Eskom

NEC3 Engineering and Construction

Short Contract (ECSC3)

A contract between **Eskom Holdings SOC Ltd (Reg No. 2002/015527/30)**

and

for **Installation of Elevated Drain at the Ash dam**

Contents: Compiled in accordance with CIDB Standard for Uniformity in Construction Procurement (May 2010 amendments) **Page No.**

C1 Agreements & Contract Data

C1.1 Form of Offer and Acceptance

Offer

The Employer, identified in the Acceptance page signature block on the next page, has solicited offers to enter into a contract for the procurement of:

Title of the Contract

The tenderer, identified in the signature block below, having examined the documents listed in the Tender Data and addenda thereto as listed in the Tender 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 part of this Form of Offer and Acceptance 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 exclusive of VAT is	**R**
Value Added Tax @ 15% is	**R**
The offered total of the Prices inclusive of VAT is	**R**
(in words)	

This Offer may be accepted by the Employer by signing the form of Acceptance overleaf and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the Contractor in the conditions of contract identified in the Contract Data.

Signature(s) .....

Name(s) .....

Capacity .....

For the tenderer: .....
(Insert name and address of organisation)

.....

Name & signature of witness .....

Date .....

Tenderer's CIDB registration number: .....

Acceptance

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the tenderer's Offer. In consideration thereof, the Employer 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 Employer 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 1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

Part 2 Pricing Data

Part 3 Scope of Work: Works Information

Part 4 Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of Offer and Acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be signed by the duly authorised representative(s) for both parties.

The tenderer shall within one week of receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the Contract Data at, or just after, the date this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the tenderer receives one fully completed and signed copy of this document, including the Schedule of Deviations (if any) together with all the terms of the contract as listed above.

Signature(s) .....

Name(s) .....

Capacity .....

for the Employer .....
(Insert name and address of organisation)

.....

Name & signature of witness .....

Date .....

Note: If a tenderer wishes to submit alternative tender offers, further copies of this document may be used for that purpose, duly endorsed, 'Alternative Tender No. _____ '

Schedule of Deviations

Note:

1. To be completed by the Employer prior to award of contract. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

No.	Subject	Details
1	**[●]**	**[●]**
2	**[●]**	**[●]**
3	**[●]**	**[●]**
4	**[●]**	**[●]**
5	**[●]**	**[●]**
6	**[●]**	**[●]**
7	**[●]**	**[●]**

By the duly authorised representatives signing this Schedule of Deviations below, the Employer and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto 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 Employer 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 Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

	For the tenderer:	**For the Employer**
Signature	.....	.....
Name	.....	.....
Capacity	.....	.....
On behalf of	..... *(Insert name and address of organisation)*	..... *(Insert name and address of organisation)*
Name & signature of witness	.....	.....
Date	.....	.....

C1.2 Contract Data

Data provided by the *Employer*

Completion of the data in full is essential to create a complete contract.

Clause	Statement	Data
	GENERAL	
10.1	The *Employer* is (Name):	**Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state-owned company incorporated in terms of the company laws of the Republic of South Africa**
	Address	**Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg**
10.1 & 14.4	The *Employer*'s representative to whom the *Employer* in terms of clause 14.4 delegates his actions[1] is (Name):	**Mlungisi Mfeka**
	Address	**Duvha Power Station PO Box 2199**
	Tel No.	**013 691 6520**
	Fax No.	**N/A**
	E-mail address	**mfekaml@eskom.co.za**
11.2(11)	The *works* are	**Installation of Elevated Drain at the Ash dam**
11.2(13)	The Works Information is in	**the document called 'Works Information' in Part 3 of this contract.**
11.2(12)	The Site Information is in	**the document called 'Site Information' in Part 4 of this contract.**
11.2(12)	The *site* is	**Eskom Duvha Ash Dam**
30.1	The *starting date* is.	**01 August 2026**
11.2(2)	The *completion date* is.	**31 July 2027**
13.2	The *period for reply* is	**4 days**
40	The *defects date* is	**52 weeks after Completion**
41.3	The *defect correction period* is	**2 weeks after notification of defect**
50.1	The *assessment day* is the	**24th of each month.**
50.6	The retention is	**10%**
51.2	The delay damage	**R 3000 per calendar day to the maximum of 10% of the contract value, aligned to the acceptance baseline program**

[1] Except those actions which can only be done by the *Employer* as a Party to the contract.

80.1	The *Contractor* is not liable to the *Employer* for loss of or damage to the *Employer*'s property in excess of	**the amount of the deductibles relevant to the event**
	Does the United Kingdom Housing Grants, Construction and Regeneration Act (1996) apply?	**No**
93.1	The *Adjudicator* is	**the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).**
	Address	**[●]**
	Tel No.	**[●]**
	Fax No.	**[●]**
	e-mail	**[●]**
93.2(2)	The *Adjudicator nominating body* is:	**the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body**
93.4	The *tribunal* is:	**arbitration.**
	The *arbitration procedure* is	**the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.**
	The place where arbitration is to be held is	**[●] South Africa**
	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	**the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.**

The *conditions of contract* are the NEC3 Engineering and Construction Short Contract (April 2013)[2][3] and the following additional conditions Z1 to Z11 which always apply:

Z1 Cession delegation and assignment

Z1.1 The *Contractor* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer.*

Z1.2 Notwithstanding the above, the *Employer* may on written notice to the *Contractor* cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its

[2] If June 2005 Edition applies, delete April 2013 and insert June 2005
[3] State whether attached as a 'PDF' file in terms of Eskom's licence, or to be obtained from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.

Z2 Change of Broad Based Black Economic Empowerment (B-BBEE) status

Z2.1 Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor*'s B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.

Z2.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Employer* within thirty days of the notification or as otherwise instructed by the *Employer*.

Z2.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the *starting date* the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor*'s obligation to Provide the Works.

Z2.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *works*.

Z3 Confidentiality

Z3.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to others except where required by this contract. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to others where required by this contract the *Contractor* ensures that the provisions of this clause are complied with by the recipient.

Z3.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Employer*.

Z3.3 In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the *Contractor* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.

Z3.4 The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Employer*. All rights in and to all such images vests exclusively in the *Employer*.

Z3.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z4 Waiver and estoppel: Add to clause 12.2:

Z4.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties or their delegates or the *Adjudicator* does not constitute a waiver of rights, and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.

Z5 Health, safety and the environment

Z5.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *works*. Without limitation the *Contractor*:

- accepts that the *Employer* may appoint him as the "Principal Contractor" (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) ("the Construction Regulations") for the Site;
- warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of *works*; and
- undertakes, in and about the execution of the *works*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

Z5.2 The *Contractor*, in and about the execution of the *works*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

Z6 Provision of a Tax Invoice and interest. Add to clause 50

Z6.1 The *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer*'s procedures stated in the Works Information, showing the correctly assessed amount due for payment.

Z6.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of clause 51.2 is then calculated from the delayed date by when payment is to be made.

Z6.3 The *Contractor* is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer*'s VAT number 4740101508 on each invoice he submits for payment.

Z7 Notifying compensation events

Z7.1 Delete from the last sentence in clause 61.1, "unless the event arises from an instruction of the *Employer*."

Z8 *Employer's* limitation of liability; Add to clause 80.1

Z8.1 The *Employer* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand).

Z9 Termination: Add to clause 90.2, after the words "or its equivalent":

Z9.1 or had a business rescue order granted against it.

Z10 Addition to Clause 50.5

Z10.1 If the amount due for the *Contractor*'s payment of *delay damages* reaches the limits stated in this Contract Data (if any), the *Employer* may terminate the *Contractor*'s obligation to Provide the Works.

If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *works*.

Z11 Ethics

For the purposes of this Z-clause, the following definitions apply:

Affected Party means, as the context requires, any party, irrespective of whether it is the *Contractor* or a third party, such party's employees, agents, or Subconsultants or Subcontractor's employees, or any one or more of all of these parties' relatives or friends,

Coercive Action means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,

Collusive Action means where two or more parties co-operate to achieve an unlawful or illegal purpose, including to influence an Affected Party to act unlawfully or illegally,

Committing Party means, as the context requires, the *Contractor*, or any member thereof in the case of a joint venture, or its employees, agents, or Subcontractors or the Subcontractor's employees,

Corrupt Action means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,

Fraudulent Action means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,

Obstructive Action means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and

Prohibited Action means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action.

Z11.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

Z11.2 The *Employer* may terminate the *Contractor*'s obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor*'s obligation to Provide the Services for this reason.

Z11.3 If the *Employer* terminates the *Contractor*'s obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.

Z11.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z12 Insurance

Z _12.1 Replace core clause 82 with the following:

Insurance cover 82

82.1 When requested by a Party, the other Party provides certificates from his insurer or broker stating that the insurances required by this contract are in force.

82.2 The *Contractor* provides the insurances stated in the Insurance Table A, from the *starting date* until the earlier of Completion and the date of the termination certificate.

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity	Cover provided until
Loss of or damage to the *works*	The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible as at contract date, where covered by the *Employer*'s insurance	The *Employer*'s certificate of Completion has been issued
Loss of or damage to Equipment, Plant and Materials	The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible as at contract date, where covered by the *Employer*'s insurance	The Defects Certificate has been issued
The *Contractor*'s liability for loss of or damage to property (except the *works*, Plant and Materials and Equipment) and for bodily injury to or death of a person (not an employee of the *Contractor*) arising from or in connection with the *Contractor*'s Providing the Works	Loss of or damage to property *Employer*'s property The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible as at contract date where covered by the *Employer*'s insurance	

	Other property The replacement cost **Bodily injury to or death of a person** The amount required by the applicable law	
Liability for death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law	

82.3 The *Employer* provides the insurances as stated in the Insurance Table B

INSURANCE TABLE B

Insurance against or name of policy	**Minimum amount of cover or minir of indemnity**
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z13 Nuclear Liability

Z13.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.

Z13.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z13.3 Subject to clause Z13.4 below, the *Employer* waives all rights of recourse, arising from the

aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z13.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.

