



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER

TENDER Number: E1537- Cluster 7 (Mthata)

NAME OF TENDERER: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER

**This tender closes at 11h00 on 06 December
2019.**

**The tender closing box is located at Environment House, 473 Steve Biko Road,
Arcadia, Pretoria**

NO LATE SUBMISSIONS WILL BE CONSIDERED

Issued by:

Department of Environmental Affairs
Environment House, 473 Steve Biko Road,
Arcadia
PRETORIA
SOUTH AFRICA
0001

Contact Name: Mr Ricardo Andrews / Ms
Berne van Wyk

Email: randrews@environment.gov.za / berne.vanwyk@vai.org.za



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E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER

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**PART T1:
TENDERING PROCEDURES**

T1.1 TENDER NOTICE AND INVITATION TO TENDER T5

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T1.1 TENDER NOTICE AND INVITATION TO TENDER

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The Department of Environmental Affairs (DEA), invites tenders from Contractors, E1537: **E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER**

The Contractor shall be registered in a CIDB Contractor Grading designation of 6 GB or higher..

Tender documents will be available through the Government eTender Portal (<http://www.etenders.gov.za>) and Department of Environmental Affairs website (www.environment.gov.za). the physical address for collection of tender documents is: **DEPARTMENT OF ENVIRONMENTAL AFFAIRS, 473 STEVE BIKO ROAD, ARCADIA, PRETORIA** (or enquire through the website www.environment.gov.za)

Technical queries relating to this tender may be addressed to:

Name: Mr Ricardo Andrews / Ms Berne van Wyk

E-MAIL: randrews@environment.gov.za / berne.vanwyk@vai.org.za

Supply chain and administrative queries relating to this tender may be addressed to:

Contact Person: Mr Samuel Mofokeng / Jonas Nkitseng

Tel: (012) 399 9057 or (012) 399 9056

E-mail: SMofokeng@environment.gov.za or jnkitseng@environment.gov.za

A **compulsory** briefing session will be held on **28 November 2019** from **10h00** for interested tenderers at the **SANBI, 2 CUSSONIA AVENUE, MEYERSPARK, PRETORIA**. This briefing session is compulsory.

Tenderers are requested to forward questions or matters for clarification in writing (per e-mail only to randrews@environment.gov.za / berne.vanwyk@vai.org.za SMofokeng@environment.gov.za

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or jnkitseng@environment.gov.za/smofokeng@environment.gov.za), as indicated in this tender document. They must be received not later than **16:00 on 02 December 2019**.

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The closing time for receipt of tenders is **11h00** on **06 December 2019**. Telegraphic, telephonic, telex, facsimile, electronic, e-mailed and late tenders will not be accepted.

TENDER DOCUMENTS MUST BE DEPOSITED IN THE TENDER BOX SITUATED AT: Environment House, 473 Steve Biko Road, Arcadia, Pretoria . Please enquire at reception.

Tenderers should ensure that tenders are delivered timeously to the correct address. If the tender is late, it will not be accepted for consideration.

The tender box is generally **open from 07h30 – 16h30** hours a day, 5 business days a week.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS – (NOT TO BE RE-TYP

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T1.2 TENDER DATA

The **Tender Data shall be read with the Standard Conditions of Tender** in order to expand on the Tenderer's obligations and the Employer's undertakings in administering the tender process in respect of the project under consideration.

The Tender Data hereafter shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

Each item of Tender Data given below is cross-referenced to the relevant clause in the Standard Conditions of Tender. **The Conditions of Tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement, as printed in Board Notice 136 of 2015 in the Government Gazette No. 38960 of 10 July 2015.**

The Standard Conditions of Tender make several references to the Tender Data which specifically applies to this tender. 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 Tender Data given below is cross-referenced to the relevant clause in the Standard Conditions of Tender.

Tender Data Applicable to this Tender

Clause Number	Data / Wording
F.1.2	<p>The Tender Documents consist of the following:</p> <p>(a) This Project Document, which contains the following:</p> <p>PART T1: TENDERING PROCEDURES</p> <p>T1.1 Tender Notice and Invitation to Tender T1.2 Tender Data</p> <p>PART T2: RETURNABLE DOCUMENTS</p> <p>T2.1 List of Returnable Documents T2.2 Returnable Schedules</p> <p>PART C1: AGREEMENTS AND CONTRACT DATA</p> <p>C1.1 Form of Offer and Acceptance C1.2 Contract Data C1.3 Form of Guarantee / Performance Security C1.4 Insurance Broker's Warranty</p> <p>PART C2: PRICING DATA</p> <p>C2.1 Pricing Instructions C2.2 Bill of Quantities</p> <p>PART C3: SCOPE OF WORKS</p> <p>C3.1 Scope of Works</p> <p>(b) 'FIDIC Conditions of Contract for PLANT and Design-Build for Electrical and Mechanical Plant and for Building and Engineering Works, Designed by the Contractor – First Edition 1999' This document is obtainable separately and Tenderers shall obtain their own copy.</p>



Clause Number	Data / Wording
	<p>(c) ‘The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations 2014 (Government Gazette No 37305 of 7 February 2014, Notice No R. 84)’. These documents are obtainable separately and Tenderers shall obtain their own copies.</p> <p>(d) The Construction Industry Development Board Act No. 38 of 2000 as amended and the Regulations in terms of the CIDB Act 38 of 2000, Government Notice No 692 of 9 June 2004 as amended.</p> <p>(e) The Preferential Procurement Policy Framework Act and the Preferential Procurement Regulation, 2017.</p> <p>(f) Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement, as printed in Board Notice 136 of 2015 in the Government Gazette No. 38960 of 10 July 2015.</p> <p>In addition Tenderers are advised, in their own interest, to obtain their own copies of all the relevant Acts, Regulations and Standards referred to in this document as they are essential for the Tenderer to become acquainted with the basics of construction management, the implementation of preferential construction procurement policies, and participation of targeted enterprises and labour.</p>
F.2.1	<p>1. Tendered offers will only be accepted if:</p> <p>(a) The tenderer has in his or her possession a copy of a valid Tax Clearance Certificate issued by the South African Revenue Services (SARS). It is compulsory to provide either of the aforementioned documents with the bid offer. Tenderers must have a valid Tax Clearance Certificate to contract with the Employer.</p> <p>(b) The tenderer or any of its directors/ shareholders/ trustees 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.</p> <p>(c) The tenderer submits a letter of intent from an approved South African bank/ insurer undertaking to provide the Performance Bond to the format included in tender document.</p> <p>(d) The tenderer is registered with the CIDB in an appropriate contractor grading designation. A certified copy of the CIDB registration document must accompany the tender offer.</p> <p>(e) The tenderer has not:</p> <p>(i) abused the Purchaser’s Supply Chain Management System; or</p> <p>(ii) failed to perform on any previous contract and has been given a written notice to this effect.</p>



