written documentation relating to any incident.
- 13.3 The Employer retains an interest in the reporting of any incident as described above as well as in any formal investigation and/or inquiry conducted in terms of Section 32 of the OHS-Act into such incident.

14. **Statutory Obligations of the Mandatory & Contractor**

- 14.1 The Mandatory shall notify the Employer of any subcontractor he may wish to perform work on the Employer's premises.
- 14.2 It is hereby recorded that all the terms and provisions contained in this clause shall be equally binding upon the subcontractor prior to the subcontractor commencing with the work.
- 14.3 Without derogating from the generality of this paragraph:
- 14.3.1 The Mandatory shall ensure that training as discussed under Appointments and training, is provided prior to the subcontractor commencing work on the Employer's premises.
- 14.3.2 The Mandatory shall ensure that work performed by the subcontractor is done under strict supervision and discipline enforced, as well as reporting of incidents and / or injuries.
- 14.3.3 The Mandatory shall inform the Employer of any health and safety hazard and/or issue that the subcontractor may have brought to his attention
- 14.3.4 The Mandatory shall inform the Employer of any difficulty encountered regarding compliance by the subcontractor with any health and safety instruction, procedure and/or legal provision applicable to the work the subcontractor performs on the Employer's premises.

14.3.5 The Mandatory hereby undertakes to ensure that the health and safety of any other person on the premises is not endangered by the conduct and/or activities of all his employees while they are on the Employer's premises i.e.

- Horseplay, scuffling, fighting, running or throwing of objects.
- The possession, consumption or offering for consumption to any person of intoxicating liquor or habit-forming drugs.
- Any employee suspected of being under the influence of alcohol or other intoxicating substance will not be allowed to enter or remain on the Employer's premises.
- The tampering with or misuse of any safety equipment installed or provided to any person by an employer or user of machinery.
- The failure to use any safety equipment at a workplace, or in the course of employment or in connection with the use of machinery which is provided by an employer or user of machinery.
- The doing of anything at a workplace or in connection with the use of machinery, calculated to threaten the safety of any person.
- Contractors are required to take all reasonable measures to ensure that the requirements of the Act and the regulation are observed by his employees.
- Contractors must, in the interests of safety, enforce discipline

15. **Security and access**

- 15.1 The Mandatory and his employees shall enter and leave the premises only through the main gate(s) and/or checkpoint(s) designated by the Employer.
- 15.2 The Mandatory shall ensure that employees observe the security rules of the Employer at all times and shall not permit any person who is not directly associated with the work from entering the premises.
- 15.3 The Mandatory and his employees shall not enter any area of the premises that is not directly associated with the work.
- 15.4 The Mandatory shall ensure that all materials, machinery or equipment brought by him-self onto the premises are recorded at the main gate(s) and/or checkpoint(s). A failure to do this may result in a refusal by the Employer to allow the materials, machinery or equipment to be removed from the premises.
- 15.5 The Mandatory shall ensure that no persons carry firearms on the company's or Employer's premises unless written permission has been obtained from the designated person.

16. **Fire precautions and facilities**

- 16.1 The Mandatory shall ensure that an adequate supply of fire-protection and first-aid facilities are provided for the work to be performed on the Employer's premises, save that the parties may mutually make arrangements for the provision of such facilities.
- 16.2 The Mandatory shall further ensure that all his employees are familiar with fire precautions at the premises, which include fire-alarm signals and emergency exits, and that such precautions are adhered to.

17. **Hygiene and cleanliness**

- 17.1 The Mandatory shall ensure that the work site and surrounding area is at all times maintained to a reasonably practicable level of hygiene and cleanliness.
- 17.2 In this regard, no loose materials shall be left lying about unnecessarily and the work site shall be cleared of waste material regularly and on completion of the work.

18. **No nuisance**

- 18.1 The Mandatory shall ensure that neither he nor his employees undertake any activity that may cause environmental impairment or constitute any form of nuisance to the Employer and/or his surroundings.
- 18.2 The Mandatory shall ensure that no hindrance, hazard, annoyance or inconvenience is inflicted on the Employer, another Mandatory or any tenants. Where such situations are unavoidable, the Mandatory shall give prior notice to the Employer.

19. **Intoxication not allowed**

- 19.1 No intoxicating substance of any form shall be allowed on site. Any person suspected of being intoxicated shall not be allowed on the site.
- 19.2 Any person required to take medication shall notify the relevant responsible person thereof, as well as the potential side effects of the medication.

20. **Personal protective equipment**

- 20.1 The Mandatory shall ensure that his responsible persons and employees are provided with adequate personal protective equipment (PPE) for the work they may perform and in accordance with the requirements of General Safety Regulation 2 (1) of the OHS Act.
- 20.2 The Mandatory shall further ensure that his responsible persons and employees wear the PPE issued to them at all material times.

21. **Plant, machinery and equipment**

- 21.1 The Mandatory shall ensure that all the plant, machinery, equipment and/or vehicles he may wish to utilise on the Employer's premises is/are at all times of sound order and fit for the purpose for which it/they is/are intended, and that it/they complies/comply with the requirements of Section 10 of the OHS Act.
- 21.2 In accordance with the provisions of Section 10 (4) of the OHS Act, the Mandatory hereby assumes the liability for taking the necessary steps to ensure that any article or substance that it erects or installs at the premises, or manufactures, sells or supplies to or for the Employer, complies with all the prescribed requirements and will be safe and without risks to health and safety when properly used.
- 21.3 The Mandatory shall further ensure that all plant, machinery and equipment is inspected by a competent person as prescribed by legislation & records thereof retained.

22. **No usage of the Employer's equipment**

The Mandatory hereby acknowledges that his employees shall not be permitted to use any materials, machinery or equipment of the Employer unless the prior written consent of the Employer has been obtained, in which case the Mandatory shall ensure that only those persons authorised to make use of same, have access thereto.

23. **Transport / Vehicles**

- 23.1 The Mandatory shall ensure that all road vehicles used on the premises are in a roadworthy condition and are licensed and insured.

23.2 All drivers shall have relevant and valid driving licences and no vehicle shall carry passengers unless it is specifically designed to do so.

23.3 All drivers shall adhere to the speed limits and road signs on the premises at all times.

23.4 In the event that any hazardous substances are to be transported on the premises, the Mandatory shall ensure that the requirements of the Hazardous Chemical Substances Act of 1995 are complied with at all times.

24. **Confined Spaces**

In the event of having to entering confined spaces, work shall not be performed unless defined through a Specific Confined Space Work Instruction and detailed by the contractor as to the precautionary measures that should be implemented prior to and during the work activities required in confined spaces; i.e.

- Air Sampling
- Air Monitoring
- Personal Air Monitoring
- No employee to enter suffering from claustrophobia
- Permits
- Standby present
- Self-contained breathing apparatus
- Lifeline etc

25. **Clarification**

In the event that the Mandatory requires clarification of any of the terms or provisions of this agreement, he should contact the Public Health, Safety & Wellness Sub-Directorate of the Employer.

26. **Duration of agreement**

This agreement shall remain in force for the duration of the work to be performed by the Mandatory and/or, while any of the Mandatory workmen would be present on the Employer's premises.

27. **Headings**

The headings as contained in this agreement are for reference purposes only and shall not be construed as having any interpretative value in them or as giving any indication as to the meaning of the contents of the paragraphs contained in this agreement.