Z13.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z14 Asbestos

For the purposes of this Z-clause, the following definitions apply:

AAIA means approved asbestos inspection authority.

ACM means asbestos containing materials.

AL means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.

Ambient Air means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.

Compliance Monitoring means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.

OEL means occupational exposure limit.

Parallel Measurements means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.

Safe Levels means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.

Standard means the *Employer*'s Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.

SANAS means the South African National Accreditation System.

TWA means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

Z14.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance

with HSG248 and monitored according to HSG173 and OESSM.

Z14.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor*'s expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.

Z14.3 The *Employer* manages asbestos and ACM according to the Standard.

Z14.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.

Z14.5 The *Contractor*'s personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.

Z14.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.

Z14.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer*'s expense, and conducted in line with South African legislation.

Data provided by the *Contractor* (the *Contractor*'s Offer)

The tendering contractor is advised to read both the NEC3 Engineering and Construction Short Contract (April 2013) and the relevant parts of its Guidance Notes (ECSC3-GN)[4] in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on page 31 of the ECSC3 April 2013 Guidance Notes.

Completion of the data in full is essential to create a complete contract.

10.1	The *Contractor* is (Name):	**[●]**
	Address	**[●]**
	Tel No.	**[●]**
	Fax No.	**[●]**
	E-mail address	**[●]**
63.2	The percentage for overheads and profit added to the Defined Cost for people is	**[●]%**
63.2	The percentage for overheads and profit added to other Defined Cost is	**[●]%**
11.2(9)	The Price List is in	**the document called 'Price List' in Part 2 of this contract.**
11.2(10)	The offered total of the Prices is [Enter the total of the Prices from the Price List]:	**R[●]** **excluding VAT** **[in words]** **[●]** **excluding VAT**

[4] Available from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

C2 Pricing Data

C2.1 Pricing assumptions

C2.2 Price List

The Price List is as follows

Item no.	Description	Unit	Quantity	Rate	Price
1.0	Preliminaries and General				
	Fixed Obligations				
1.1	Site Establishment	sum	1		
1.2	Site De Establishment	sum	1		
	Healthy and Safety				
1.3	Medicals	sum	1		
1.4	PPE	sum	1		
1.5	Safety file	sum	1		
1.6	Environmental and Quality requirements as per Eskom Standards	sum	1		
	Time Related Charges. Contractor to allow duration				
1.7	Tools and Equiment	sum	1		
1.8	Transportation of staff for the duration of the Contract	sum	1		
1.9	Site office containers	sum	1		
1.10	Accommodation	sum	1		
1.11	Supervision of the works	sum	1		

1.12	labour resources for the duration of the contract	sum	1		
2.0	Earth Works:				
2.1	Surface Preparation (Clear and Grub), a) Clear and prepare area to be covered by the foundation bedding layer and seepage collector box.	m2	644		
2.2	Supply bedding from commercial sources and lay as per SANS 1200, Construct foundation bedding and filter / drain layers:				
2.3	Rock / stone for base layers	m3	298		
2.4	19mm stone for side drain collectors (2nd bench)	m3	83		
2.5	19mm stone for side drain collectors (3rd bench)	m3	177		
2.6	Approved blanket sand filter material	m3	365		
3.0	Concrete Works: Concrete of compressive strength of 30MPa/19mm aggregate. Including Power Float Finish. Contractor to allow for Smooth formwork				
	Seepage collector box (Complete construction): Rates to include excavations as per detailed scope of work and drawings				
3.1	Concrete should be thoroughly compacted in terms of SANS 10100 /2 by using suitable concrete vibrators. Concrete Grade 25/19 Mpa concrete	m^3	4.5		
3.2	Reinforcement shall be Ref 193 welded mesh reinforcement. All reinforcement to be thoroughly cleaned from any rust, shale, or contaminations e.g., oil.	m^2	6		
	Penstock Connector box (Complete construction): Rates to include excavations as per detailed scope of work and drawings				
3.3	Concrete should be thoroughly compacted in terms of SANS 10100 /2 by using	m^3	5.65		

	suitable concrete vibrators. Concrete Grade 25/19 Mpa concrete				
3.4	Reinforcement shall be Ref 193 welded mesh reinforcement. All reinforcement to be thoroughly cleaned from any rust, shale, or contaminations e.g., oil.	m²	6		
4.0	Drainage Pipework				
	Sub-soil drainage: Including Excavations as per detailed scope of work				
4.1	110mm diameter perforated drainage pipes (2nd bench)	m	200		
4.2	110mm diameter perforated drainage pipes (3rd bench)	m	468		
4.3	160mm diameter perforated drainage pipes	m	570		
4.4	200mm diameter HDPE pipe (outfall)	m	24		
	Geotextile:				
4.5	Needle punched non woven geotextile 'A4 or similar approved	m²	3216		
5.1	Landscaping	Sum	1		
	Total				
	Total (Construction Costs) Excl. VAT				
	Plus VAT @ 15%				
	GRAND TOTAL				

C3: Scope of Work

C3.1 Works Information

The ash dam is a hydraulically deposited tailings facility. The ash slurry is deposited to the ash dam via the ash and sludge pipelines which terminate at the ash dam distribution box. Water is decanted from the Ash Dam, via penstocks, and to a concrete lined channel along the toe line. This water is channelled to the silt traps before flowing into the AWR (Ash Water Return) Dam. Water is then pumped back to the plant from the AWR Dam for re-use in the ash hydraulic deposition process.

The specific V-section is situated at the Eskom Duvha Power Station Ash Dam Complex, about 13 kilometres south-east of Emalahleni in the Nkangala District, Mpumalanga Province. Figure 1 below shows the V-section. The centre

co-ordinates (WGS 84) for the proposed buttress at the V-section are: Latitude **25° 56' 00.75'' S** and Longitude **29° 20' 41.69'' E**

1. Description of the *works*

1.SCOPE OF WORK

1.1 OVERVIEW

The Stability assessment report, 2020 Ash Dam Stability Analysis Report (SAWE Report No. P047-R0047 dated 14 December 2020), based on the high phreatic levels and post liquefaction analysis recommended an intervention to mitigate failure of the embankment. The following abstract has reference:

“On the post liquefaction analysis, Sections H and I (at the V-section) do show some of the slip circles below the 1.1 but the average is on the requirement. Sections H and I on the northern flank also indicate some intermediate (bottom section of slope) slip circles below the requirement which is clearly visible on site with the high rate of seepage at the toe of these sections. This could cause instability on the long run as the material on the toe is slowly washed away by the constant channelling.

The solution to the high rate of seepage which is affecting the dam stability was the installation of elevated drains to collect the seepage on this area and discharge it to the solution trench. The aim of the elevated drains is to collect seepage which will decrease saturation of this area and therefore lower the phreatic levels.

1.2 SITE CHARACTERISTICS

The ash dam is a hydraulically deposited tailings facility. The ash slurry is deposited to the ash dam via the ash and sludge pipelines which terminate at the ash dam distribution box. Water is decanted from the Ash Dam, via penstocks, and to a concrete lined channel along the toe line. This water is channelled to the silt traps before flowing into the AWR (Ash Water Return) Dam. Water is then pumped back to the plant from the AWR Dam for re-use in the ash hydraulic deposition process.

The specific V-section is situated at the Eskom Duvha Power Station Ash Dam Complex, about 13 kilometres south-east of Emalahleni in the Nkangala District, Mpumalanga Province. Figure 1 below shows the V-section. The centre co-ordinates (WGS 84) for the proposed buttress at the V-section are: Latitude **25° 56' 00.75'' S** and Longitude **29° 20' 41.69'' E**

Figure 1: V-section

1.3 DETAILED SCOPE

The contractor shall execute the scope of work to install the elevated drainpipe system as follows:

a) Clear and prepare area to be covered by the foundation bedding layer and seepage collector boxes. An area of approximately 570m² shall be cleared and prepared.

b) Construct a 1.5m-thick stone / rock base for free drainage purposes and to form a work bench on which the pipe drain can be installed.

c) Construct 600mm thick sand blanket filter on top of the constructed rock base. Sand to be compacted to 95% standard Proctor.

d) A4 bidim or similar approved by the Engineer are to be installed between the different rock bedding layers and the filter sand layer.

e) Construct two concrete seepage collector boxes. One box with a baffle wall to intercept the seepage from the old penstock which is the source of seepage on the V-section and another box to collect the seepage down slope of the V-section and discharge to the solution trenches.

f) Install the main pipe drainage system (3x 160mm diameter perforated drainpipes) to tie into the seepage collector box for the penstock and tie into the seepage collector box downslope of the V-section and ultimately the solution trenches.

g) Install two side drain collectors on the third (3rd) bench which consist of 110mm diameter perforated drainpipes covered by stone and geotextile to link up with main conveyance filter.

h) Install two side drain collectors on the second (2nd) bench which consist of 1x 110mm diameter perforated drainpipes covered by stone and geotextile to link up with main conveyance filter.

i) Landscape after construction to adhere to Environmental specifications and requirements.

1.3.1 DESIGN & MATERIALS REQUIREMENTS

1.3.1.1 Sand filter zone construction (Main filter)

A horizontal blanket and inclined blanket sand filter zone of 600mm thickness by 3m wide will be constructed on top of the rock bedding layers as described below. The sand zone will house the perforated drainpipes which will link up with the concrete seepage collector box. An A4 geotextile layer will be placed below the sand layer to separate the sand layer with the rock bedding layers beneath.

The sand grading envelope in figure 2 below provides the recommended upper and lower bands for the filter sand to be used.