Clause Number	Data / Wording
	<p>(f) The tender offer is signed by a person authorized to sign on behalf of the Tenderer.</p> <p>(g) The tenderer has completed the Compulsory Enterprise Questionnaire 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 Employer or potentially compromise the tender process.</p> <p>(h) Tenderers must provide certified copies of Compensation for Occupational Injuries and Diseases Act (COIDA) that it is in good standing with the compensation fund or with a licensed compensation insurer.</p> <p>(i) The Employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2003, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.</p> <p>(j) The tenderer has not failed to perform on any previous contracts and has not been given a written notice to the effect.</p> <p>(k) The tenderer has submitted certified copies of the directors, owners and shareholders identity documents with the tender offer.</p> <p>(l) A tenderer who submitted a tender as a joint venture has to include an acceptable joint venture agreement with his/ her tender or has provided a letter of intent to form a joint venture signed by all parties.</p> <p>(m) The tenderer is not in arrears for more than thirty (30) days with municipal rates and taxes and services charges.</p> <p>(n) The tenderer complies with the specifications and conditions applicable to the tender and submitted all the required documentation as stipulated in this tender document.</p> <p>(o) All tender documents must be initialled on each page and signed by the tenderer where indicated.</p> <p>The Contractor shall be registered in CIDB contractor grading designation of 6GB or higher and can provide evidence of having done similar work previously.</p> <p>2. The additional conditions of tender are:</p> <p>(a) DEA may also request that the tenderer provide written evidence that his/ her financial, labour and resources are adequate for carrying out the project.</p> <p>(b) The DEA reserves the right to appoint a firm of chartered accountants and auditors and/ or execute any other financial investigations on the financial resources of any tenderer. The tenderer shall provide all reasonable assistance in such investigations.</p>



Clause Number	Data / Wording
	<p>(c) Tender documents must be completed in black ink.</p> <p>(d) Corrections may not be made by means of a correction fluid such as Tipp-Ex or a similar product. In the event of a mistake having been made it shall be crossed out in ink and be accompanied by a full signature at each and every alteration. DEA reserves the right to reject the tender if corrections are not made in accordance with the above.</p>
F.2.7	There will be a compulsory briefing session held on 28 December 2019 at 10h00 at the SANBI, 2 CUSSONIA AVENUE, MEYERSPARK, PRETORIA
F.2.10	All Tenderers must be registered for Value Added Tax (VAT) with the South African Revenue Services (SARS).
F.2.13	<p>F.2.13.3 Tender offers shall be submitted as an original only. Under no circumstances whatsoever may the tender forms be retyped or redrafted. Photocopies of the original tender documentation may be used, but an original signature must appear on such photocopies.</p> <p>F.2.13.5 Tenderers must submit two (2) identical proposals for each bid clearly marked “ORIGINAL” and “COPY”.</p> <p>The submission of bids shall be in two (2) large envelopes (“ORIGINAL” and “COPY”) each inclosing three (3) separate envelopes as detailed in the BID SUBMISSION CHECKLIST below, and clearly marked on the outside of the respective envelope:</p> <p>ENVELOPE 1: “Qualification Documents”</p> <p>ENVELOPE 2: “Technical Proposal”</p> <p>ENVELOPE 3: “Financial Proposal” – sealed!</p> <p>The Financial Proposal shall be sealed and no financial information shall be contained in the “Qualification Documents” or “Technical Proposal”. If financial information is included in the “Qualification Documents” or in the “Technical Proposal” the tender may be rejected.</p> <p>The package shall display the following information:</p> <ul style="list-style-type: none"> • The address where Tenders have to be sent; • The title of the call for Tenders such as indicated in the invitation letter; • The Tenderer’s name, physical (street) and postal address, contact person and contact numbers (mobile, landline, facsimile and e-mail); • The following words clearly visible: “Invitation to Tender – Not to be opened by the Postal Service”. <p>The Employer’s address for delivery of tender offers and identification details to be shown on each tender offer package are:</p>



Clause Number	Data / Wording
	<p>Location of Tender Box: Department of Environmental Affairs</p> <p>Physical Address: 473 Steve Biko, Arcadia, Pretoria</p> <p>Identification Details: N/A</p> <p>F.2.13.6 A three-envelope system will be followed.</p>
F.2.15	<p>The closing time for submission of Tender Offers is: 11h00 on 06 December 2019</p> <p>Telegraphic, telephonic, telex, facsimile, electronic, e-mailed and late tenders will not be accepted.</p>
F.2.16	<p>The tender offer validity period is ninety (90) days from the closing time for submission of tenders.</p>
F.2.19	<p>This is not applicable.</p>
F.2.22	<p>This is not applicable.</p>
F.2.23	<p>The certificates as required in the Returnable Schedules and Forms must be provided with the tender for each party to a consortium / joint venture.</p>
F.3.4	<p>This shall be an open tender opening. The time and location for opening of the tender offers are:</p> <p>Envelope 1 Time: 11h00 Date: 06 December 2019 Location: Department of Environmental Affairs, Environment House, 473 Steve Biko Road, Arcadia, Pretoria</p> <p>Envelope 2 Time: 11h00 Date: 06 December 2019 Location: Department of Environmental Affairs, Environment House, 473 Steve Biko Road, Arcadia, Pretoria</p> <p>Envelope 3 Time: 11h00 Date: 06 December 2019 Location: Department of Environmental Affairs, Environment House, 473 Steve Biko Road, Arcadia, Pretoria</p>
F.3.5	<p>A two-envelope system will not be followed. Instead a three-envelope system will be followed. The evaluation thereof is described in F.3.11</p>
F.3.11	<p>Evaluation of tender offers</p> <p>F.3.11.1 The procedure for evaluation of responsive Tender Offers will be Stage 1, 2,3, 4 and 5:</p> <p>F.3.11.3 The evaluation of proposals will be separated into three stages: Stage 1: Pre-qualification Stage 2: Mandatory Stage 3: Qualification evaluation (Section 1 – “Qualification Documents”);</p>