Thus, done and signed at on

For, and on behalf of the Employer

Date

NAME: _____
SIGNATURE: _____

for, and on behalf of the Mandatory

Date

NAME: _____
SIGNATURE: _____

Witness

Date

NAME: _____
SIGNATURE: _____

ANNEXURE 3 – CR 5(1)(k) PRINCIPAL CONTRACTOR'S APPOINTMENT LETTER

APPOINTMENT AS THE PRINCIPAL CONTRACTOR OF CONSTRUCTION WORK IN TERMS OF CR 5(1)(k) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, (85 OF 1993) AS AMENDED

NAME OF COMPANY:

IN TERMS OF THE ABOVE-MENTIONED ACT:

I/WE having been appointed to ensure full compliance with the

OHS and Regulations, hereby appoint you as the Principal Contractor of

Construction Work in terms of the Construction Regulation 2014, Sub-Regulation 5(1) (k). The appointment is for the

following project: **PLETTENBERG BAY: ROBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM**

YOUR RESPONSIBILITIES ARE TO:

1. Comply with all the duties imposed on a Principal Contractor by the Construction Regulations.
2. Supervise all Construction work on the premises in accordance with CR 8.
3. Ensure compliance with the health and safety specifications prescribed by the client or his agent for this project.
4. Ensure compliance with all the requirements of the National Building Regulations.
5. Ensure that all contractors appointed by yourself, and reporting to you, comply with the requirements as stipulated in the Construction Regulations.
6. Ensure that information and specifications to carry out work safely are communicated to all contractors appointed and reporting to you.
7. To ensure that all records, registers, and documentation are maintained and that all persons appointed to carry out tasks are competent, and possess the necessary resources to complete their tasks effectively and in such manner that the health and safety of persons are not compromised.
8. Report to the client or his agent as per the agreed safety plan on all deviations and progress.

A copy of the said Construction Regulations 2014 of the OHS Act is attached for your convenience and you are to familiarise yourself with the requirements of the Regulations and ensure that all construction work is done in accordance with this Regulation.

This appointment will become effective on the date of acceptance thereof and will be valid until completion of the construction work.

Please confirm your acceptance of this appointment by signing and returning to me the duplicate copy of this letter.

Yours Faithfully

Signature:

Date:.....

Client Representative Designation:.....

ACCEPTANCE

I..... understand the implications of the appointment and confirm my acceptance of this appointment. I have studied the relevant sections of the Act and Regulations and understand what is required of me.

Signed:

Date:

ANNEXURE 4 – PROJECT SPECIFIC BASELINE RISK ASSESSMENT

BASELINE RISK ASSESSMENT							
Project Name:	PLETTENBERG BAY: ROBBERG NATURE RESERVE: UPGRADE OF SEWERAGE SYSTEM	Project number:		Tender Stage		Project Location	
Expected commencement date:	TBC	Expected completion date:		TBC		PLETTENBERG BAY ROBBERG NATURE RESERVE, WESTERN CAPE	
Client:	CAPENATURE	Designer:		UHAMBISO CONSULT (PTY) LTD			
Principle Contractor:	Tender Stage	CHSA		FSG Compliance Specialists			
Area / Task / Activity	Hazard (source, situation or act with a potential for harm in terms of human injury or ill health, or a combination of these)	Risk [combination of the likelihood of an occurrence of a hazardous event or exposure(s) and the severity of injury or ill health that can be caused by the event or exposures(s)]	Potential H&S Risk / Harm (A probability or threat of damage, injury, liability, loss, or any other negative occurrence that is caused by external or internal vulnerabilities, and that may be avoided through pre-emptive action)	Without Controls		Total	List Controls / Mitigation Hierarchy of Controls (Control Type):- Elimination; Substitution Engineering controls; Administrative (signage, warnings, etc.); PPE.
				Likelihood	Consequence		
Employee and sub-contractor Access to Site	Employees	Employees / crew not Medically fit Wrong placement of employees	Occupational illness and Injuries	3	3	13	Pre- employment medicals and periodical medicals, management of identified pre-existing conditions
Employee and sub-contractor Access to Site	Employees	In-competent or unskilled employees being appointed for skilled tasks	Various injuries, including possible fatalities, property damage / loss, harm to public	4	4	21	Appoint suitably qualified & trained employees. Analyse training needs and action
Employee and sub-contractor Access to Site	Employees	Lack of information, training regarding site specific risks resulting in harm	Various injuries, including possible fatalities, property damage / loss, harm to public	3	3	13	Site specific inductions & internal risk conversant training

Employee and sub-contractor Access to Site	Employees	Lack of Supervision resulting in harm	Various injuries, including possible fatalities, property damage / loss, harm to public	5	5	25	Competent and adequate Supervision to be appointed
Employee and sub-contractor Access to Site	Employees	Intoxication	Various injuries, including possible fatalities, property damage / loss, harm to public	5	5	25	Random alcohol testing, medical surveillance procedures, intoxicated persons to be removed from site
Employee and sub-contractor Access to Site	Sub-contractor and sub-contractor employees	Illegal entry to site (i.e. lack of medicals, induction, PPE, training, unsafe tools, illegal or unsafe machinery, etc.)	Various incidents and accidents	3	3	13	All sub-contractor OHS files to be approved prior to access by the Principle Contractor. All Sub-contractors and its employees to adhere to the requirements in terms of the Project specific Health and Safety Specification as issued by the Client. PPE requirements to be communicated to sub-contractors and adhered to at all times
Vehicles Entering site	Drivers & vehicles	Drivers not familiar with site requirements Entering hazardous areas.	Road traffic accident, property loss, harm to public	3	4	18	Site induction, competent & licenced drivers, internal risk conversant training, warning signs, Traffic management plan
Vehicles Entering site	Drivers & vehicles	Drivers not aware of hazards / risks associated with the construction site. Collisions with structures/Hitting pedestrians/Driving into excavations Property Damage/Accidents/Killing pedestrians	Road traffic accident, property loss, harm to public	3	4	18	Visitors induction to include road traffic procedures & plans, warning & road traffic signs, traffic management plan, speed limits, licenced and medically fit drivers

Vehicles Entering site	Drivers & vehicles	Driving in or close to residential areas and public walkthroughs	Hitting / striking public may result in serious to fatal injuries	3	4	18	Formal notification of construction work activities to be communicated with nearby residents and proof to be kept. Visible and appropriate warning signs to be erected. Spotters to be assigned for works involving mobile moving machinery, Visible and rigid barricading to be used to demarcate work zones
Vehicles Entering site	Drivers & vehicles	Unsafe access route to site area. Breakdown of vehicle Injuries / fatalities	Road traffic accidents resulting in minor to fatal injuries, property loss / harm	2	4	14	Traffic management plan and associated warning & road traffic signs
Vehicles Entering site	Drivers & vehicles	Reckless / Irresponsible driving. Exceeding site speed limit. Accidents / hitting pedestrians / colliding with other vehicles, Fatalities/Property damage	Road traffic accidents resulting in minor to fatal injuries, property loss / harm	3	4	18	Site induction, competent & licenced drivers, internal risk conversant training, warning & road traffic signs, establish appropriate access routes, speed limits, random alcohol testing etc.
Site camp establishment	Lifting activities & placement of containers / offices	Failure of lifting equipment or tackle	Objects falling on persons resulting in fatalities, disabling injuries, property damage / loss	3	4	18	Load test certificates for tackle and equipment, correct / adequate equipment and tackle to be used, inspection registers, no by-standers, demarcation of drop zones
Site camp establishment	Lifting activities & placement of containers / offices	Uncontrolled swinging loads	Objects hitting / striking by-standers	3	4	18	guide ropes to be used, appointed signallers, no unauthorized by-standers, demarcation of drop zones, no lifting in windy conditions where wind speed exceeds 34km/h
Site camp establishment	Working with power tools & portable electrical equipment	Incompetent operator	Cuts, lacerations, disabling injuries	4	4	21	Competent operators, competency assessments, training needs analysis, medical surveillance