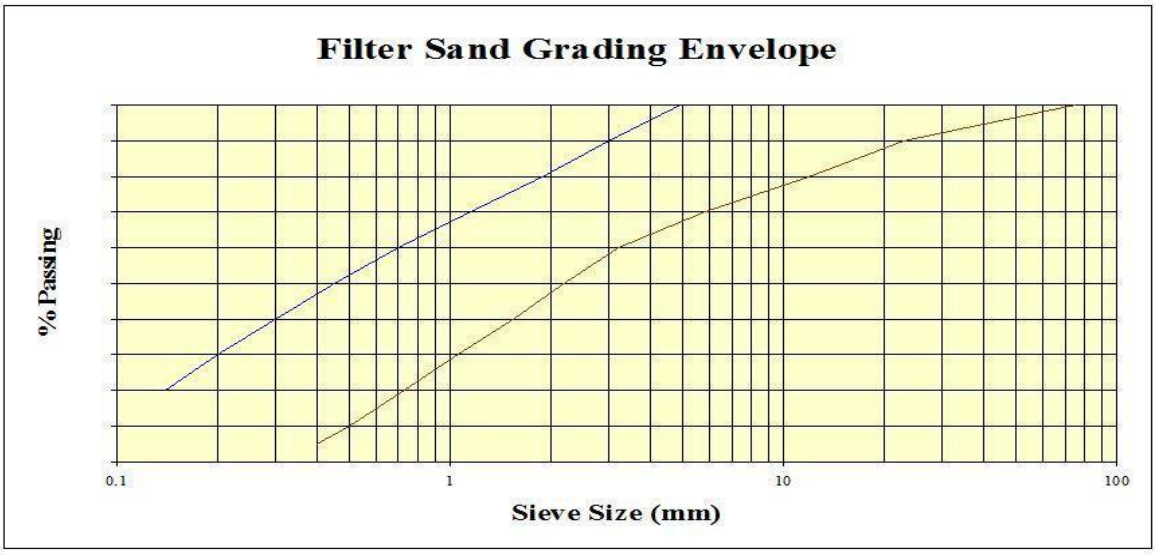


Figure 2: Sand grading envelope

1.3.1.2 Rock base foundation construction (Main filter)

Due to the wet conditions at the V-section due to constant seepage, a working platform will have to be constructed for the pipe drains.

The working platform shall:

1. Be semi free draining; and
2. Provide weight to consolidate the current wet base.

Considering the above criteria, it was decided to use a stone / rock base for the foundation platform construction as it will provides for semi free draining conditions underneath the pipe drain zone. The rock base will also add weight to the V-section to assist with stability.

The rock base shall consist of three (separate layers) as indicated on figure 3. The bottom base layer shall consist of rock with diameter >300mm and layer thickness of 500mm. The middle layer will have rock with diameters between 200mm and 300mm and layer thickness of 500mm, and the top layer will have rock / stone with diameter between 100mm and 200mm with layer thickness of 500mm.

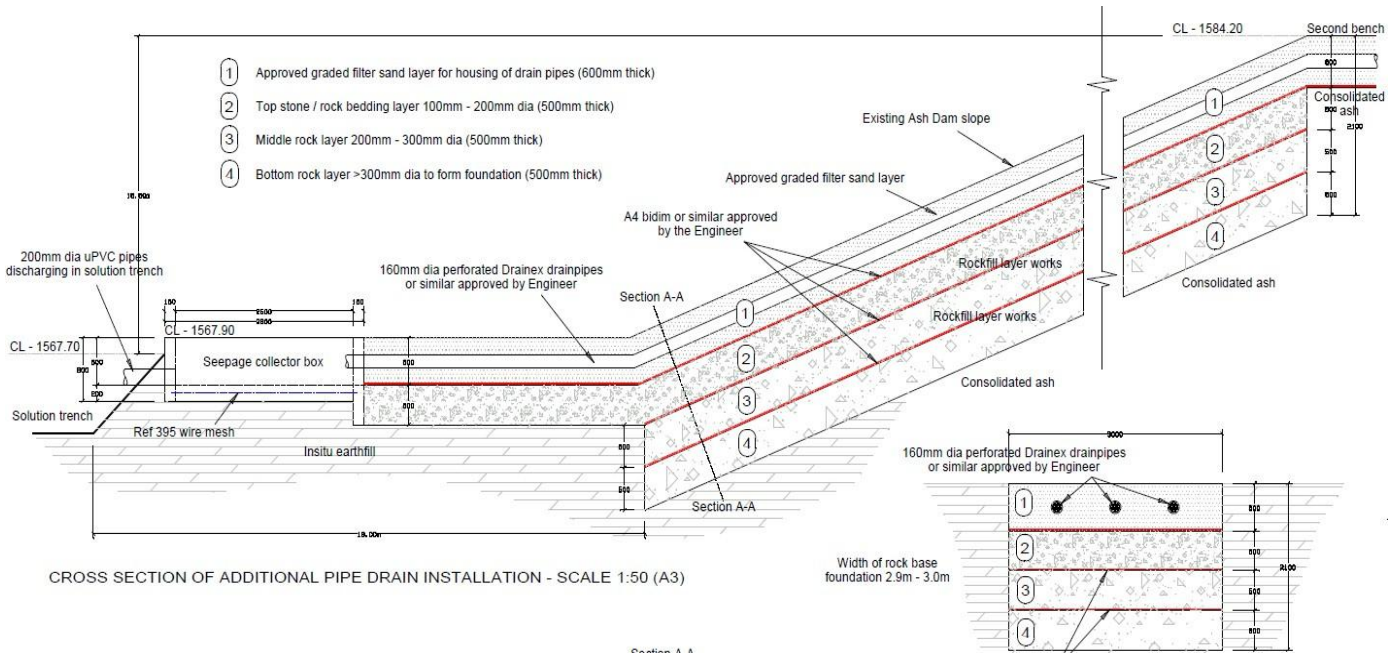


Figure 3: Base layers and main drainpipes

During construction, the rock material can be dumped from either side of the cleared V-section to form the base layers. This will ease construction conditions, especially in the V where the area is highly saturated. As the rock base is constructed the three (3) proposed layers shall be divided by A4 geotextile layers. This is to prevent the finer rock of the top layers mixing with the larger bottom rock sizes.

1.3.1.3 Main drainpipes and seepage collector boxes

A set of three (3) perforated Drainex drainpipes will be installed within the blanket sand filter zone, as discussed under section 3.3 (detailed scope). The pipes shall be 160mm diameter perforated drainage pipes (Drainex or similar approved) and shall be installed against the slope of the Ash Dam up to the third bench.

The perforated Drainex pipes start at the 3rd bench where they will link with the side drain collector pipes as shown in figure 4. The main drainpipes will also link with the side drain collector pipes at the 2nd bench (See figure 5) and link up with a newly constructed seepage collector box for the penstock as shown in figure 6. The drainpipes will exit the penstock seepage box and link up with the concrete seepage collector box next to the solution trench as per detail drawings 0.57/64408. Two pipes of 200mm diameter PVC will drain the collector box to the solution trenches (see figure 7).

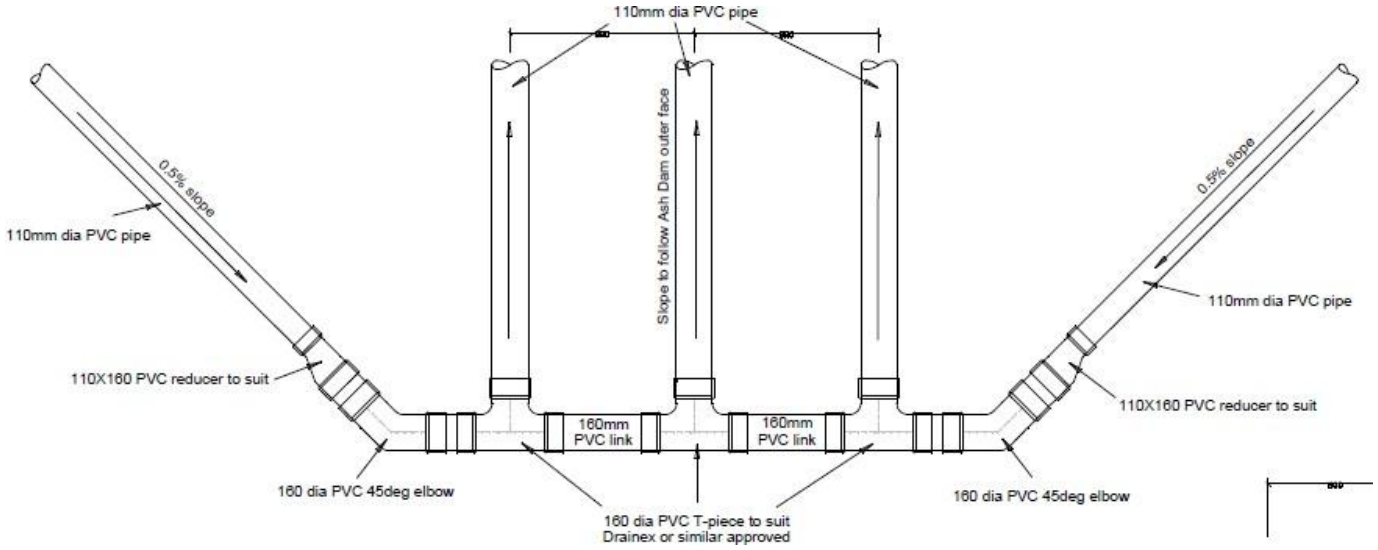


Figure 4: Main drainpipes linking with side drains on the 3rd bench.