Clause Number	Data / Wording												
	<p>Stage 4: Technical Functionality</p> <p>Stage 5: Price and B-BBEE evaluation (Section 3 – “Financial Proposal”).</p> <hr/> <p>Stage 2: Mandatory</p> <ul style="list-style-type: none"> ➤ CIDB Grading level minimum level GB6 or higher <p>Stage 1: Pre-qualification</p> <ul style="list-style-type: none"> ➤ Only service provider (s) who are EME or QSE, which are, at least 51% owned by black people will be considered for this bid as per Preferential Procurement Regulations 2017. Service provider (s) are required to submit an original or certified copy of the EME or QSE B-BBEE Status Level of contributor issued by SANAS only or an original or certified copy of DTI sworn affidavit in terms of Codes of good practice” indicating that service provider is an EME/ QSE. Failure to submit B-BBEE Status Level of contributor will result on bid being non-responsive or disqualified. <p>Stage 3: Qualification Evaluation</p> <ul style="list-style-type: none"> ➤ The eligibility is confirmed if the “Qualifying Documents” of the firm correspond to the stipulations indicated in Section 1 – “Qualifying Documents”. Only those tenderers, which fulfil all criteria of Stage 3, are eligible for the Stage 4 evaluation <div data-bbox="347 904 1369 1128" style="border: 1px solid black; background-color: #f2f2f2; padding: 10px; margin: 10px 0;"> <p style="text-align: center;">Prompts for Evaluation and the associated scores</p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 16.6%;">0</th> <th style="width: 16.6%;">1</th> <th style="width: 16.6%;">2</th> <th style="width: 16.6%;">3</th> <th style="width: 16.6%;">4</th> <th style="width: 16.6%;">5</th> </tr> </thead> <tbody> <tr> <td>No information to make assessment</td> <td>Poor</td> <td>Marginally falls short of requirements</td> <td>Meets requirements</td> <td>Exceeds requirements</td> <td>Exceeds requirements whilst adding value</td> </tr> </tbody> </table> </div> <p>Stage 4: Technical Evaluation</p> <p>Eligible tenders passing Stage 3 will be technically evaluated for functionality in accordance with the Stage 4 evaluation criteria. The Stage 4 evaluation criteria will be assessed in terms of six indicators, namely: No information to make assessment; Poor; Marginally falls short of meeting requirements; Meets requirements; Exceeds requirements; and Exceeds requirements whilst value adding. The scores of each of the evaluators will be weighted and totaled to obtain the final weighted score for Stage 4. The prompts for judgment and the associated scores used in the evaluation of quality shall be as follows:</p> <p>The evaluation of technical information will be guided by the following:</p> <ul style="list-style-type: none"> tenderer's understanding of the brief – the tender provides a clear indication that the tenderer fully understands the purpose and scope of the work and the tenderers’ own roles and functions in this regard; capability and experience – the tender provides a clear indication that the tenderer’s team comprises of people with the necessary experience, skills, qualifications and knowledge required to ensure maintenance and repairs of the highest standards of quality; track record – the tender provides clear information on previous, relevant projects that confirm that the tenderer has the required experience and success track record in the area; quality of the tender – the tender is structured, laid-out, formatted and organised in 	0	1	2	3	4	5	No information to make assessment	Poor	Marginally falls short of requirements	Meets requirements	Exceeds requirements	Exceeds requirements whilst adding value
0	1	2	3	4	5								
No information to make assessment	Poor	Marginally falls short of requirements	Meets requirements	Exceeds requirements	Exceeds requirements whilst adding value								



Clause Number	Data / Wording
	<p>The tenderer must score a minimum of 75 (seventy-five) weighted points out of 100 during Stage 4 (technical) of the evaluation to qualify for Stage 5 of the evaluation where only points for price (80) and B-BBEE (20) will be considered. The tenderers will be evaluated using the following evaluation criteria:</p>

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Stage 4																		
	Category																	
GUIDELINES FOR CATEGORY CRITERIA	FUNCTIONALITY (To be determine by project managers in line with scope of work): (GUIDELINES FOR CRITERIA APPLICATION)	Weight	Value/ Indicator	Total (Weight X Value awarded)														
<p>A proposed project plan, Methodology and Management of the project in construction, project management and qualified construction health and safety management experience.</p>	<ul style="list-style-type: none"> A details project plan with intermediate and final outputs and identified timeframes/ milestones. Proposed Methodology Management of the project <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">Project plan, methodology and project management in construction, project management and qualified construction health and safety management experience.</th> <th style="width: 20%;">Indicator</th> </tr> </thead> <tbody> <tr> <td>Project plan and methodology action well broken down; with detailed objectives and milestones.</td> <td style="text-align: center;">5</td> </tr> <tr> <td>Project plan and methodology, action identification basic; clear objectives and clear milestones.</td> <td style="text-align: center;">4</td> </tr> <tr> <td>Action plan provided with no deliverables and timeframes.</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Limited information provided on the action plan</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Task not well understood.</td> <td style="text-align: center;">1</td> </tr> <tr> <td>No information provided</td> <td style="text-align: center;">0</td> </tr> </tbody> </table>	Project plan, methodology and project management in construction, project management and qualified construction health and safety management experience.	Indicator	Project plan and methodology action well broken down; with detailed objectives and milestones.	5	Project plan and methodology, action identification basic; clear objectives and clear milestones.	4	Action plan provided with no deliverables and timeframes.	3	Limited information provided on the action plan	2	Task not well understood.	1	No information provided	0	35		
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<p>Certified Qualifications of key personnel to be assigned to the project.</p>	<p>Relevant qualification in the areas of in the build environment, construction project management and qualified construction health and safety management experience or equivalent.</p> <table border="1" data-bbox="336 398 1007 813"> <thead> <tr> <th>Qualifications of key personnel</th> <th>Indicator</th> </tr> </thead> <tbody> <tr> <td>A Masters qualification and above</td> <td>5</td> </tr> <tr> <td>An honours or equivalent qualification (s)</td> <td>4</td> </tr> <tr> <td>A degree qualification (s)</td> <td>3</td> </tr> <tr> <td>A three year diploma qualification (s)</td> <td>2</td> </tr> <tr> <td>Two years diploma or a certificates qualification (s)</td> <td>1</td> </tr> <tr> <td>No qualification (s) attached/ submitted</td> <td>0</td> </tr> </tbody> </table>	Qualifications of key personnel	Indicator	A Masters qualification and above	5	An honours or equivalent qualification (s)	4	A degree qualification (s)	3	A three year diploma qualification (s)	2	Two years diploma or a certificates qualification (s)	1	No qualification (s) attached/ submitted	0	<p>15</p>		
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<p>Technical Capability/ expertise and track record of key personnel to be assigned to the project in construction, project management and qualified construction health and safety management experience.</p>	<ul style="list-style-type: none"> Bidder (s) are required to demonstrate that they have the necessary resources and technical expertise to undertake and successfully complete the project. Bidder (s) should submit curriculum vitae for the key personnel proposed to be employed on the project. Curriculum vitae are to include specific details of these individuals including, inter alia, relevant experience and to include three contactable reference, technical qualifications and past experience in construction, project management and qualified construction health and safety management experience. <table border="1" data-bbox="336 1272 1007 1798"> <thead> <tr> <th>Experience of key personnel registered with SACPCMP in construction project management and construction health and safety management experience.</th> <th>Indicator</th> </tr> </thead> <tbody> <tr> <td>6 years 'or more experience</td> <td>5</td> </tr> <tr> <td>5 years' experience</td> <td>4</td> </tr> <tr> <td>4 years' experience</td> <td>3</td> </tr> <tr> <td>3 years' experience</td> <td>2</td> </tr> <tr> <td>1 - 2 years' experience</td> <td>1</td> </tr> <tr> <td>No experience</td> <td>0</td> </tr> </tbody> </table>	Experience of key personnel registered with SACPCMP in construction project management and construction health and safety management experience.	Indicator	6 years 'or more experience	5	5 years' experience	4	4 years' experience	3	3 years' experience	2	1 - 2 years' experience	1	No experience	0	<p>30</p>		
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1 - 2 years' experience	1																	
No experience	0																	