Site camp establishment	Working with power tools & portable electrical equipment	Hot work activities close to flammables	Fires / explosions	3	4	18	Dedicated storage areas, warning signs, DSTI
Site camp establishment	Working with power tools & portable electrical equipment	Electrical shock	Fatalities	3	4	18	Equipment inspection registers, competent operator, replacement of faulty equipment, no chords / electrical equipment close to water
Site camp establishment	Working with power tools & portable electrical equipment	Faulty equipment	Cuts, lacerations, disabling injuries	3	4	18	Equipment inspection registers, appointed inspectors, replacement of faulty equipment
Earthworks & site clearance	Pedestrians	Mobile moving machinery hitting / striking pedestrians	Fatalities	4	4	21	Competent & medically fit operators, reflective clothing, spotters to be appointed
Earthworks & site clearance	Public roadways	Mobile moving machinery performing work in or close to public roadways resulting in road traffic accidents	Multiple fatalities, property damage or loss	5	5	25	Traffic management plan and associated warning & road traffic signs
Earthworks & site clearance	Mobile moving machinery	Faulty mobile moving machinery & failure of equipment (i.e. brakes, lights, etc.)	Fatalities, property damage / loss	3	4	18	Daily pre-use inspection register, competent inspector and operator, removal / replacement of faulty plant
Earthworks & site clearance	Mobile moving machinery operators	Incompetent or unfit operator	Fatalities, property damage / loss, injury to the public	4	4	21	Competent & licensed (where required) operators, medical surveillance
Earthworks & site clearance	Public / residential areas	Construction activities and mobile moving machinery close to public / residential areas / pedestrian walkthroughs	Fatalities when hit or struck by construction mobile moving machinery	4	4	21	Formal notification of construction work activities to be communicated with nearby residents and proof to be kept. Visible and appropriate warning signs to be erected. Spotters to be assigned for works involving mobile moving machinery, Visible and rigid barricading to be used to demarcate work zones

Earthworks & site clearance	Dust	employees exposure to dust	Occupational illness, aggravation of possible pre-existing health conditions	2	4	14	All employees to undergo pre-employment, periodical and exit medicals. Any restrictions, notes or conditions at noted by the appointed Occupational Health Practitioner to be adhered to. Dust masks to be issued to employees. dust suppression activities to take place during earth works
Earthworks & site clearance	Mobile moving machinery operators	Intoxication	Fatalities, property damage / loss, injury to the public	4	4	21	Random alcohol testing, medical surveillance procedures, intoxicated persons to be removed from site
Earthworks & site clearance	Temperature extremes	Employees exposed to direct sunlight	Heat exhaustion / heat stroke	3	3	13	Regular breaks, covered eating areas and clean drinking water to be provided
Earthworks & site clearance	Natural habitat and overgrown areas	Wildlife, snakes, insects, etc.	Insect bites, snake bites, infections, allergies and various other injuries or related illnesses	3	4	18	Employees involved in this activity to be issued with full length overalls, Safety boots, Leather gloves and eye protection, emergency procedures to be developed and communicated to all employees, approved clean and covered eating areas to be provided
Earthworks & site clearance	Working with chainsaws during clearing activities	Moving parts of chainsaw	Serious cuts / lacerations	3	4	18	All chainsaw operators to be competent. Daily inspection of equipment, personal protective equipment to be issued and work (elbow length gloves, eye and face protection
Earthworks & site clearance	Working with chainsaws during clearing activities	Overexposure to noise emitted by chainsaw	Long term hearing loss	2	4	14	Hearing protection with NRR greater than 25db to be issued and worn by chainsaw operators
Earthworks & site clearance	Working with chainsaws during clearing activities	Flying objects as a result of chainsaw cutting	Eye injuries, various cuts / lacerations ranging from minor to serious	3	4	18	Eye and face protection to be used when working with chainsaws

Identification and exposure of existing services	Existing underground services	Failure to identify existing services, hitting / striking unknown services	Property damage / loss, electrocution	5	4	23	Drawings, cable detector, liaison with stakeholders (Telkom, munelec, etc.)
Identification and exposure of existing services	Public roadways	Work being performed in public road ways / crossings resulting in road traffic accidents or injury to employees	Fatalities, may be multiple fatalities and / or serious injury	4	5	24	Traffic management plan, traffic accommodation measures, flagmen, road traffic signage
Identification and exposure of existing services	Public roadways	Debris as a result of breaking / exposing existing services affecting roadways / N2	Road traffic accidents, multiple fatalities	2	3	9	daily clean-up of debris. Speed limit and warning signs to be erected
Identification and exposure of existing services	Public / residential areas	Construction activities and mobile moving machinery close to public / residential areas / pedestrian walkthroughs	Fatalities when hit or struck by construction mobile moving machinery	4	4	21	Formal notification of construction work activities to be communicated with nearby residents and proof to be kept. Visible and appropriate warning signs to be erected. Spotters to be assigned for works involving mobile moving machinery, Visible and rigid barricading to be used to demarcate work zones
Identification and exposure of existing services	Existing sewers (active)	Exposure to hazardous biological agents (Sewerage) in case of damage to underground services	Various illnesses, viral infections, etc.	2	3	9	Refer to drawings indicating existing services
Identification and exposure of existing services	Excavations	Flooding of excavations due to heavy rain, run-off or ground water	Drowning, excavation collapse due to affect on excavation walls and erosion, resulting in fatal incidents to public	4	4	21	Dewatering of flooded excavations, demarcation and appropriate barricading including visible warning signs, notification and warning to public of construction works - record to be kept, daily excavation inspections by competent person appointed in writing
Excavation, backfilling & compaction	Pedestrians	Mobile moving machinery hitting / striking pedestrians	Fatalities	4	4	21	Competent & medically fit operators, reflective clothing , spotters to be appointed

Excavation, backfilling & compaction	Public roadways	Mobile moving machinery performing work in or close to public roadways resulting in road traffic accidents	Multiple fatalities, property damage or loss	5	5	25	Traffic management plan and associated warning & road traffic signs in accordance with SARTSM
Excavation, backfilling & compaction	Mobile moving machinery	Faulty mobile moving machinery & failure of equipment (i.e. brakes, lights, etc.)	Fatalities, property damage / loss	3	4	18	Daily pre-use inspection register, competent inspector and operator, removal / replacement of faulty plant
Excavation, backfilling & compaction	Mobile moving machinery operators	Incompetent or unfit operator	Fatalities, property damage / loss, injury to the public	4	4	21	Competent & licensed (where required) operators, medical surveillance
Excavation, backfilling & compaction	Public / residential areas	Construction activities and mobile moving machinery close to public / residential areas / pedestrian walkthroughs	Fatalities when hit or struck by construction mobile moving machinery	4	4	21	Formal notification of construction work activities to be communicated with nearby residents and proof to be kept. Visible and appropriate warning signs to be erected. Spotters to be assigned for works involving mobile moving machinery, Visible and rigid barricading to be used to demarcate work zones
Excavation, backfilling & compaction	Dust	employees exposure to dust	Occupational illness, aggravation of possible pre-existing health conditions	2	4	14	All employees to undergo pre-employment, periodical and exit medicals. Any restrictions, notes or conditions at noted by the appointed Occupational Health Practitioner to be adhered to. Dust masks to be issued to employees. dust suppression activities to take place during the works
Excavation, backfilling & compaction	Mobile moving machinery operators	Intoxication	Fatalities, property damage / loss, injury to the public	4	4	21	Random alcohol testing, medical surveillance procedures, intoxicated persons to be removed from site