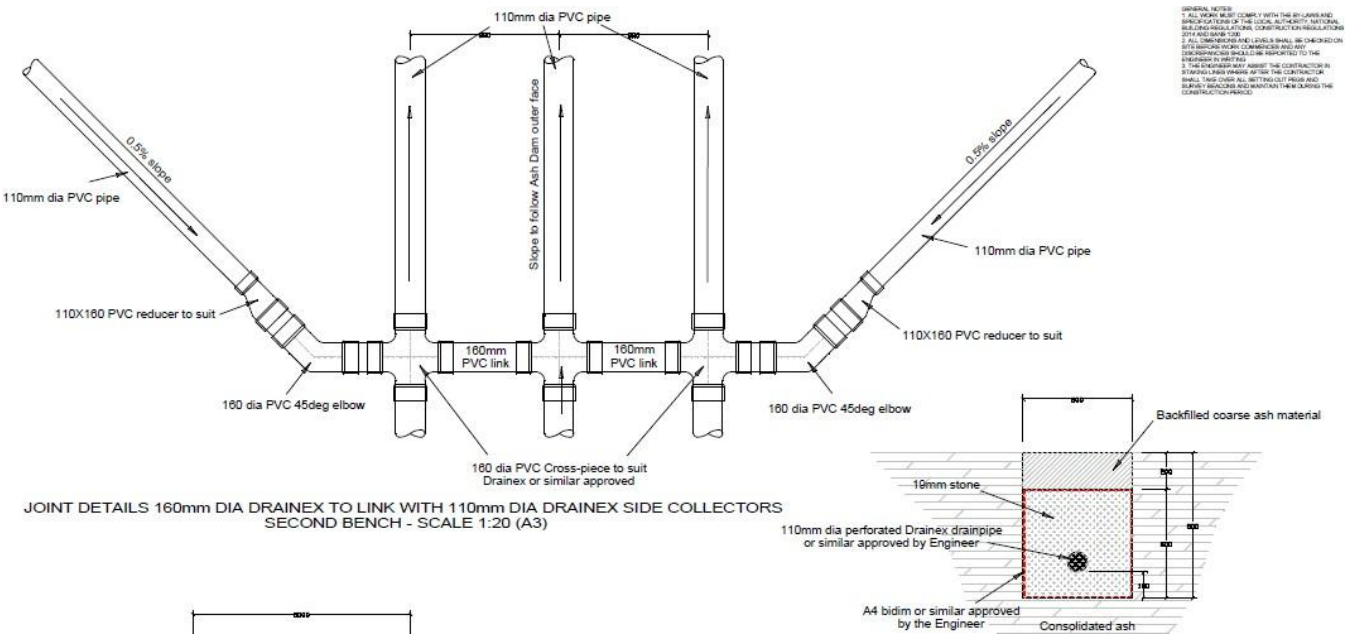


Figure 5: Side drains linking to the main drainpipes on the 2nd bench.

The seepage collector boxes shall be constructed with class 35/19MPa concrete and minimum cover of 75mm. The penstock seepage collector box shall be of dimensions 2000mm x 2000mm x 1500mm and the seepage collector box which will discharge into the solution trenches shall have dimensions of 2500mm x 2000mm x 800mm. Ref 395 Wire mesh shall be placed within the floor slab.

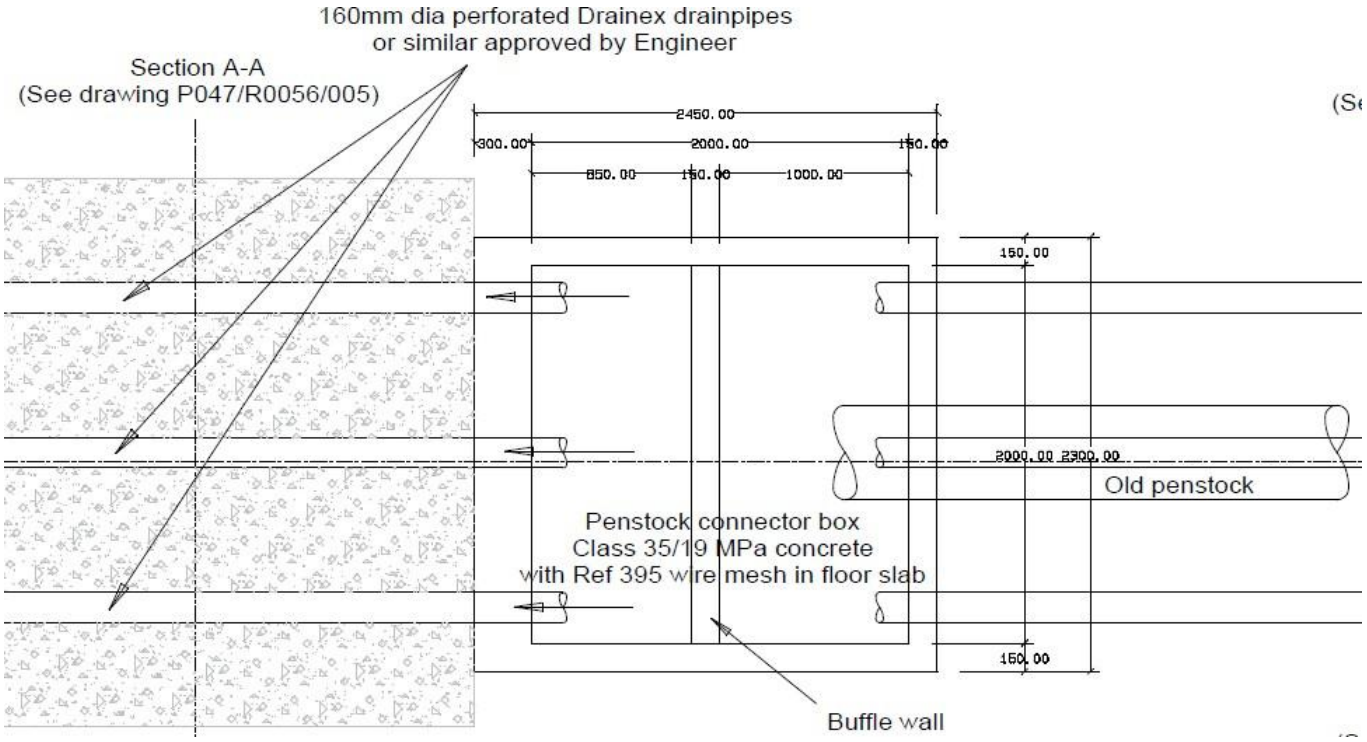


Figure 6: Seepage collector box for the penstock

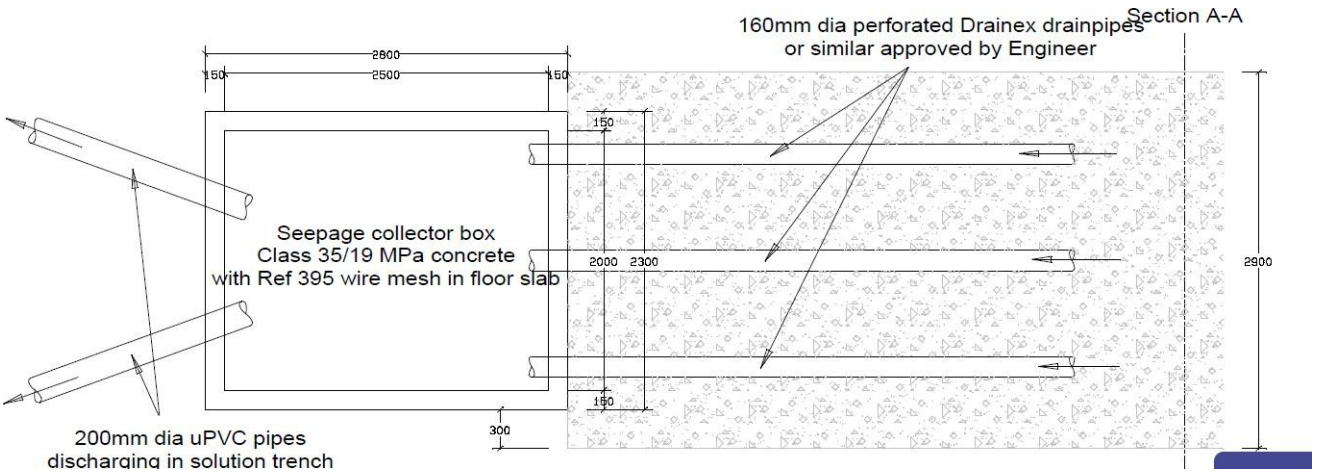


Figure 7: Seepage collector box discharging into the solution trench.

1.3.1.4 Side drains collectors

Two (2) side drain collectors will be installed on the third bench as well as the 2nd bench as shown in figures 4 and 5. These collectors will intercept seepage between piezometer lines “H” and “K” and will consist of 1x 110mm diameter perforated (Drainex or similar) drainpipes which will be covered by 19mm stone and A4 geotextile as per Detail Section C-C on the drawings. The two side collectors will link up with the main conveyance filter which will be constructed against the Ash Dam’s outer face. The collector drains will be installed with a 0.5% slope towards the main filter.

The detail design drawings have the required dimensions for the construction of the elevated drains at the ash dam. The contractor shall provide a method statement detailing the execution of all the works required as per this scope of work and detail design drawings provided.

1.4 GENERAL REQUIREMENTS

The Appointed Contractor shall be responsible for the construction of the works, including all temporary works, and all associated services and infrastructures in accordance with the detailed drawings and specifications provided by the Employer.

The Contractor disposes of all waste generated by the works into correct disposal waste bins as provided by the Project Manager for small waste, the Contractor(s) shall be responsible for disposing waste at approved disposal sites for waste that cannot be disposed on site. The Contractor takes all necessary precautions that may be required to safeguard existing infrastructure and services including protection of all surface works against the ingress of surface water. These additional works shall be formally documented in method statements for the Employer's review and acceptance. This includes detailed inspections and assessment, supply/procurement of material, construction and finishes.

The Contractor takes note that review and acceptance of any document/ drawing/ design calculations by the Employer's engineer in no way relieves the Contractor of his liability for the works. The Contractor remains liable for all works conducted as per this document. The Contractor is liable and fully accountable for the design and construction works as well as the constructability thereof.

The Contractor interacts with others through the Project Manager, to ensure seamless integration of the various works. Only trained personnel are allowed to perform the works of all infrastructure. Records of training are maintained by the Contractor's Quality Control Department.

1.4.1 Temporary works

The Contractor shall provide, operate, and maintain enough pumping equipment, well points, pipes and other equipment as may be necessary for dealing with water. The Contractor shall also provide any temporally works as may be necessary to minimise damage, inconvenience, or interference with the execution of works.

1.4.2 Site clearance

Site clearance shall include for the removal of any structure e.g., footpath paving, concrete slabs, signs, fencing and or barriers, pot plants etc.