<p>The company's experience, track record and knowledge in the fields of construction management and project management</p>	<ul style="list-style-type: none"> Bidder (s) are required to demonstrate relevant past experience and competency of the company in construction, project management and qualified construction health and safety management experience. Bidder (s) should submit full details of, and at least three reliable contactable signed references for, projects of a similar scope which were successfully completed in the previous years in construction, project management and qualified construction health and safety management experience. <table border="1" data-bbox="336 1093 1007 1621"> <thead> <tr> <th data-bbox="336 1093 890 1216">Company experience in construction, project management and qualified construction health and management experience.</th> <th data-bbox="890 1093 1007 1216">Indicator</th> </tr> </thead> <tbody> <tr> <td data-bbox="336 1216 890 1283">10 years 'or more experience</td> <td data-bbox="890 1216 1007 1283">5</td> </tr> <tr> <td data-bbox="336 1283 890 1350">8-9 years' experience</td> <td data-bbox="890 1283 1007 1350">4</td> </tr> <tr> <td data-bbox="336 1350 890 1417">5-7 years' experience</td> <td data-bbox="890 1350 1007 1417">3</td> </tr> <tr> <td data-bbox="336 1417 890 1485">3-4 years' experience</td> <td data-bbox="890 1417 1007 1485">2</td> </tr> <tr> <td data-bbox="336 1485 890 1552">1-2 years' experience</td> <td data-bbox="890 1485 1007 1552">1</td> </tr> <tr> <td data-bbox="336 1552 890 1621">No experience</td> <td data-bbox="890 1552 1007 1621">0</td> </tr> </tbody> </table>	Company experience in construction, project management and qualified construction health and management experience.	Indicator	10 years 'or more experience	5	8-9 years' experience	4	5-7 years' experience	3	3-4 years' experience	2	1-2 years' experience	1	No experience	0	<p>20</p>		
Company experience in construction, project management and qualified construction health and management experience.	Indicator																	
10 years 'or more experience	5																	
8-9 years' experience	4																	
5-7 years' experience	3																	
3-4 years' experience	2																	
1-2 years' experience	1																	
No experience	0																	



Total points on functionality	100			
-------------------------------	-----	--	--	--

Clause Number	Data / Wording
	<p>Stage 5 Only those bidders, which fulfil all criteria of Stages 1, 2, 3 and 4, are eligible for the Stage 5 evaluations.</p>
	STAGE 3

B.	PRICE	80	
C.	B-BBEE Status Level Contributor	Number of points (80/20)	
	1	20	
	2	18	
	3	16	
	4	12	
	5	8	
	6	6	
	7	4	
	8	2	
	Non –compliant contributor	0	



Clause Number	Data / Wording
	<p>NB: A bid will not be disqualified from the bidding process if the bidder does not submit a certificate substantiating the B-BBEE status level of contribution or is a non-compliant contributor. Such a bidder will score zero (0) out of a maximum of 20 (twenty) points for B-BBEE.</p> <p><u>Scoring Preference points</u></p> <p>The tenderer is required to submit a BEE Verification Certificate in accordance with the Construction Sector Codes of Practice promulgated in Gazette 32305 on 5 June 2009 (see Returnable Schedule L). See also www.sanas.co.za for details of accredited Verification Agencies.</p> <p>Up to 100 tender evaluation points will be awarded to tenderers who submit responsive tenders and who are found to be eligible for the preference claimed. Points are based on a tenderer's scorecard measured in terms of the Broad-Based Black Economic Empowerment Act (B-BBEE, Act 53 of 2003) and the Regulations (2017) to the Preferential Procurement Policy Framework Act (PPPFA, Act 5 of 2000).</p> <p>Eligibility for preference points is subject to the following conditions:</p> <ul style="list-style-type: none"> (a) A tenderer's scorecard shall be based on the Construction Sector Codes of Practice promulgated in Government Gazette 32305 of 5 June 2009; and (b) The scorecard shall be submitted as a certificate attached to Returnable Schedule L; and (c) The certificate shall have been issued by a registered verification agency accredited by the South African National Accreditation System (SANAS), as contemplated in the B-BBEE Framework for Accreditation and Verification by all Verification Agencies promulgated in Government Notice 810 of 31 July 2009; and (d) The date of issue of the certificate must be less than 12 (twelve) months prior to the advertised tender closing date (see Tender Data F.2.15); and (e) Compliance with any other information requested to be attached to Returnable Schedule L. <p><u>Total Scores for Financial and Preference</u></p> <p>The points scored for a Tenderer in respect of Financial must be added to the points scored for the B-BBEE preferences. Only the tender with the highest number of points may be selected, except in those instances permissible by legislation, practice notes or relevant policies.</p>
F.3.13	<p>F.3.13.1 The legal requirements for acceptance of the tender offer are:</p> <ul style="list-style-type: none"> (a) Tender Defaulters Register - the Tenderer or any of its principals is <u>not</u> listed on the register of Tender Defaulters in terms of the Prevention and