Excavation, backfilling & compaction	Excavations	Vehicles / people falling into deep excavations / public	Various injuries resulting in minor to major effects including fractures, property damage to public property (i.e. vehicles, off road vehicles) . Depending on depth effects may be fatal	4	4	21	Sufficient and visible barriers surrounding all excavations, sufficient, visible and appropriate excavation warning signs to be erected
Excavation, backfilling & compaction	Excavations	Unsafe access / exit by employees and sub-contractors to and from deep excavations	Fractures, Fatalities, multiple injuries	4	4	21	Secure ladder access or other safe access / exit provision. Access / egress provision within 6m from any point at all times when workers are inside excavations
Excavation, backfilling & compaction	Excavations	Caving embankments, Spoil material, rocks and other objects falling into excavations	Suffocation, fatalities, multiple injuries	4	4	21	Battering, box cutting, sloping or shoring of excavations as required for each section depending on depth, servitude and material. Daily excavation inspections by competent person appointed in writing. No pipes or other objects may be within 1.5m of embankments
Excavation, backfilling & compaction	Existing overhead lines	Hitting / striking of overhead lines	Electrocution, fatality, arc resulting in fires	4	5	24	Clearance distances to be established, warning signage to be posted at overhead line crossings, operators to be trained in safe procedures dealing with crossing of overhead lines, no offloading or tipping of soil allowed under overhead lines
Excavation, backfilling & compaction	Moving parts of mobile moving machinery	Persons working or passing nearby excavators or TLB's being hit / struck by boom	Fatal injuries	3	4	18	Site rules regarding mobile moving machinery / no unauthorized persons within 10m from mobile moving machinery. Spotters to be assigned, high visibility clothing to be issued to all workers
Excavation, backfilling & compaction	Mobile moving machinery operators	Excavator operator not medically fit for work	Various injuries. Minor to fatal	3	4	18	Pre-employment medicals

Excavation, backfilling & compaction	Excavations	Flooding of excavations due to heavy rain, run-off or ground water	Drowning, excavation collapse due to affect on excavation walls and erosion, resulting in fatal incidents to public	4	4	21	Dewatering of flooded excavations, demarcation and appropriate barricading including visible warning signs, notification and warning to public of construction works - record to be kept, daily excavation inspections by competent person appointed in writing
Demolition work	Existing services in existing walls	Failure to identify existing services, hitting / striking unknown services	Property damage / loss, electrocution	2	4	14	Reference to existing and design drawings, Competent Supervision, locating and exposing of existing services
Demolition work	Use of breakers and small plant	overexposure to noise & failure to communicate due to high noise zones	hearing loss, failure to communicate resulting in various injuries	3	4	18	Appropriate hearing protection, daily DSTI, Supervision, medical surveillance
Demolition work	Surrounding persons and other contractors	Debris and falling objects affecting persons working below	Serious to fatal injuries	3	4	18	Demolition zones to be demarcated with warning signs and signallers, demolition plan to be submitted for approval prior to commencement, hard hats to be worn, safety boots to be worn, no by-standers allowed
Demolition work	Use of breakers and small plant	Vibration	Work related upper limb disorders	2	3	9	Regular breaks, operator rotation, medical surveillance
Demolition work	Existing structures	Structural failure	Multiple fatalities, road traffic accident	4	5	24	Demolition plan to be developed, competent demolition work supervisor, regular structural inspection and relevant authorisations from a competent person, demolition zones to be demarcated with warning signs, approved temporary supports to be installed where required

Demolition work	Exposure to unprotected edges and work at heights	Falls from heights	Fatalities, road traffic accidents	5	5	25	Fall protection and fall arrest measures, competent fall protection planner, fall protection plan.
Demolition work	Working with compressed air (where compressors are used)	Rupture, explosions	fatalities	2	4	14	Pressure testing (where relevant) in accordance with pressure equipment regulations, regular inspections
Demolition work	Working with compressed air (where compressors are used)	Uncontrolled flying objects due to couplings dislodging	Serious or disabling injuries	4	4	21	Whip chains to be installed, pre-use inspections
Demolition work	Working with compressed air (where compressors are used)	Overexposure to noise	Hearing loss	3	3	13	Provision of appropriate hearing protection, visible high noise zone signage
Demolition work	Temporary works (should this become relevant)	Structural collapse	Multiple fatalities	3	5	22	Appointment of competent designer and supervisor, temporary works inspection & approval of structures prior to applying loads
Demolition work	Work at heights	Fall from heights	Fatal injuries, falls from heights	3	4	18	No work on ladders allowed during demolition activities
Demolition work	Work at heights	handling/ arranging/lifting /shifting of scaffold components and steel components	Injuries like cut, fall, slip and strain, sprain of body	3	4	18	Fall protection plan, design and approval of suitable scaffolding components, adequate man power, no heights work during adverse weather conditions, good standards for housekeeping
Demolition work	Work at heights	Equipment failure, poor housekeeping	Fatal injuries, falls from heights	2	4	14	Fall protection plan, design and approval of suitable scaffolding components, adequate man power, no heights work during adverse weather conditions, good standards for housekeeping

Demolition work	Work at heights	Unsuitable safe work platforms	Fatal injuries, falls from heights	5	5	25	Where possible preference to be given to safe work platforms such as Elevated work platforms and suitably designed and approved scaffolding as primary fall protection. Fall protection plans to include protection related to both primary safe work platforms and fall arrest measures (i.e. harnesses, lifelines, etc.). Ladders may not be considered as a safe work platform and may not be used for heights exceeding 9m
Demolition work	Work at heights	Inadequate or unstable anchoring devices & lifelines	Fatal injuries, falls from heights	5	5	25	Anchor points and lifelines to be tested to withstand maximum imposed loads. Valid testing will be accepted Where possible preference to be given to safe work platforms such as Elevated work platforms and suitably designed and approved scaffolding as primary fall protection. Fall protection plans to include protection related to both primary safe work platforms and fall arrest measures (i.e. harnesses, lifelines, etc.)
Demolition work	Work at heights	Unsuitable installation of work positioning systems and associated equipment (i.e. lifelines, anchor points, safety harnesses)	Fatal injuries, falls from heights	5	5	25	All arrest equipment and work positioning equipment to be tested and certified as appropriate and inspected at regular intervals prescribed. Anchor points and lifelines to be tested to withstand maximum imposed loads. Valid testing will be accepted Where possible preference to be given to safe work platforms such as Elevated work platforms and suitably designed and approved

								scaffolding as primary fall protection. Fall protection plans to include protection related to both primary safe work platforms and fall arrest measures (i.e. harnesses, lifelines, etc.)
Demolition work	Work at heights	Working with tools, equipment and material at heights	Falling objects resulting in injury to persons below	5	4	23		No work at ground level allowed where overhead work is performed. Overhead work areas to be demarcated with suitable signage. Induction training to include instruction in this regard. All employees to be provided with suitable means to secure any tools or equipment they may be working with while working at heights, kick plates to be installed on scaffolding or other platforms
Demolition work	Operating Elevated Work Platforms	Equipment failure	Fatal incidents	4	4	21		Load testing of EWP's by certified appointed person, Pre-use inspections by competent operator, SWL to be displayed, Operating procedures to be implemented, no overloading
Demolition work	Operating Elevated Work Platforms	Caught in moving parts of EWP	Amputation, nip/pinch points, crushing	2	3	9		Clearance procedures for non-essential personnel, demarcation of EWP safe zones, warning signs, competent operator, where possible type and model of EWP to include single person control and manoeuvring
Demolition work	Operating Elevated Work Platforms	Items falling from EWP onto persons below	Head injuries, various injuries,	2	4	14		Toolbelts to be issued, demarcation and warning signs for overhead work
Removal of hard rock (using Hydraulic Excavator Breaker)	Hydraulic excavator breaker	Noise	Noise induced hearing loss	2	3	9		Persons within 5m of activity to wear hearing protection with NRR greater than or equal to 25db. No person allowed to work within 10m of activity