Remove topsoil to nominal depth of 150mm haul and stockpile on designated stockpile area. The site shall be cleared up to a distance or at least 1m beyond the perimeter of the structure associated with the construction works. This operation shall be deemed to include the digging up and removal of rubbish, debris, vegetation, hedges, shrubs etc. as well as the digging up of topsoil to a depth of 150mm and examining for and removal of all dead roots and other vegetable matter likely to provide food for termites.

All excess topsoil material together with the rubbish, debris, vegetation, hedges, shrubs etc. shall be removed after completion of the works. The material shall be loaded and hauled to a designated approved disposal site of the Contractor's choice where it shall be dumped. The construction areas shall be kept in a dry and acceptable condition in all weather conditions.

1.4.3 Excavations

Trenches and holes for foundations and bases shall be excavated to the several lengths, widths and depths shown on drawings provided. Bottoms of trenches and holes shall be level, with sides trimmed vertical for the full width from top to bottom. Any excavations taken out too deep shall be made up to

correct levels with Class A concrete, at the Contractor's expense. Back filling and ramming is not acceptable. Excavated ash material may be used for backfilling in all areas.

1.4.4 Water in Excavations:

- The area on which the elevated drains shall be installed or constructed is a saturated area with constant flow of water (seepage) from the dam. The Contractor shall be required to properly deal with water and dispose of water to ensure that the works are kept sufficiently dry for their proper execution while adhering to environmental regulations.
- The Contractor shall provide, operate, and maintain enough quantity of the pumping equipment, well points, pipes and other equipment that may be necessary to deal with water.
- The Contractor shall also provide temporally works as may be necessary to minimise damage, inconvenience, or interference.
- No water shall be allowed to accumulate in any portion of the excavations. Any water found in the excavations shall immediately be removed by pumping, the contractor shall propose a method of water removal prior to execution should they believe that pumping will be ineffective. It is the Contractor's responsibility to keep excavations water free and the Contractor must supply all pumps and all equipment that may be necessary for clearing out the water. Water must be cleared in such a way that it cannot seep or flow back into the excavations.

1.4.5 Fresh concrete

- The concrete should be designed to ensure adequate consistence as measured by the slump test (see SANS 5862-1). The required slump shall be 100 mm.
- The concrete should be cohesive enough to ensure complete compaction and to avoid segregation. This can be assessed by tapping the base plate in the slump test after the slump has been determined. A cohesive mix should settle gradually without the concrete falling apart.
- The bleeding of the fresh concrete should be minimized as excessive bleeding can result in zones of weakness when trapped below aggregate particles and reinforcing steel and also interfere with finishing operations. Care shall be taken not to reduce bleeding too much as this will significantly increase the risk of plastic shrinkage cracking.
- The effect of admixtures, when used, on setting and bleeding should be assessed.
- The amount of paste on the surface after compaction should be assessed in the laboratory. Too little paste could result in difficulty in finishing the surface and disturbance of the coarse aggregate near the surface. Too much paste could result in durability problems such as dusting and crazing of the surface of the floor.
- Concrete should be thoroughly compacted in terms of SANS 10100 /2 by using suitable concrete vibrators.
- Damp curing of the topping should start immediately after surface finishing by covering the patch with polyurethane or damp hessian. Damp curing should be maintained for at least 3 days.
- The construction area is to be barricaded for at least 3 days.

NB: All construction specifications shall be provided by the contractor for review and acceptance to the employer’s engineer prior to execution.

1.4.6 Finishes:

Finishes shall be a smooth power float finish.

1.4.7 Hardened concrete

The 28-day compressive strength for concrete is 35MPa.

1.4.8 Formwork

All formwork to be provided with a smooth finish.

All exposed concrete edges to be provided with a 25 x 25 chamfer. Contractor to liaise with the Engineer in this regard.

1.4.9 Reinforcement

- All reinforcement shall be Ref 395 welded mesh reinforcement.
- All reinforcement to be thoroughly cleaned from any rust, shale, or contaminations e.g., oil.

1.4.10 Site to be left clear.

The Contractor shall be responsible for the clearing away of excess materials, debris, and rubbish, arising from the construction of the Works, during the construction and maintenance periods.

On completion of the Permanent Works the Contractor shall, at his expense, remove all surplus materials and equipment save that required for maintenance work, which shall be removed on completion of the whole of the Works. However, no guards or safety equipment provided in terms of the "Occupational Health and Safety Act, 1993" for securing the safety of persons may be removed if such removal constitutes a reduction to the safety of persons.

1.5 QUALITY CONTROL

All work is carried out under the supervision of an experienced supervisor. The Contractor complies with the Employer's Quality Requirements as specified in Eskom Generation Standard GGS 0462.

All work must be inspected and approved as per QCP holding points by the system engineer and project manager. The contractor's supervisor is entirely responsible for ensuring that the work is carried out as per the complete QCP.

All quality control documentation is submitted to the Project Manager within 7 days of Contract date. Quality Control:

- The contractor to provide a Quality Control Plan to Eskom Duvha for approval prior to construction. The contractor shall also assure that the following quality control documentation are available during construction and are submitted to ESKOM on completion.
- Ready Mix Concrete delivery note (if ready mix concrete will be used)
- QCP plan with signed off witness and hold points by Eskom's Engineer
- Slump test to be done in terms of SANS 5862-1
- Cube Testing in terms of SANS 5860, SANS 5860 – 2&3:
- Cube test samples to be taken and tested by an approved laboratory which will be agreed upon prior to execution of work.
- Testing of cubes shall be done on 7 and 14 as well as 28 days.

The construction area must be rehabilitated post construction to prevent erosion and adhere to environmental requirements.

1.6 SKILLS & EXPERIENCE

The works shall be carried out under the supervision of the contractor's Engineer. The final report shall be signed and approved by the responsible Professional Engineer.

1.7 GOVERNANCE

As a minimum, the Consultant is expected to comply with the Eskom Engineering governance documents as listed in section 2.2.

See the attached document for scope of work for the installation of elevated drain at the ash dam

Scope of work for the installation of elevate

2. Drawings

Drawing number	Revision	Title

3. Specifications

List the specifications that apply to this contract. Some typical headings have been provided as a minimum; delete if not required or expand and include correct titles as applicable.

Title	Date or revision	Tick if publicly available
General Specifications:		
Health and Safety requirements		
Environmental requirements		
Site regulations and access control		

Technical specifications:		

4. Constraints on how the *Contractor* Provides the Works

Construction

- **Temporary works, Site services & construction constraints**
- **Employer Site entry and security control, permits and Site regulations.**

All contractor's employees are to attend a mandatory site safety induction course before they are allowed to work on site. It is the responsibility of the contractor to ensure that all of their staff has attended the induction. The contractors must compile their own safety file which has to be approved by Eskom safety officer. This file must be approved before the Contractor may attend the safety induction course.

The Contractor must provide a list of all employees, along with the dates and time s of arrival, at least 2 days prior to arrivals on site.

All individuals entering Duvha Power Station will be subjected to alcohol testing daily. No person found to be intoxicated will be admitted on the premises. It is the responsibility of the Contractor to ensure that their staff is compliant.

- **Restrictions to access on Site, roads, walkways and barricades.**

In addition to the above there may be other restrictions once on the Site, plus rules relating to roads, walkways and the provision of barricades.

- **People restrictions on Site, roads, walkaways and barricades**

Restriction and hours of work may apply on some Sites. It is very important that the Contractor keeps records of his people on Site, including those of his Subcontractors which the Project Manager or Supervisor have access to at any time. These records may be needed when assessing compensation events.

4.1 Meetings

1) Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Kick off meeting, implementation strategy	One off 60 minutes (Time to be announced by Project Manager)	Project Managers office	PM, System Engineer and contractor
Risk registers and	As and when required	Project Managers office	PM, System Engineer

compensation events			and contractor
Overall contract progress and feedback	Monthly on Thursday at 10:00am	Project Managers office	*PM. Contractors' Manager*
Commissioning	Once off	Project Managers office and Site	PM. Contractors' Manager & Supervisor

2) Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the works.
3) Records of these meetings shall be submitted to the Project Manager by the person convening the meeting within five days of the meeting.
4) All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting.
5) Such minutes or register as in point 4) shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the conditions of contract to carry out such actions or instructions.

4.2 Use of standard forms

1) Occupational Health and Safety, Act Number 85 of 1993
2) 240-49230111 Hazard and Operability Analysis (HAZOP) Guideline (Rev 1)
3) 240-30008949 Safety, Health and Environmental Specifications for Contractors
4) 240-105658000 Supplier Quality Management Specification (QM 58)
5) 240-28463367 SHE Organization
6) 240-62196227 Life Saving Rules
7) 240-101712128 Standard for the Internal Corrosion Protection of Water Systems, Chemical Tanks and Vessels and Associated Piping with Linings

240-106365693 Standard for the External Corrosion Protection of Plant, Equipment and Associated Piping with Coatings

8) 4.3 Invoicing and payment
9)
10) Within one week of receiving a payment certificate from the Service Manager in terms of core clause 51.1, the Contractor provides the Employer with a tax invoice showing the amount due for payment equal to that stated in the Service Manager's payment certificate.
11)

12) The Contractor attaches the detail assessment of the amount due to each tax invoice showing the Price for Work Done to Date for each item in the Price List for work which he has completed.

13)

14) In terms of core clause 50 the Contractor assesses the amount due and applies to the *Employer* for payment. The *Contractor* applies for payment with a tax invoice addressed to the *Employer* as follows:

The *Contractor* includes the following information on each tax invoice:

- Name and address of the *Contractor*
- The contract number and title;
- *Contractor*'s VAT registration number;
- The *Employer*'s VAT registration number 4740101508;
- The total Price for Work Done to Date which the *Contractor* has completed;
- Other amounts to be paid to the *Contractor*;
- Less amounts to be paid by or retained from the *Contractor*;
- The change in the amount due since the previous payment being the invoiced amount - excluding VAT, the VAT and including VAT;
- (add other as required)

4.4 Records of Defined Cost

All prove payments that are made by Eskom to contractors' employees, compensation events, materials, work subcontracted by the contractor and Equipment must be kept safe on the files by the contractor for the purpose of investigations. Eskom must keep those documents to Open texts.