Clause Number	Data / Wording
	<p>Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector.</p> <p>(b) Abuse of the SCM System - the Tenderer has <u>not</u> abused the Employer's Supply Chain Management System and has <u>not</u> been given a written notice to the effect that he has failed to perform on any previous contract.</p> <p>(c) Declaration - the Tenderer has indicated and declared whether or not a spouse, child or parent of the Tenderer is in the service of the State.</p> <p>(d) Fraud and Corruption - the Employer is satisfied that the Tenderer or any of his principals have <u>not influenced</u> the tender offer and acceptance by the following criteria:</p> <ul style="list-style-type: none"> (i) having offered, promised or given a bribe or other gift or remuneration to any person in connection with the obtaining of this Contract; (ii) having acted in a fraudulent or corrupt manner in obtaining this Contract; (iii) having approached an officer or employee of the Employer or the Employer's Agent with the object of influencing the award of a Contract in the Tenderer's favour; (iv) having entered into any agreement or arrangement, whether legally binding or not, with any other person, firm or company to refrain from Tendering for this Contract or as to the amount of the Tender to be submitted by either party; (v) having disclosed to any other person, firm or company other than the Employer, the exact or approximate amount of his proposed Tender. <p>The Employer may, in addition to using any other legal remedies, repudiate the Tender offer and acceptance and declare the Contract invalid should it have been concluded already.</p> <p>The DEA is not bound to select any of the firms submitting tenders. DEA reserves the right not to award any of the tenders, to award the contract to more than one Contractor, to award only part of the contract or not to award the contract to the tenderer with the lowest tendered price.</p>
F.3.14.1	<p>Before any work can commence all contractual documents must be signed by both parties (Department of Environmental Affairs (DEA) and the successful bidder) as well as the issue of an official purchase order and should there be any dispute regarding the finalization of the agreement, DEA reserves the right to cancel the contract with no cost implications for the Department.</p>
F.3.17	<p>The number of paper copies of the signed contract to be provided by the Employer is one (1).</p>



PART T2:
TENDERING RETURNABLES

T2.1 LIST OF RETURNABLE DOCUMENTS..... T20

T2.2 RETURNABLE DOCUMENTS T24



T2: RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

Tenderers are required to submit each of the following items with their tender as per the TENDER SUBMISSION CHECKLIST. Each item must be circled and submitted as indicated. These items are considered “gate keepers”. Failure to submit an item which is a gatekeeper will result in the tender declared non-responsive and as a result disqualified.

TENDER SUBMISSION CHECKLIST			
	Tender split into “Qualification Documents”, “Technical Proposal” and “Financial Proposal” sections as detailed in F.2.13.5	Yes/ No	-

Envelope 1 – “Qualification Documents”			
Ref	Item	Check	Envelope
A	Completed Bid Submission Checklist – Envelope 1	Yes/ No	1
B	Record of Addenda to Tender Documents	Yes/ No	1
C	Compulsory Enterprise Questionnaire	Yes/ No	1
D	SBD 1 – Invitation to Bid		
E	SBD 2 – Tax Clearance Certificate Requirements	Yes/ No	1
F	SBD 4 – Declaration of interest	Yes/ No	1
G	SBD 5 – The National Industrial Participation Programme	Yes/ No	1
H	SBD 6.1 – Preference points claim form in terms of the preferential procurement regulations 2017	Yes/ No	1
I	Certificate substantiating the B-BBEE status level of contribution	Yes/ No	1
J	SBD 8.1 – Declaration of bidder’s past Supply Chain Management practices	Yes/ No	1
K	SBD 8.2 – Declaration of Undertaking	Yes/ No	1
L	SBD 9 – Certificate of Independent bid determination	Yes/ No	1
M	BAS Entity Maintenance Form	Yes/ No	1
N	Conflict of Interest Declaration	Yes/ No	1
O	Resolution by Directors/ Members/ Trustees	Yes/ No	1
P	Certificate of Authority for Partnership/ Joint Ventures/ Consortiums	Yes/ No	1
Q	Supplier Account Detail	Yes/ No	1
R	Partnership/ Joint Venture/ Consortium Agreement	Yes/ No	1



Envelope 1 – “Qualification Documents”			
Ref	Item	Check	Envelope
S	Declaration for Procurement above R10 million (all applicable taxes included)	Yes/ No	1
T	Financial statements for the past three years	Yes/ No	1
U	Municipal accounts or lease agreement and letter from landlord indicating payment of municipal accounts	Yes/ No	1
V	Details of insurance cover	Yes/ No	1
W	Valid Construction Industry Development Board (CIDB) Certificate	Yes/ No	1
X	Compensation for Occupational Injuries and Diseases Act (COIDA) Letter of Good Standing	Yes/No	1
Y	Enterprise Registration Certificate	Yes/ No	1
AA	Certified Identification documents	Yes/ No	1
AB	Company share certificates	Yes/ No	1
AC	CENTRAL SUPPLIER DATABASE	Yes/ No	1
AD	Complete tender document	Yes/ No	1

Envelope 2 – “Technical Proposal”			
Ref.	Item	Check	Envelope
AE	Completed Bid Submission Checklist – Envelope 2	Yes/ No	2
AF	UNPRICED Bill of Quantities	Yes/ No	2
AG	Schedule of work	Yes/ No	2
AH	Proposed key personnel	Yes/ No	2
AI	Qualifications and professional registration of key personnel	Yes/ No	2
AJ	Project organizational chart	Yes/ No	2
AK	Reference letters for EPC/ turnkey contracts	Yes/ No	2
AL	Project Program	Yes/ No	2
AM	Method Statement	Yes/ No	2
AN	Schedule of Plant and Equipment	Yes/ No	2
AO	Data sheets of plant/ equipment	Yes/No	2
AP	Contract Price Adjustment Formula	Yes/No	2
AQ	FOREX Component Details	Yes/No	2
AR	Deviations and Qualifications	Yes/No	2