Removal of hard rock (using Hydraulic Excavator Breaker)	Hydraulic excavator breaker	Moving parts of Hydraulic excavator breaker	Hand / finger injuries, resulting in crushing accidents	1	4	10	Only qualified mechanics to perform repairs, fitment or maintenance on hydraulic breaker. No person allowed within 10m when breaking activities are in progress
Construction of concrete structure	Mixing of concrete	Concrete contact with employee skin	Leading to skin irritations and rashes	2	4	14	Employees to be provided with required PPE, Overalls, gloves and gum boots. Work to be done under supervision to ensure compliance
Construction of concrete structure	Mixing of concrete	Inhalation of cement particles	Lung diseases	4	4	21	Employees to be provided with required PPE, dust mask FFP 2. Employees to receive proper training.
Construction of concrete structure	Casting of concrete	Concrete spillages	Leading to environmental damage	2	4	14	Concrete mixing to be done on sheeting. Spillages to be cleaned ASAP and rehabilitation to be done on the area. Spill kit to be available on site
Construction of concrete structure	Casting of concrete	Concrete splashes, contact with employee's eyes	Leading to eye infections/irritations	2	4	14	Employees to be provided with required PPE, face shield or safety glasses.
Lifting & rigging (during mechanical & electrical installations in pump stations)	suspended loads	Failure of lifting equipment or tackle	Fatalities, multiple injuries, property damage	2	4	14	Load testing of lifting equipment and tackle. Trained operators, pre-use inspections. Wall lifting equipment and tackle shall be suitable and capable of withstanding loads. 3 Monthly inspections for lifting tackle by a competent person and annual load testing for lifting tackle and

								equipment by appointed competent person. Lifting areas to be demarcated, no persons will be allowed in the drop-zone of suspended loads unless authorized. Guide ropes to be used. Hard hats to be worn
Lifting & rigging (during mechanical & electrical installations in pump stations)	suspended loads	Uncontrolled swinging loads	Swinging loads hitting / striking nearby persons, crushing.	2	3	9		No lifting activities allowed where wind exceeds 34km/h, guide ropes to be used, competent signallers to be assigned. Suitable gloves to be provided. Section steel components for safe lifting, maintain good housekeeping
Lifting & rigging (during mechanical & electrical installations in pump stations)	Handling of suspended loads during placement, shifting, loading, unloading and arrangements of steel components	handling/ arranging/lifting /shifting of scaffold components and steel components	Injuries like cut, fall, slip and strain, sprain of body	2	4	14		Adequate manpower, guide ropes, safe work structures, suitable man-lifts and lifting equipment including tackle. No lifting during adverse weather conditions. Competent signallers to be assigned. Suitable lifting tackle and equipment that has been tested and inspected at required intervals. Consider on-ground assembly where possible to reduce manual handling / arranging / shifting activities
Pipe Work activities	Suspended loads & lifting equipment	Falling loads	Fatalities, multiple injuries, property damage	4	4	21		Competent lifting equipment operator, load tested lifting gear, guide ropes, trained signallers to be assigned. No unauthorised persons allowed. No person allowed in drop-zones. Appropriate hand signals

Pipe Work activities	Excavations	Caving embankments, Spoil material, rocks and other objects falling into excavations	Suffocation, fatalities, multiple injuries	4	4	21	Battering, box cutting, sloping or shoring of excavations as required for each section depending on depth, servitude and material. Daily excavation inspections by competent person appointed in writing. No pipes or other objects may be within 1.5m of embankments
Pipe Work activities	Excavations	Flooding of excavations due to heavy rain, run-off or ground water	Drowning, excavation collapse due to affect on excavation walls and erosion, resulting in fatal incidents to public	4	4	21	Dewatering of flooded excavations, demarcation and appropriate barricading including visible warning signs, notification and warning to public of construction works - record to be kept, daily excavation inspections by competent person appointed in writing
Pipe Work activities	Existing overhead lines	Hitting / striking of overhead lines	Electrocution, fatality, arc resulting in fires	4	5	24	Clearance distances to be established, warning signage to be posted at overhead line crossings, operators to be trained in safe procedures dealing with crossing of overhead lines, no offloading or tipping of soil allowed under overhead lines
Pipe Work activities	Lifting machinery	Lifting machinery toppling over during lifting activities	Fatalities, multiple injuries, property damage	2	4	14	Appropriate and approved lifting equipment / machinery to be used. No lifting allowed with TLB's. Where lifting is undertaken with Excavator, the machine shall be of sufficient capacity to handle the load. Lifting to be undertaken on level surfaces only

Pipe Work activities	Lifting machinery	Failure of lifting equipment or tackle	Fatalities, multiple injuries, property damage	2	4	14	Load testing of lifting equipment and tackle. Trained operators, pre-use inspections. Where excavators / TLB's are used for pipelaying, the responsible person shall ensure that it is capable of withstanding loads and that an approved lifting lug has been installed
Pipe Work activities	Suspended loads	Uncontrolled swinging loads	Swinging loads hitting / striking nearby persons	2	3	9	No lifting activities allowed where wind exceeds 34km/h, guide ropes to be used, competent signallers to be assigned
Pipe Work activities	Fitting pipeline	Pinch points when fitting pipeline	Crushing injuries, lacerations, hand injury	2	3	9	Induction training on associated hazards for all employees and sub-contractors, All employees involved to be issued with leather gloves, safe procedures to be communicated. Guide ropes to be used
Working with compactors	Dust	Dust pollution, Disturbance of nearby community	Disturbance, lack of visibility, health effects in cases of prolonged exposure	4	3	17	Dust suppression, watering of roads
Working with compactors	vibration	prolonged exposure to vibration	Work related limb disorders	2	3	9	Regular breaks, operator rotation, medical surveillance
Working in the vicinity of residential areas, public roads and walkthroughs	Pedestrians and public	Pedestrians and public entering work zones	Fatality or serious injury to public	5	5	25	Sufficient and suitable excavation barriers and appropriate warning signs, written notice of construction work to nearby residents. Installation of relevant temporary road traffic measures at road crossings in accordance with the South African Road Traffic Signs Manual