4.5 Accelerated Shared Growth Initiative – South Africa (ASGI-SA)

The *Contractor* complies with and fulfils the *Contractor's* obligations in respect of the Accelerated and Shared Growth Initiative - South Africa in accordance with and as provided for in the *Contractor*'s ASGI-SA Compliance Schedule stated below
.
[Insert the agreed ASGI-SA Compliance Schedule here]

The *Contractor* shall keep accurate records and provide the *Employer* with reports on the *Contractor*'s actual delivery against the above stated ASGI-SA criteria. [Elaborate on access to and format of records and frequency of submission etc.]

The *Contractor*'s failure to comply with his ASGI-SA obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract.

4.6 BBBEE and preferencing scheme

Eskom's policy is to maximise purchases from Black or Black Empowering Enterprises (BEE's) whether Black Woman-owned, small or Large Black or Black empowering suppliers. The purpose is to promote

entrepreneurship in black communities and give black business access to the mainstream of business opportunity.

4.7 Facilities to be provided by the *Contractor*

The contractor should provide facilities they deem necessary in executing the work. This must be discussed with the Project Manager prior to commencement of work.
The Contractor shall supply all the necessary equipment and material required to execute the works, including portable ablution facilities and proper eating facilities for their employees.

4.9 Design by the *Contractor*

Eskom Engineers will provide the contractor with basic designs then the Contractor must use the basic designs to do the detailed designs, and it must be submitted to Eskom Engineers.

5. Requirements for the programme

State whether a programme is required and, if it is, state what form it is to be in, what information is to be shown on it, when it is to be submitted and when it is to be updated.

State what the use of the *works* is intended to be at their Completion as defined in Clause 11.2(1).

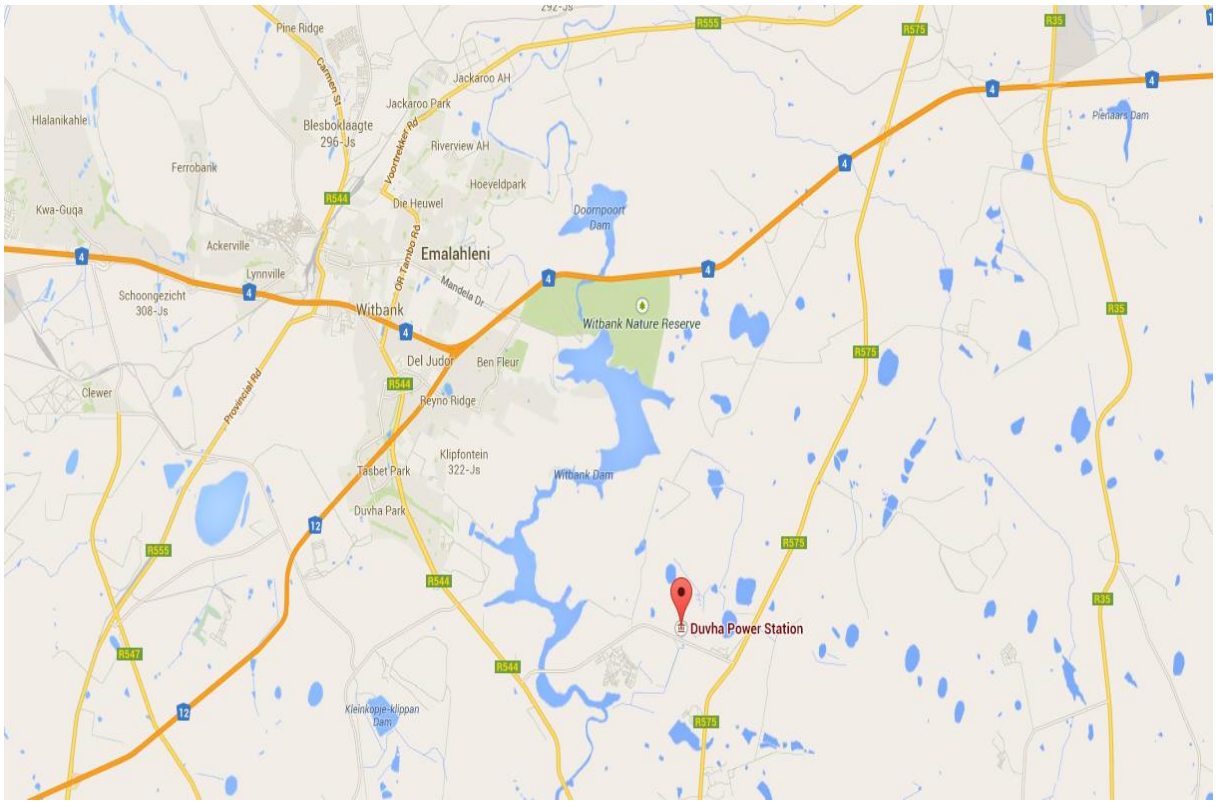
C4: Site Information

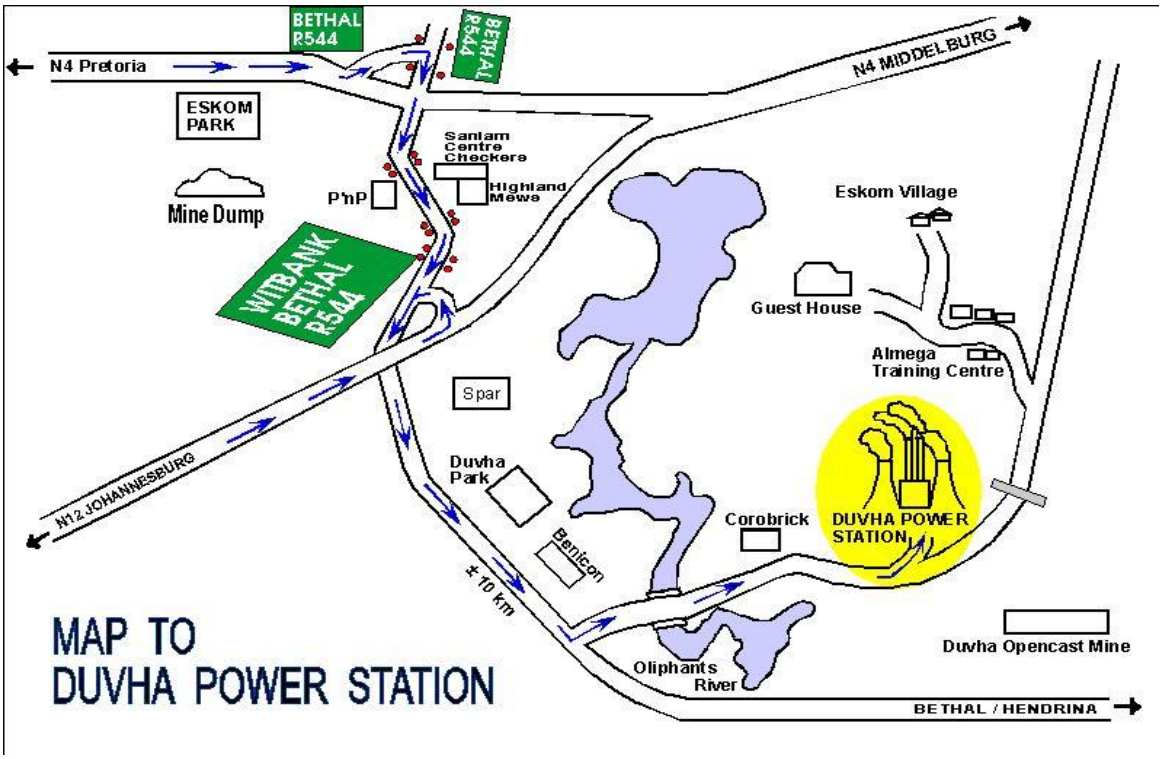
PART 4: SITE INFORMATION

Core clause 11.2(16) states

1. Site Location

Duvha Power Station is located approximately 15km from Emalahleni, Mpumalanga Province and at an elevation of 1 600m above sea level. The location and access roads are shown in the diagrams below.




BETHAL R544
BETHAL R544
N4 Pretoria
N4 MIDDELBURG
ESKOM PARK
Sanlam Centre Checkers
Highland Mews
P'nP
Mine Dump
WITBANK BETHAL R544
Eskom Village
Guest House
Almega Training Centre
Spar
Duvha Park
N12 JOHANNESBURG
Corobrick
DUVHA POWER STATION
Benicon
± 10 km
Duvha Opencast Mine
Oliphants River
BETHAL / HENDRINA
MAP TO
DUVHA POWER STATION

2. General description

Location of working area: circled in red

3. Wetland and No go Areas

Green polygon - is an artificial wetland likely caused by altered drainage and associated infrastructure causing ponding and the establishment of wetland vegetation.

Works in the red highlighted circle will require a method statement and Risk Assessment. No work to be carried within the orange area unless is 50 meters away. The area is marked as a no go area for construction activities.