Envelope 3 – “Financial Proposal”			
No.	Item	Check	Envelope
AS	Completed Bid Submission Checklist – Envelope 3	Yes/ No	3
AT	Pricing Schedule	Yes/ No	3
AU	Project Cash Flow	Yes/ No	3
AV	PRICED Bill of Quantities	Yes/ No	3



2.2 RETURNABLE SCHEDULES

A	Completed Bid Submission Checklist – Envelope 1	T26
B	Record of Addenda to Tender Documents	T28
C	Compulsory Enterprise Questionnaire	T29
D	SBD 1 – Invitation to Bid	T39
E	SBD 2 – Tax Clearance Certificate Requirements	T41
F	SBD 4 – Declaration of interest	T44
G	SBD 5 – The National Industrial Participation Programme	T47
H	SBD 6.1 – Preference points claim form in terms of the preferential procurement regulations 2017	T50
I	B-BBEE Certificate	T57
J	SBD 8.1 – Declaration of bidder’s past Supply Chain Management practices	T58
K	SBD 8.2 – Declaration of Undertaking	T60
L	SBD 9 – Certificate of Independent bid determination	T61
M	BAS Entity Maintenance Form	T75
N	Conflict of Interest Declaration	T78
O	Resolution by Directors/ Members/ Trustees	T79
P	Certificate of Authority for Partnership/ Joint Ventures/ Consortiums	T81
Q	Supplier Account Detail	T83
R	Partnership/ Joint Venture/ Consortium Agreement	T84
S	Declaration for Procurement above R10 million (all applicable taxes included)	T85
T	Financial statements for the past three years	T87
U	Municipal accounts or lease agreement and letter from landlord indicating payment of municipal accounts	T88
V	Details of insurance cover	T89
W	Valid Construction Industry Development Board (CIDB) certificate	T90
X	Compensation for Occupational Injuries and Diseases Act (COIDA) Letter of Good Standing	T91
Y	Enterprise Registration Certificate	T92
AA	Certified Identification documents	T93
AB	Company share certificates	T94
AC	CENTRAL SUPPLIER DATABASE	T95
AD	Complete tender document	T96
AE	Completed Bid Submission Checklist – Envelope 2	T97
AF	Bill of Quantities	T98
AG	Schedule of work	T99
AH	Proposed key personnel	T100



AI	Qualifications and professional registration of key personnel	T101
AJ	Project organisational chart	T102
AK	Reference letters for EPC/ turnkey contracts	T103
AL	Project Program	T104
AM	Method Statement	T105
AN	Schedule of Plant and Equipment	T106
AO	Data sheets of plant/ equipment	T108
AP	Contract Price Adjustment Formula	T109
AQ	FOREX Component Details	T110
AR	Deviations and Qualifications	T111
AS	Completed Bid Submission Checklist – Envelope 3	T112
AT	Pricing Schedule	T113
AU	Project Cash Flow	T116
AV	PRICED Bills of Quantities	T117

NOTE: The Tenderer is required to complete each and every schedule and form listed above to the best of his ability as the evaluation of tenders and the eventual contract will be based on the information provided by the Tenderer. Failure of a Tenderer to complete the schedules and forms to the satisfaction of the Employer **shall** lead to rejection on the grounds that the tender is not responsive



A. BID SUBMISSION CHECKLIST – ENVELOPE 1

Envelope 1 – “Qualification Documents”			
Ref	Item	Check	Envelope
A	Completed Bid Submission Checklist – Envelope 1	Yes/ No	1
B	Record of Addenda to Tender Documents	Yes/ No	1
C	Compulsory Enterprise Questionnaire	Yes/ No	1
D	SBD 1 – Invitation to Bid		
E	SBD 2 – Tax Clearance Certificate Requirements	Yes/ No	1
F	SBD 4 – Declaration of interest	Yes/ No	1
G	SBD 5 – The National Industrial Participation Programme	Yes/ No	1
H	SBD 6.1 – Preference points claim form in terms of the preferential procurement regulations 2017	Yes/ No	1
I	B-BBEE Certificate	Yes/ No	1
J	SBD 8.1 – Declaration of bidder's past Supply Chain Management practices	Yes/ No	1
K	SBD 8.2 – Declaration of Undertaking	Yes/ No	1
L	SBD 9 – Certificate of Independent bid determination	Yes/ No	1
M	BAS Entity Maintenance Form	Yes/ No	1
N	Conflict of Interest Declaration	Yes/ No	1
O	Resolution by Directors/ Members/ Trustees	Yes/ No	1
P	Certificate of Authority for Partnership/ Joint Ventures/ Consortiums	Yes/ No	1
Q	Supplier Account Detail	Yes/ No	1
R	Partnership/ Joint Venture/ Consortium Agreement	Yes/ No	1
S	Declaration for Procurement above R10 million (all applicable taxes included)	Yes/ No	1
T	Financial statements for the past three years	Yes/ No	1
U	Municipal accounts or lease agreement and letter from landlord indicating payment of municipal accounts	Yes/ No	1
V	Details of insurance cover	Yes/ No	1
W	Valid Construction Industry Development Board (CIDB) Certificate	Yes/ No	1
X	Compensation for Occupational Injuries and Diseases Act (COIDA) Letter of Good Standing	Yes/No	1
Y	Enterprise Registration Certificate	Yes/ No	1
AA	Certified Identification documents	Yes/ No	1



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

Envelope 1 – “Qualification Documents”			
Ref	Item	Check	Envelope
AB	Company share certificates	Yes/ No	1
AC	CENTRAL SUPPLIER DATABASE	Yes/ No	1
AD	Complete tender document	Yes/ No	1



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

C. COMPULSORY ENTERPRISE QUESTIONNAIRE

FORM C: PART 1: PARTICULARS AND RECORD OF SERVICE OF THE STATE

The following particulars must be furnished:

Section 1: Name of enterprise:			
Section 2: VAT registration number:			
Section 3: CIDB registration number:			
Section 4: Particulars of sole proprietors and partners in partnerships			
Name*	Identity number*	Personal income tax number*	
* Complete only if sole proprietor or partnership, and attach separate page if more than three 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 serving or has served within the last 12 months as any of the following:			
a member of Parliament a member of the National Assembly or the National Council of Provinces a member of any provincial legislature a member of any municipal council a member of the board of directors of any municipal entity a member of an accounting authority of any national or provincial public entity	an employee of Parliament or a provincial legislature an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) an employee of any municipality or municipal entity		
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 served and position held**	Status of service (tick appropriate column)**	
		Current	Within last 12 months
** Attach additional pages if more space is required			