Working in the vicinity of residential areas, public roads and walkthroughs	Public roadways	Work being performed in public road ways / crossings resulting in road traffic accidents or injury to employees	Fatalities, may be multiple fatalities and / or serious injury	4	5	24	Traffic management plan, traffic accommodation measures, flagmen, road traffic signage, monitoring of peak periods and implementation of associated controls
Working with Portable electrical equipment	Employees	Incompetent employees,	Multiple injuries, electrocution, lacerations	3	4	18	Competent operators
Working with Portable electrical equipment	Cutting / Grinding sparks	Fires	Property damage / loss, burns	3	5	22	Welding screens, demarcated hazardous chemical stores with signage, hot work permits
Working with Portable electrical equipment	Cutting / Grinding sparks	Burns, sparks in eyes	Loss of eye sight	3	3	13	Face shields, safety goggles, competent operators
Working with Portable electrical equipment	Surrounding persons	Burns, sparks in eyes	Loss of eye sight	3	3	13	No by standers, safety goggles, operators, screens
Working with Portable electrical equipment	Incorrect / unsafe use of equipment	Electric shock, lacerations, multiple injuries	Multiple injuries, electrocution, lacerations	3	4	18	Method statements, risk assessments, competent operators
Working with Portable electrical equipment	Taking unsafe position	Multiple injuries, lacerations, abrasions	Multiple injuries, electrocution, lacerations	3	4	18	Method statements, risk assessments, competent operators
Working with Portable electrical equipment	Unsafe tools and equipment	Multiple injuries, shocks, lacerations	Multiple injuries, electrocution, lacerations	3	4	18	Inspection registers
Working with Portable electrical equipment	Incorrect / unsafe assembly	Multiple injuries, lacerations, abrasions	Multiple injuries, electrocution, lacerations	3	4	18	Competent operators
Working on Step ladders	Ladders	Working on damaged step ladder. Falling from height,	Multiple injuries.	3	4	18	Pre-use checks and monthly checks
Working on Step ladders	Ladders	Ladder not lashed at highest point. Falling from the ladder,	Multiple injuries.	3	4	18	Toolbox talk training about ladder safety

Working on Step ladders	Ladders	Incorrect angle of ladder to work surface. Difficulty in climbing leading to falling, Falling of ladder	Multiple injuries	3	4	18	Toolbox talk training about ladder safety
Working on Step ladders	Ladders	Ladder not held at bottom by assistant.	Ladder slipping/moving/falling leading to a fall by user, Falling of ladder	3	4	18	Toolbox talk training about ladder safety
Working on Step ladders	Tools & equipment	Carrying tools/equipment or material up a ladder.	Losing three point contact leading to falls, Falling of ladder	3	4	18	Toolbox talk training about ladder safety
Working on Step ladders	Ladders	Ladder not extending 900mm above landing surface.	Difficulty in climbing on and off the ladder, Falling of ladder	3	4	18	Toolbox talk training about ladder safety
Facilities & all areas	Housekeeping, slippery surfaces	Slipping & tripping hazards	Multiple injuries, sprains & strains	2	3	9	Hygiene facility checklist, cleaners
Facilities & all areas	Lack of provision of hygiene facilities	Poor hygiene	Occupational illness	1	3	6	Provision of suitable eating areas and ablution within a maximum of 30m from the point of activity along the route of the project
Facilities & all areas	Cleaning chemicals	Adverse health effects	Occupational illness	2	3	9	MSDS sheets & training, PPE
Facilities & all areas	Stacking & storage	Falling objects, tripping / slipping, property damage	Multiple injuries, sprains & strains	2	3	9	Hygiene facility checklist, cleaners
Facilities & all areas	Ergonomics	Poor posture	Sprains / strains, Multiple injuries	2	3	9	Provision of proper chairs and desks
Facilities & all areas	Poor illumination	fatigue, stress, reduced vision sharpness	fatigue, stress, reduced vision sharpness	2	3	9	provision of sufficient lighting, approvals and method statements for nightwork
Facilities & all areas	Exposure to elements and environment	Sun, wind, temperature, emissions	Skin cancer, heat exhaustion, lung cancer	2	3	9	Long sleeved overalls, awareness topics
External influences	Strikes / labour / community unrest	Assault - injuries	Fatalities, property loss / damage, fires	4	5	24	Site Snr. Staff to monitor, community liaison, emergency procedure to be followed (employees to be removed to a safe place)
External influences	Working in public roads and other public areas & night work	Hit / struck by vehicles, multiple incidents caused by construction activities, injury to public etc	multiple incidents caused by construction activities, injury to public etc	4	5	24	Traffic management plan and public safety management plan for all works in public areas, road and warning signage, trained flag persons, illuminates to be installed on barriers during night times, reflective signage

Manual handling & manual work	Ergonomics	Use of hands – strain on muscles and back	Back and other muscular injury or disease	2	2	5	Awareness topics, assessment of loads and implementation of appropriate procedures
Manual handling & manual work	Hand tools	small portable electrical tools- manual handling- sharp articles – electricity	cuts, abrasions, lacerations	2	2	5	Provision of appropriate PPE, inspection registers, suitable tools to be provided
Terracing and shaping, paving, gravelling, minor road works	Pedestrians	Mobile moving machinery hitting / striking pedestrians	Fatalities	4	4	21	Competent & medically fit operators, reflective clothing , spotters to be appointed
Terracing and shaping, paving, gravelling, minor road works	Public roadways	Mobile moving machinery performing work in or close to public roadways resulting in road traffic accidents	Multiple fatalities, property damage or loss	5	5	25	Traffic management plan, accommodation of traffic and associated warning & road traffic signs in accordance with SARTSM
Terracing and shaping, paving, gravelling, minor road works	Mobile moving machinery	Faulty mobile moving machinery & failure of equipment (i.e. brakes, lights, etc.)	Fatalities, property damage / loss	3	4	18	Daily pre-use inspection register, competent inspector and operator, removal / replacement of faulty plant
Terracing and shaping, paving, gravelling, minor road works	Mobile moving machinery operators	Incompetent or unfit operator	Fatalities, property damage / loss, injury to the public	4	4	21	Competent & licensed (where required) operators, medical surveillance
Terracing and shaping, paving, gravelling, minor road works	Public / residential areas	Construction activities and mobile moving machinery close to public / residential areas / pedestrian walkthroughs	Fatalities when hit or struck by construction mobile moving machinery	4	4	21	Formal notification of construction work activities to be communicated with nearby residents and proof to be kept. Visible and appropriate warning signs to be erected. Spotters to be assigned for works involving mobile moving machinery, Visible and rigid barricading to be used to demarcate work zones

Terracing and shaping, paving, gravelling, minor road works	Dust	employees exposure to dust	Occupational illness, aggravation of possible pre-existing health conditions	2	4	14	All employees to undergo pre-employment, periodical and exit medicals. Any restrictions, notes or conditions at noted by the appointed Occupational Health Practitioner to be adhered to. Dust masks to be issued to employees. dust suppression activities to take place during the works
Terracing and shaping, paving, gravelling, minor road works	Mobile moving machinery operators	Intoxication	Fatalities, property damage / loss, injury to the public	4	4	21	Random alcohol testing, medical surveillance procedures, intoxicated persons to be removed from site
Terracing and shaping, paving, gravelling, minor road works	Excavations	Vehicles / people falling into deep excavations / public	Various injuries resulting in minor to major effects including fractures, property damage to public property (i.e. vehicles, off road vehicles) . Depending on depth effects may be fatal	4	4	21	Sufficient and visible barriers surrounding all excavations, sufficient, visible and appropriate excavation warning signs to be erected
Terracing and shaping, paving, gravelling, minor road works	Existing overhead lines	Hitting / striking of overhead lines	Electrocution, fatality, arc resulting in fires	4	5	24	Clearance distances to be established, warning signage to be posted at overhead line crossings, operators to be trained in safe procedures dealing with crossing of overhead lines, no offloading or tipping of soil allowed under overhead lines
Terracing and shaping, paving, gravelling, minor road works	Moving parts of mobile moving machinery	Persons working or passing nearby excavators or TLB's being hit / struck by boom	Fatal injuries	3	4	18	Site rules regarding mobile moving machinery / no unauthorized persons within 10m from mobile moving machinery. Spotters to be assigned, high visibility clothing to be issued to all workers
Terracing and shaping, paving, gravelling, minor road works	Mobile moving machinery operators	Excavator operator not medically fit for work	Various injuries. Minor to fatal	3	4	18	Pre-employment medicals