Figure A:

Figure B:

4. Maintenance and Housekeeping

Maintenance of and within the Laydown Area and housekeeping of the Laydown and Working Areas will be the sole responsibility of the Contractor. All waste will be managed in accordance with Eskom Waste Management Procedure 32-245

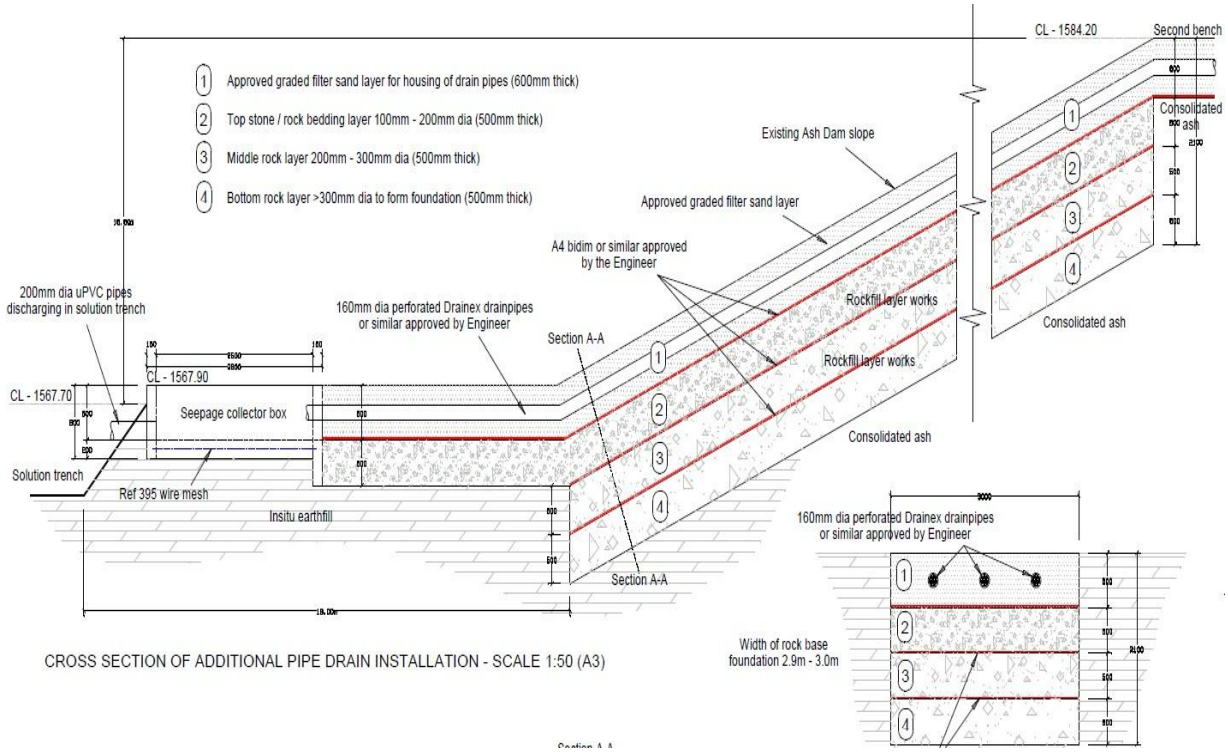
5.

a) Ash Dam

The Contractor is provided with the Station Ash Dam Layout (0.57/ 29273) which indicates the position of the dam, width and turning radii, in order to plan access and movement of vehicles to Duvha Power Station, Ash Dam. The Contractor is also issued certain available long sections and cross sections of the Ash Dam.

The Contractor is responsible for verifying the information provided before use.

- Drawings provided for information only:
- Duvha Power Station, Ash Dam Layout



b) Water

The *Employer* is to supply free issue potable water for domestic use, at a designated supply point. For uses other than domestic, the Contractor is responsible for the supply of water. Supply is based on reasonable use. The Supply point information is as per the Laydown and Working Areas Schedule.

Contractor is responsible for connection to the designated supply point and routing to desired areas within Laydown and Working areas.

c) Electrical Power Supply

Power is available at the existing points as provided by the *Employer*.
The Contractor provides his own portable 380V electrical distribution boards, and supply cables to and from the boards, for all his power supply requirements to execute the works.

Contractor's Electrical Distribution Boards complies with OHSA as referred to in the Electrical Installation Regulations and the Electrical Machinery Regulations.
Each board brought onto site must have a Certificate of Compliance issued by an accredited person.

The Contractors electrical distribution boards are installed at the works on a time negotiated with the Project Manager, prior to the access to the working site.
The Employer connects distribution boards to a 380V three-phase AC power supply, only after the Contractor has submitted the valid Certificate of Compliance.
All Contractors' Electrical Distribution Boards are earthed to the steel structure of the plant.

d) Sewage

The Contractor is responsible for either connecting to the local Sewage system or providing other means of managing sewage as required. The Contractor is responsible for connection to the designated supply points.

e) Gas

The Contractor is responsible for supply of any Gas as is necessary for the execution and completion of the Works and remedy of defects.

f) Communications

The Contractor will be responsible to provide for all communications services, including but not limited to internet, telephone, radio, required for the execution and completion of the Works and the remedy of Defects.

g) Overhead lines

The *Contractor* is responsible for ensuring any activities on Site do not interfere, impede or in any way disrupt any overhead lines, pylons or other transmission and distribution equipment. This is including but not limited to the transportation of Contractor's Equipment, Materials, Plant and Temporary Works to and from the Laydown and Working Areas.

The Contractor will be notified by the Employer for any services interruptions longer than 24 hours.

Planned interruptions may include strikes, maintenance and repairs activities etc.

6. Roads, facilities and Security

7.1 Access Road

The Contractor will be deemed to have been satisfied as to the suitability and availability of access routes to the Site (and other places, if any, as may be specified under the Contract as forming part of the Site).

7.2 Access to Site

Access to Site and continued use of the Site will be is in accordance with Duvha Access Control Procedure SCP0004 and the National Key Points Act, 1980 (Act No. 102 of 1980). The following must also be noted:

a) The *Contractor* applies for access permits for all works via the Employer's Representative.

b) The Contractor applies for Contractor's Permits for all his employees and/or subContractors at the Security gate, at least 72 hours prior to entry of the Duvha Power Station Security Area.
c) The Contractor submits his/her company's employee list to the Employers Safety Department listing all of the personnel that he intends using on Site when booking for SHE Induction as soon as the Contractor SHE File has been assessed and approved. At least 48 hours prior notice must be given to the Employer's Representative of the requirement to attend Site SHE inductions.
d) The completed list, identified with the Contractor's name, contains the following information:
    - Employee Name
    - Employee ID Number
    - Eskom Safety Co-ordinator signature
    - Employer's Representative's signature
    - Validity Date

a) No access permits are issued to personnel who have not attended SHE induction. A copy of proof of SHE induction attendance must be presented at Security when applying for employee access permits.
b) The Contractor photocopies the first page of the ID book of every one of his employees.
c) This completed list, together with the photocopies of the ID books / valid Passport / Work Permit is delivered to Protective Services for the preparation of the Contractor's Permits.
d) The Contractor allows at least 48 hours for the preparation of the security permits, before he collects the permits from the Protective Services offices.
e) The Contractor's personnel are required to be in possession of a Contractor's Permit at all times inside Duvha Power Station.
f) All Contractor permits are submitted back to Protective Services when the workers leave the site after completion of the works. The Contractor will ensure that all its employees/workers return such permits to the Employer. Failure to return the permits will result in a R100, 00 penalties for each non returned permit which will be deducted from the final payment.
g) The Contractor compiles detailed Tool Lists (obtainable from Protective Services) of all tools and equipment to be taken on site before arriving at the power station.
h) Authorised copies of these lists are retained to be used again when the tools and equipment is removed from site.
i) The Contractor's visitors and all personnel conform to the security arrangements in force at Duvha Power Station.
j) Application forms for visitors are filled in by the Contractor's Representative and approved by the Employer, and submitted to the Employer's Protective Services office one day prior to the visit.
k) Visitors will not be allowed on site if the necessary forms are not in the possession of security staff.
l) The Employer's Security Manager may, with valid cause, remove any of the Contractor's personnel from the site, either temporarily or permanently. They may deny access to the site to any person whom, in the opinion of the said manager constitutes a security risk.
m) No unauthorised vehicles will be allowed on site. Only Contractor vehicles with displayed Contract Vehicle Permits disks will be allowed on site. Contract Vehicle Applications are directed to the Employer's Representative for consideration and approval.
n) The Contractor is restricted to the Site. The Contractor is forbidden to enter any other areas, and ensures that his employees abide by these regulations.
o) No recruiting of casual labour may be done on Eskom premises, including the area outside the Power Station Security Gate.
p) Security personnel may search any premises, property or person within the security area of Duvha Power Station
q) No photographic equipment will be allowed within the security area of the Power Station without obtaining permission. Application forms for such permission is available from the

Security Services offices at the main entrance. Any person found in possession of such equipment will be prosecuted in terms of the National Key Point Act.

7.3 Security of Working Areas

The Contractor is responsible for the security and safe keeping of all working areas and any associated Contractor's Equipment, Materials, Plant, Temporary Works and Employer's Equipment as may be located within those areas.
The Contractor will at all times comply with the National Key Points Act, 1980 (Act No. 102 of 1980) within the parameters of the power station. The Contractor's proposal for achieving this will be submitted to the Employer for review within 14 days of the starting Date and the Employer will respond within 14 days of receipt.

The National Keys Point requirements will not be applicable to areas that fall outside the boundaries of the Duvha Power Station fence parameter. The Contractor will be responsible for security and access control for the Working areas. The access control must be a biometric type with capability to store all information, data retrievable, must be accessible and be able to indicate who is at the Working areas at any point in time.

The Contractor will be responsible for keeping unauthorised persons out of the Working Areas. Authorised persons will be limited to the Contractor's personnel, the Employer's personnel, Others and any other personnel notified to the Contractor by (or on behalf of the Employer), as authorised personnel. In addition, the Contractor will fully acquaint himself and strictly comply with all the Employer's security regulations particularly with regard to personnel, Plant, Material and the Contractor's Equipment entering or leaving the Site.

7.4 Welfare Facilities

The Contractor is responsible for provision, accessibility, maintenance, disposal of waste within, and housekeeping of all welfare facilities within the Working Areas, which include but are not limited to ablution, eating, changing, shower and rest areas. As a minimum the following will be provided:

- Shower facilities;
- Sanitary facilities;
- Changing facilities;
- Eating areas;

The Contractor is responsible for the provision and maintenance of the ablution facilities provided for his employees on the Working and Laydown areas. Additional sufficient temporary ablution facilities need to be put up by the Contractor on working area at various levels. These must be serviced and maintained as per health standard pertaining to the health and safety of these facilities.