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

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 serving or has served within the last 12 months as any of the following:

a member of Parliament	an employee of Parliament or a provincial legislature
a member of the National Assembly or the National Council of Provinces	an employee of any national or 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 any provincial legislature	an employee of any municipality or municipal entity
a member of any municipal council	
a member of the board of directors of any municipal entity	
a member of an accounting authority of any national or provincial public entity	

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

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

*** Attach additional pages if more space is required

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

- (i) Authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- (ii) confirms that neither the name of the enterprise nor 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, has within the last five years been convicted of fraud or corruption;
- (iv) confirms that I am not / we are not associated, linked or involved with any other tendering entities submitting tender offers and that I / we 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;
- (v) confirms that the information provided above in Sections 1 to 7 of Form C: Part 1 is within my personal knowledge and is to the best of my belief both true and correct.



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

Signed:

Date:

Name:

Position:

Enterprise name:



DEPARTMENT OF ENVIRONMENTAL AFFAIRS
FORM C: PART 2: DECLARATION OF INTEREST

Every question must be answered individually on this form and the required information must be provided, whether a relationship is present or not. Failure to do so will invalidate your tender.

1. Any legal person, including persons employed by the State¹, or persons having a kinship with persons employed by the State, including a blood relationship, may make an offer or offers in terms of this invitation to tender. In view of possible allegations of favouritism, should the resulting tender, or part thereof, be awarded to persons employed by the State, or to persons connected with or related to them, it is required that the tenderer or his/her authorised representative declare whether:
 - the tenderer is employed by the State; and/or
 - the legal person (tendering entity) on whose behalf the tender document is signed, has a relationship with persons/a person who are/is involved in the evaluation and/or adjudication of the tender(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the tender.
2. **In order to give effect to the above, the following questions must be answered and the required information provided and submitted with the tender.**
 - 2.1. The names of all directors/ shareholders²/members/partners/individual owners/trustees and their individual identity numbers and tax reference numbers are to be inserted in the table below. If applicable, State Employee / PERSONNEL numbers must be indicated in the last column.

Full Name	Position held (director, shareholder, member, partner, individual owner, trustee, etc.)	Identity Number	Personal Income Tax Reference Number	State Employee Number / Personnel Number if applicable

If the space provided above is insufficient, details as specified above can be attached on separate pages. However, if such separate pages are attached, this must be clearly indicated in the table above.

¹“State” means:

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) any provincial legislature;
- (d) the National Assembly or the National Council of Provinces; or
- (e) Parliament.

²“shareholder” means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

2.2. Full names of tenderer or his or her representative:

.....

2.3. Identity Number:

.....

2.4. Position (e.g., director/shareholder/member/partner/individual owner/trustee) occupied in the company/close corporation/partnership/sole proprietorship/trust (referred to hereinafter as the "tendering entity"):

.....

2.5. Registration number of tendering entity:

.....

2.6. Tax reference number of tendering entity:

.....

2.7. VAT registration number of tendering entity:

.....

If the space provided for any of paragraphs 2.8 to 2.14 below is insufficient, the required information can be attached on separate pages. However, if such separate pages are attached, this must be clearly indicated in the relevant paragraph below.

2.8. Are you or any person connected with the tenderer presently employed by the State? **Kindly mark the applicable answer with a tick** ✓.

YES	<input type="checkbox"/>
NO	<input type="checkbox"/>

If yes, furnish the following particulars:

2.8.1. Name of director/shareholder/member/partner/individual owner/trustee/other connected person:

.....

2.8.2. Name of State institution which employs you or the person connected to the tenderer:

.....

2.8.3. Position occupied in the State institution:

.....

2.8.4. Any other particulars:

.....

.....

.....



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

2.9. If the State presently employs you or any person connected with the tenderer, was the appropriate authority to undertake remunerative work outside employment in the public sector obtained from the State? **Kindly mark the applicable answer with a tick** ✓.

YES	
NO	

2.9.1. If yes, attach proof of such authority to the tender document. (Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the tender). **Kindly mark the applicable block with a tick** ✓ **to indicate whether such proof has been attached to the tender document.**

YES	
NO	

2.9.2. If no, furnish reasons for the non-submission of such proof:

.....

.....

.....

2.10. Did you or your spouse or any of the tendering entity's directors/shareholders/members/partners/individual owners/trustees or their spouses conduct business with the State in the previous twelve months? **Kindly mark the applicable answer with a tick** ✓.

YES	
NO	

2.10.1. If yes, furnish particulars:

.....

.....

.....

2.11. Do you or any person connected with the tenderer have any relationship (family, friend, other) with a person employed by the State and who may be involved with the evaluation or adjudication of the tender? **Kindly mark the applicable answer with a tick** ✓.

YES	
NO	

2.11.1. If yes, furnish particulars:

.....

.....

.....



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

2.12. Are you or any person connected with the tenderer aware of any relationship (family, friend, other) between any other tenderer and any person employed by the State who may be involved with the evaluation and/or adjudication of this tender? **Kindly mark the applicable answer with a tick** ✓.

YES	<input type="checkbox"/>
NO	<input type="checkbox"/>

2.12.1. If yes, furnish particulars:

.....

.....

.....

2.13. Do you or any of the tendering entity's directors/shareholders/members/partners/individual owners/trustees have any interest in any other related companies that are or could be tendering for this contract? **Kindly mark the applicable answer with a tick** ✓.

YES	<input type="checkbox"/>
NO	<input type="checkbox"/>

2.13.1. If yes, furnish particulars:

.....

.....

.....

2.14. Have you or any of the tendering entity's directors/shareholders/members/partners/ individual owners /trustees or the tendering entity in general provided any gifts, rewards, awards, sponsorships, donations or hospitality to the Department of Environmental Affairs or any of its employees or their families in the last 12 months? **Kindly mark the applicable answer with a tick** ✓.

YES	<input type="checkbox"/>
NO	<input type="checkbox"/>

2.14.1. If yes, furnish particulars, including the estimated value:

.....

.....

.....