Terracing and shaping, paving, gravelling, minor road works	Incorrect / unsafe use of portable electrical equipment	Electric shock, lacerations, multiple injuries	Multiple injuries, electrocution, lacerations	3	4	18	Method statements, risk assessments, competent operators
Terracing and shaping, paving, gravelling, minor road works	Taking unsafe position when operating portable electrical equipment	Multiple injuries, lacerations, abrasions	Multiple injuries, electrocution, lacerations	3	4	18	Method statements, risk assessments, competent operators
Terracing and shaping, paving, gravelling, minor road works	Ergonomics / Manual handling of heavy loads	Incorrect manual handling practices	musculoskeletal injuries, trips / slips, falling loads, hand injuries	2	3	9	No manual handling of loads greater than 15kg/s per person. Awareness topics. Provision of mechanical means for lifting practices exceeding minimum limits for manual handling
Terracing and shaping, paving, gravelling, minor road works	Offloading of material (pavers, kerbs, etc.)	Failure of lifting equipment or tackle	Objects falling on persons resulting in fatalities, disabling injuries, property damage / loss	3	4	18	Load test certificates for tackle and equipment, correct / adequate equipment and tackle to be used, inspection registers, no by-standers, demarcation of drop zones
Terracing and shaping, paving, gravelling, minor road works	Pedestrians	Mobile moving machinery hitting / striking pedestrians	Fatalities	4	4	21	Competent & medically fit operators, reflective clothing, spotters to be appointed
Terracing and shaping, paving, gravelling, minor road works	Public roadways	Mobile moving machinery performing work in or close to public roadways resulting in road traffic accidents	Multiple fatalities, property damage or loss	5	5	25	Traffic management plan, accommodation of traffic and associated warning & road traffic signs in accordance with SARTSM
Terracing and shaping, paving, gravelling, minor road works	Mobile moving machinery	Faulty mobile moving machinery & failure of equipment (i.e. brakes, lights, etc.)	Fatalities, property damage / loss	3	4	18	Daily pre-use inspection register, competent inspector and operator, removal / replacement of faulty plant
Terracing and shaping, paving, gravelling, minor road works	Mobile moving machinery operators	Incompetent or unfit operator	Fatalities, property damage / loss, injury to the public	4	4	21	Competent & licensed (where required) operators, medical surveillance

Terracing and shaping, paving, gravelling, minor road works	Public / residential areas	Construction activities and mobile moving machinery close to public / residential areas / pedestrian walkthroughs	Fatalities when hit or struck by construction mobile moving machinery	4	4	21	Formal notification of construction work activities to be communicated with nearby residents and proof to be kept. Visible and appropriate warning signs to be erected. Spotters to be assigned for works involving mobile moving machinery, Visible and rigid barricading to be used to demarcate work zones
Terracing and shaping, paving, gravelling, minor road works	Dust	employees exposure to dust	Occupational illness, aggravation of possible pre-existing health conditions	2	4	14	All employees to undergo pre-employment, periodical and exit medicals. Any restrictions, notes or conditions at noted by the appointed Occupational Health Practitioner to be adhered to. Dust masks to be issued to employees. dust suppression activities to take place during the works
Terracing and shaping, paving, gravelling, minor road works	Mobile moving machinery operators	Intoxication	Fatalities, property damage / loss, injury to the public	4	4	21	Random alcohol testing, medical surveillance procedures, intoxicated persons to be removed from site
Terracing and shaping, paving, gravelling, minor road works	Excavations	Vehicles / people falling into deep excavations / public	Various injuries resulting in minor to major effects including fractures, property damage to public property (i.e. vehicles, off road vehicles) . Depending on depth effects may be fatal	4	4	21	Sufficient and visible barriers surrounding all excavations, sufficient, visible and appropriate excavation warning signs to be erected
Terracing and shaping, paving, gravelling, minor road works	Existing overhead lines	Hitting / striking of overhead lines	Electrocution, fatality, arc resulting in fires	4	5	24	Clearance distances to be established, warning signage to be posted at overhead line crossings, operators to be trained in safe procedures dealing with crossing of overhead lines, no

							offloading or tipping of soil allowed under overhead lines
Terracing and shaping, paving, gravelling, minor road works	Moving parts of mobile moving machinery	Persons working or passing nearby excavators or TLB's being hit / struck by boom	Fatal injuries	3	4	18	Site rules regarding mobile moving machinery / no unauthorized persons within 10m from mobile moving machinery. Spotters to be assigned, high visibility clothing to be issued to all workers
Terracing and shaping, paving, gravelling, minor road works	Mobile moving machinery operators	Excavator operator not medically fit for work	Various injuries. Minor to fatal	3	4	18	Pre-employment medicals
Terracing and shaping, paving, gravelling, minor road works	Incorrect / unsafe use of portable electrical equipment	Electric shock, lacerations, multiple injuries	Multiple injuries, electrocution, lacerations	3	4	18	Method statements, risk assessments, competent operators
Terracing and shaping, paving, gravelling, minor road works	Taking unsafe position when operating portable electrical equipment	Multiple injuries, lacerations, abrasions	Multiple injuries, electrocution, lacerations	3	4	18	Method statements, risk assessments, competent operators
Terracing and shaping, paving, gravelling, minor road works	Ergonomics / Manual handling of heavy loads	Incorrect manual handling practices	musculoskeletal injuries, trips / slips, falling loads, hand injuries	2	3	9	No manual handling of loads greater than 15kg/s per person. Awareness topics. Provision of mechanical means for lifting practices exceeding minimum limits for manual handling
Terracing and shaping, paving, gravelling, minor road works	Offloading of material	Failure of lifting equipment or tackle	Objects falling on persons resulting in fatalities, disabling injuries, property damage / loss	3	4	18	Load test certificates for tackle and equipment, correct / adequate equipment and tackle to be used, inspection registers, no by-standers, demarcation of drop zones
Terracing and shaping, paving, gravelling, minor road works	Exposure to hazardous chemical substances	Uncontrolled exposure to hazardous chemical substances	Occupational illness	2	3	9	MSDS sheets & training, PPE

Terracing and shaping, paving, gravelling, minor road works	Pedestrians	Mobile moving machinery hitting / striking pedestrians	Fatalities	4	4	21	Competent & medically fit operators, reflective clothing , spotters to be appointed
Terracing and shaping, paving, gravelling, minor road works	Public roadways	Mobile moving machinery performing work in or close to public roadways resulting in road traffic accidents	Multiple fatalities, property damage or loss	5	5	25	Traffic management plan, accommodation of traffic and associated warning & road traffic signs in accordance with SARTSM
Terracing and shaping, paving, gravelling, minor road works	Suspended loads & lifting equipment	Falling loads	Fatalities, multiple injuries, property damage	4	4	21	Competent lifting equipment operator, load tested lifting gear, guide ropes, trained signallers to be assigned. No unauthorised persons allowed. No person allowed in drop-zones. Appropriate hand signals
Terracing and shaping, paving, gravelling, minor road works	Excavations	Caving embankments, Spoil material, rocks and other objects falling into excavations	Suffocation, fatalities, multiple injuries	4	4	21	Battering, box cutting, sloping or shoring of excavations as required for each section depending on depth, servitude and material. Daily excavation inspections by competent person appointed in writing. No pipes or other objects may be within 1.5m of embankments
Terracing and shaping, paving, gravelling, minor road works	Excavations	Flooding of excavations due to heavy rain, run-off or ground water	Drowning, excavation collapse due to affect on excavation walls and erosion, resulting in fatal incidents to public	4	4	21	Dewatering of flooded excavations, demarcation and appropriate barricading including visible warning signs, notification and warning to public of construction works - record to be kept, daily excavation inspections by competent person appointed in writing