The Contractor will provide sheltered eating areas for use of all Contractors' personnel on Site. Eating areas will provide adequate shelter and will be ventilated and lighted. Tables and backed seating will be provided. Suitable receptacles with lids for depositing waste will be provided at convenient points inside and outside the eating areas.

The Contractor will ensure compliance to all legislation Eskom's Food Hygiene and Safety Management - 39-113 procedure with respect to food management. Compliance will be verified during the client's audits and inspections on the Contractor.

Welfare, Ablution and Dinning facilities provided by the Contractor must be approved and be acceptable to the Employer.

The Contractor is responsible for provision of suitable Ablution facilities within the Working areas, which as a minimum will meet all relevant legislation. These facilities are to be provided in sufficient quantities and within sufficient proximity to the Works so as not to impede the Works or the operations of the Duvha Power Station.The Contractor shall provide his own permanent and temporal Ablution facilities. The permanent toilets shall be erected and fully functionally by the access to site date.

The Contractor is responsible for the provision of all meals for employees, in line with all relevant legislation and standards. The Contractor is responsible for the provision of suitable eating areas and these facilities are to be provided in sufficient quantities and within sufficient proximity to the Works so as not to impede the Works or the operations of the Duvha Power Station.

The Contractor is not allowed to use the Employer's dining facilities, unless a specific agreement has been made between the Contractor and Eskom Catering and Accommodation Services (ECAS). The Contractor may buy take away meals from the fast foods outlet on Site.

7.5 People and Equipment Movement

a) Passenger or Goods Lift

The Employer will not provide any passenger or goods lift services.

b) Meetings

All meetings are to be recorded using minutes or a register, prepared and circulated by the person convening the meeting. Such minutes or register are not used for the purpose of confirming actions, instructions or determinations under the Contract as these are done separately by the person(s) identified in the conditions of contract to carry out such actions, instructions or determinations. All meetings will be as per the Employer's specified Project Control specification.

c) Permits

The Contractor will comply with the Generation Plant Safety Regulations 36-681 at all times. The Contractor will provide an acceptable number of authorised Responsible Persons in accordance with the Generation Plant Safety Regulations to ensure that no delays occur during the execution of the Works and removing of defects. Duvha Power Station Training will be the responsibility of the Contractor. Verification, examination and authorisation of the nominated persons will be the responsibility of the Employer and will be performed on dates nominated by the Employer. Should the Contractors nominated persons fail to achieve the

required standards, any further training, verification, examination and approval will be the responsibility of the Contractor. The Contractor is to provide the proposed number of people to be authorised as a tender returnable.

7. Construction Rules

8.1 Works Stoppages

The *Contractor* will conduct a safety work stoppage for every LTI and fatality. Work Stoppages may include critical and high risk activities, suspension of work or part of the works by Eskom inspectorate Team or Department of labour inspectors. Suspension or withdrawal may be as a result of closure of Site/working area due to an accident/incident and non-compliance to procedure, legislative change and requirements. Activities may commence if the area is declared and certified safe for people to work. The Contractor shall have at least one work stoppage per quarter (every three months) for incident lessoned learn, risk analyses, review and incident reviews.

8.2 Critical activities

All rigging method statements, lift plans and other relevant documents will be reviewed by the Employer, prior to the relevant activity commencing. The review period for method statements is 14 days as provided on the Contract Data and if the Employer gives notice to the Contractor that a method statement fails to comply with the Contract, as per General Conditions Clause 5.2, it will be rectified and resubmitted within 7 days of notification. Compliance to the use of PPE, parking on designated areas, adherence to smoking policy, and trespassing, entry and exist to restricted areas will be monitored by the Contractor.

8.3 Electronic devise usage

Cell phone usage will be in accordance with Eskom procedure 36-583. No cellphone or any other electronic devices will be used whilst conducting critical work, and high risks activities unless otherwise authorized by the Employer. Such communication devise exclude two-way radios and devises used for the works.

8.4 Respecting the Working areas

In order to provide a safe working environment and to respect all persons on the Site, the following are strictly forbidden:

- Spitting
- Urination (other than in designated toilets)
- Defecation (other than in designated toilets)
- Sexual Activities

The Employer will be entitled to immediately remove, or instruct the Contractor to immediately remove, any person for whom the Contractor is responsible for who is in violation of the above, in accordance with applicable contract conditions and/or other rules and regulations.

8. Environmental

9.1 Environmental Policy

The Contractor will implement, and provide a copy of, an Environmental Policy which complies with Environmental Management System ISO 14001 requirements. A copy of the applicable policy will be provided as a tender returnable.

9.2 Method Statements

No activity will commence before Method statement is approved by the Employer. The Method Statement will be submitted for acceptance by the Employer. All Method Statements will include, but not be limited to include, the following environmental information:

Detailed scope of work

- List of equipment to be used
- List of chemicals to be used with complete MSDS's
- Risk Assessment of the Environmental Risks associated with the activities
- Management Plan of the identified significant risks
- Waste Management Plan
- Oil Spill Management Plan
- Incident reporting and management
- Layout plan approved by the Supervisor.
- Storm water management and erosion control plan

9.3 Environmental Management Programme

This Environmental Management Programme (EMPr) is prepared as part of the requirements of the 2010 Environmental Impact Assessment Regulations promulgated under the National Environmental Management Act (NEMA, Act 107 OF 1998) as amended 2010.

The purpose of this Construction EMPr is to provide an easily interpreted reference document that ensures that the project environmental commitments, safeguards and mitigation measures from the environmental planning documents, project approvals, and Scope of Works are implemented.

The objectives for the EMPr are:

a) To develop, implement and maintain effective management systems for the environmental aspects of the maintenance works;

b) To monitor effectiveness of controls aimed at preventing impacts associated with aspects

c) To ensure compliance with relevant legislation (National, Provincial and Local), regulatory requirements and environmental documents;

d) To maximise the value and outcomes of environmental monitoring activities so that the information can be applied to the planning and implementation of future projects;

e) To ensure that all Environmental Management considerations are implemented during the Construction only

The EMPr follows an approach of identifying an over-arching aim and objectives accompanied by management actions that are aimed at achieving these objectives. The EMPr is divided into five (5) phases of the project cycle:

- Planning and Design Phase;
- Construction and Site Preparation;
- Rehabilitation Phase;
- Operational Phase; and
- Project Closure.

Contractor to adhere with Project Environmental Management Plan (EMP), site information and other legislative requirements

9.4 Refuse Disposal

Waste disposal must be as per the ENV 0005

The Employer will provide special colour coded bins for refuse disposal. The Employer will be responsible for emptying these bins. The Contractor will ensure that all his personnel and SubContractors strictly adhere to the correct use of refuse bins, coloured coded as follows:

- Maroon bins:- Scrap metal only
- White bins: - Lagging and general household rubbish
- Yellow bins:- Ash, dust, coal dust and sand

For the entire duration of the Works, the Contractor is responsible for keep the Working Areas clean of any rubble, and to place all refuse into the bins provided.

9. Other reports and publicly available information

10.1 Weather Data

10.1.1 Geotechnical Data

Contractor is responsible for any Geotech required. The following geotechnical reports are provided as Appendices to this document:
Electricity Supply Commission- Report on the Additional Drilling for Proposed Remedial Works at the Main Station Building, Duvha Power Station November 1979, Parts 1 to 4
This is provided for information purposes only and the Contractor must verify before use.

a) General Weather Conditions

The climate of the site is typical of Highveld conditions, with high summer temperatures and moderate to cold winters. Temperature statistics for the climatically similar to Bethal was obtained from the South African Weather Service website (www.weathersa.co.za). The Contractor will consider whether condition within all working site including areas where procurement outside the working site is considered. Measuring device is available at Duvha and to be agreed upon by both parties.

Climatic conditions will be defined as exceptionally adverse only when the measured condition deviates from the supplied average data by a margin of 30%, over the time period as stated within the average data (e.g. daily or monthly)

b) Temperature

During the summer months (October to March) average daily maximum temperatures are between 24°C and 35°C and average daily minimum temperatures are between 0°C and 14°C.

In the winter months (April to September) average daily maximum temperatures vary between 17°C and 23°C and average daily minimum temperatures are between 1°C and 9°C.

c) Snow and mist

Frost occurs frequently during the winter and spring months. Temperature statistics for the climatically similar to Bethal was obtained from the South African Weather Service website (www.weathersa.co.za).

The number of days with mist (no visibility) measuring in excess of a predetermined number of days, the Employer will make a proposal during contract negotiations

All records will be kept.

d) Rainfall

The area experiences thunderstorms during the summer months, which usually occur in the late afternoons. The annual average precipitation (millimetres) is show below. Weather Data for 2011-2014 to be provided as an addendum

Month	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Jan	176	207	77.5	296	223.5	173	-	-	-	-	65
Feb	59	102	17	17	63.5	53	-	-	-	-	21.8
March	54	46	26	121	55	40	-	-	-	-	30.6
April	53	42	6	0	0	126	-	-	-	-	29.4
May	0	4.5	0	44	14	83	-	-	-	-	0
June	0	0	30	0	17	0	-	-	-	-	0.8
July	0	0	0	0	0	0	-	-	-	-	1
Aug	2	40	0	0	30.5	0	-	-	-	-	0.4
Sept	0	0	0	0	8	0	-	-	-	-	46.2
Oct	35.5	17.5	163	47	82.5	46.5	-	-	-	-	34.2
Nov	142	80	179	138.6	153	59.5	-	-	-	-	54.2
Dec	65	148.5	127.3	174	148	237	-	-	-	-	135.2
							-	-	-	-	
Total	**586.5**	**687.5**	**625.8**	**837.6**	**795**	**818**	-	-	-	-	**418.8**

e) Wind

The area is subject to winds predominantly from the north and northwest, with greatest frequency during the months of August to December. During the remainder of the year, the wind remains generally in a north/north westerly direction, but with a lesser frequency. Critical activities, carnage and working at height will be as per legislative requirements, equipment and plant use.