Terracing and shaping, paving, gravelling, minor road works	Existing overhead lines	Hitting / striking of overhead lines	Electrocution, fatality, arc resulting in fires	4	5	24	Clearance distances to be established, warning signage to be posted at overhead line crossings, operators to be trained in safe procedures dealing with crossing of overhead lines, no offloading or tipping of soil allowed under overhead lines
Terracing and shaping, paving, gravelling, minor road works	Lifting machinery	Lifting machinery toppling over during lifting activities	Fatalities, multiple injuries, property damage	2	4	14	Appropriate and approved lifting equipment / machinery to be used. No lifting allowed with TLB's. Where lifting is undertaken with Excavator, the machine shall be of sufficient capacity to handle the load. Lifting to be undertaken on level surfaces only
Terracing and shaping, paving, gravelling, minor road works	Lifting machinery	Failure of lifting equipment or tackle	Fatalities, multiple injuries, property damage	2	4	14	Load testing of lifting equipment and tackle. Trained operators, pre-use inspections. Where excavators / TLB's are used for pipelaying, the responsible person shall ensure that it is capable of withstanding loads and that an approved lifting lug has been installed
Terracing and shaping, paving, gravelling, minor road works	Suspended loads	Uncontrolled swinging loads	Swinging loads hitting / striking nearby persons	2	3	9	No lifting activities allowed where wind exceeds 34km/h, guide ropes to be used, competent signallers to be assigned
Mechanical installations	Suspended loads & lifting equipment	Falling loads	Fatalities, multiple injuries, property damage	4	4	21	Competent lifting equipment operator, load tested lifting gear, guide ropes, trained signallers to be assigned. No unauthorised persons allowed. No person allowed in drop-zones. Appropriate hand signals
Mechanical installations	Excavations	Caving embankments, Spoil material, rocks and other objects falling into excavations	Suffocation, fatalities, multiple injuries	4	4	21	Battering, box cutting, sloping or shoring of excavations as required for each section depending on depth, servitude and material. Daily excavation

							inspections by competent person appointed in writing.
Mechanical installations	Excavations	Flooding of excavations due to heavy rain, run-off or ground water	Drowning, excavation collapse due to affect on excavation walls and erosion, resulting in fatal incidents to public	4	4	21	Dewatering of flooded excavations, demarcation and appropriate barricading including visible warning signs, notification and warning to public of construction works - record to be kept, daily excavation inspections by competent person appointed in writing
Mechanical installations	Existing overhead lines	Hitting / striking of overhead lines	Electrocution, fatality, arc resulting in fires	4	5	24	Clearance distances to be established, warning signage to be posted at overhead line crossings, operators to be trained in safe procedures dealing with crossing of overhead lines, no offloading or tipping of soil allowed under overhead lines
Mechanical installations	Lifting machinery	Lifting machinery toppling over during lifting activities	Fatalities, multiple injuries, property damage	2	4	14	Appropriate and approved lifting equipment / machinery to be used. No lifting allowed with TLB's. Where lifting is undertaken with Excavator, the machine shall be of sufficient capacity to handle the load. Lifting to be undertaken on level surfaces only
Mechanical installations	Lifting machinery	Failure of lifting equipment or tackle	Fatalities, multiple injuries, property damage	2	4	14	Load testing of lifting equipment and tackle. Trained operators, pre-use inspections. Where excavators / TLB's are used for pipelaying, the responsible person shall ensure that it is capable of withstanding loads and that an approved lifting lug has been installed

Mechanical installations	Suspended loads	Uncontrolled swinging loads	Swinging loads hitting / striking nearby persons	2	3	9	No lifting activities allowed where wind exceeds 34km/h, guide ropes to be used, competent signallers to be assigned
Mechanical installations	Fitting pipes and fittings	Pinch points when fitting pipeline	Crushing injuries, lacerations, hand injury	2	3	9	Induction training on associated hazards for all employees and sub-contractors, All employees involved to be issued with leather gloves, safe procedures to be communicated. Guide ropes to be used
Welding & cutting	Welding and cutting equipment	Operating welding & cutting equipment	Explosions, serious burns, fatalities, environmental harm, property loss	3	5	22	Suitably equipped work areas. Competent welders, Equipment inspection registers, approved equipment, fire fighting equipment, hot work permits
Welding & cutting	Flammable sources	Working near flammable persons	Explosions, serious burns, fatalities, environmental harm, property loss	3	5	22	Personal protective equipment, fire extinguishers, hot work permits
Welding & cutting	Welders & operators	Incompetent welders	Explosions, serious burns, fatalities, environmental harm, property loss	3	5	22	Competent welder, legal appointments, planned task observation, hot work permits
Welding & cutting	Welding and cutting equipment	Unsuitable or unsafe welding / cutting equipment	Explosions, serious burns, fatalities, environmental harm, property loss	3	5	22	Equipment inspection register, competent welders, hot work permits
Welding & cutting	Flammable sources	Flammable sources	Explosions, serious burns, fatalities, environmental harm, property loss	3	5	22	Designated hazardous chemical stores, flammables stored in isolation with warning signs displayed. Flammable stores banded and ventilated, hot work permits. Suitably equipped work areas
Stacking & storage	Poor stacking and storage / housekeeping	Falling objects, tripping / slipping, property damage	Multiple injuries	4	3	17	Appointed stacking and storage responsible person, monthly audits, inspections by safety

							officer, adequate storage containers
Stacking & storage	Storage of hazardous chemicals	Hazardous chemical substances, fumes, fires, explosions	Fatalities, smoke inhalation, fires, explosions	3	4	18	Ventilated, banded Hazchem stores, warning signs, dedicated smoking areas, MSDS'
Stacking & storage	Shelves and cupboards	Hazardous chemical substances, fumes, fires, explosions	Fires, explosion, adverse effect on wildlife and environment	3	4	18	Ventilated, banded Hazchem stores, warning signs, dedicated smoking areas, MSDS'
Stacking & storage	Manual handling heavy loads	Falling objects, hit / struck with, nip / pinch points, heavy items, awkward loads	Back, hand & foot injuries	4	3	17	Ergonomics awareness topics, proper stacking and storage, safe lifting practices, adequate staff to assist, supervision
Electrical Installations	High voltage cables	Live electricity wires too close	Electrocution	5	4	23	Isolation & lockout to be in place prior removal of overhead lines. Permit to be obtain from electrical supplier in order to ensure that electricity has been shut off. Inspect all areas for electrical wiring, refer to surveys of existing services, inspect extension and electrical cords prior to use. Safe routing of all cables. Remove damaged cables
Electrical Installations	Working at heights	Working with tools, equipment and material at heights	Falling objects resulting in injury to persons below	5	4	23	No work at ground level allowed where overhead work is performed. Overhead work areas to be demarcated with suitable signage. Induction training to include instruction in this regard. All employees to be provided with suitable means to secure any tools or equipment they may be working with while working at heights

Electrical Installations	Working at heights	Unsuitable installation of work positioning systems and associated equipment (i.e. lifelines, anchor points, safety harnesses)	Fatal injuries, falls from heights	5	5	25	All arrest equipment and work positioning equipment to be tested and certified as appropriate and inspected at regular intervals prescribed.
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