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

3. DECLARATION

I, THE UNDERSIGNED (*full name of signatory*)

REPRESENTING (*name of tendering entity*)

IN MY CAPACITY AS

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPH 2 ABOVE IS CORRECT (WHERE APPLICABLE, I HAVE TAKEN REASONABLE DILIGENT STEPS AS REQUIRED BY S76 OF THE COMPANIES ACT, 2011, TO ENSURE THAT THE INFORMATION PROVIDED IS CORRECT).

I ACCEPT THAT THE STATE MAY REJECT THE TENDER OR ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

SIGNATURE:

DATE:



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

FORM C: PART 3: CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying tender:

Provision of works as detailed in E1537 for the period stated in E1537.... **REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER.**

in response to the invitation for the tender made by:

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: that:
(Name of Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

I have read and I understand the contents of this Certificate;
 I understand that the accompanying tender will be disqualified if this Certificate is found not to be true and complete in every respect;
 I am authorized by the tenderer to sign this Certificate, and to submit the accompanying tender, on behalf of the tenderer;
 Each person whose signature appears on the accompanying tender has been authorized by the tenderer to determine the terms of and to sign the tender, on behalf of the tenderer.

For the purposes of this Certificate and the accompanying tender, I understand that the word “competitor” shall include any individual or organization, other than the tenderer, whether or not affiliated with the tenderer, who:

- (a) has been requested to submit a tender in response to this tender invitation;
- (b) could potentially submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and
- (c) provides the same goods and services as the tenderer and/or is in the same line of business as the tenderer.

The tenderer has arrived at the accompanying tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium will not be construed as collusive tendering.

In particular, without limiting the generality of the preceding paragraphs above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

- (a) prices;
- (b) geographical area where the products or services will be rendered (market allocation);
- (c) methods, factors or formulas used to calculate prices;
- (d) the intention or decision to submit or not submit a tender;
- (e) the submission of a tender which does not meet the specifications and conditions of the tender; or
- (f) tendering with the intention not to win the tender.

In addition, there have been 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 which this tender invitation relates.

The terms of the accompanying tender have not been, and will not be, disclosed by the tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening and of the awarding of the contract.

I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders 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 such tenderers 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.

.....
 Signature

.....
 Date

.....
 Full name of signatory

.....
 Capacity of signatory



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D. SBD 1 – INVITATION TO BID

PART A

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/ PUBLIC ENTITY)

BID NUMBER:	1537	CLOSING DATE:	06-12-2019	CLOSING TIME:	11:00
-------------	------	---------------	------------	---------------	-------

DESCRIPTION	E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER
-------------	---

THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).

BID RESPONSE DOCUMENTS SHOULD BE DEPOSITED IN
THE BID BOX SITUATED AT (STREET ADDRESS)

Department of Environmental Affairs; The Environment House,

473 Steve Biko Road; Cnr Soutpansberg and Steve Biko Road,

Arcadia Pretoria /Tshwane

SUPPLIER INFORMATION

NAME OF BIDDER

POSTAL ADDRESS

STREET ADDRESS

TELEPHONE
NUMBER

CODE

NUMBER

CELLPHONE
NUMBER

FACSIMILE
NUMBER

CODE

NUMBER

E-MAIL ADDRESS

VAT REGISTRATION
NUMBER

TCS PIN:

OR

CSD No:

B-BBEE STATUS
LEVEL
VERIFICATION
CERTIFICATE

Yes

B-BBEE
STATUS
LEVEL
SWORN
AFFIDAVIT

Yes

[TICK APPLICABLE
BOX]

No

No

E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER



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IF YES, WHO WAS THE CERTIFICATE ISSUED BY?			
AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA) AND NAME THE APPLICABLE IN THE TICK BOX	<input type="checkbox"/>	AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA)	
	<input type="checkbox"/>	A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN ACCREDITATION SYSTEM (SANAS)	
	<input type="checkbox"/>	A REGISTERED AUDITOR NAME:	
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/SWORN AFFIDAVIT(FOR EMEs& QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]			
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED? [IF YES ENCLOSE PROOF]	<input type="checkbox"/> Yes <input type="checkbox"/> No	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED? [IF YES ANSWER PART B:3 BELOW]	<input type="checkbox"/> Yes <input type="checkbox"/> No
SIGNATURE OF BIDDER	.....	DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED (Attach proof of authority to sign this bid; e.g. resolution of directors, etc.)			
TOTAL NUMBER OF ITEMS OFFERED			
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:	TECHNICAL INFORMATION MAY BE DIRECTED TO:		
DEPARTMENT/ PUBLIC ENTITY	National Department of Environmental Affairs	CONTACT PERSON	Mr Ricardo Andrews / Ms Berne van Wyk
CONTACT PERSON	Mr Jonas Nkitseng or Mr Samuel Mofokeng	TELEPHONE NUMBER	012 399 9793 / 399 9852
TELEPHONE NUMBER	012 399 9056/9057	FACSIMILE NUMBER	
FACSIMILE NUMBER		E-MAIL ADDRESS	randrews@environment.gov.za / berne.vanwyk@vai.org.za
E-MAIL ADDRESS	jnkitseng@environment.gov.za / Smofokeng@environment.gov.za		



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**PART B
TERMS AND CONDITIONS FOR BIDDING**

1. BID SUBMISSION:	
1.1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2.	ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED-(NOT TO BE RE-TYPED) OR ONLINE
1.3.	BIDDERS MUST REGISTER ON THE CENTRAL SUPPLIER DATABASE (CSD) TO UPLOAD MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS; AND BANKING INFORMATION FOR VERIFICATION PURPOSES). B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B-BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.
1.4.	WHERE A BIDDER IS NOT REGISTERED ON THE CSD, MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS MAY NOT BE SUBMITTED WITH THE BID DOCUMENTATION. B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B-BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.
1.5.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER LEGISLATION OR SPECIAL CONDITIONS OF CONTRACT.
2. TAX COMPLIANCE REQUIREMENTS	
2.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3	APPLICATION FOR TAX COMPLIANCE STATUS (TCS) OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.
2.4	BIDDERS MAY ALSO SUBMIT A PRINTED TCS TOGETHER WITH THE BID.
2.5	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE PROOF OF TCS / PIN / CSD NUMBER.
2.6	WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS	
3.1.	IS THE BIDDER A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.2.	DOES THE BIDDER HAVE A BRANCH IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.3.	DOES THE BIDDER HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.4.	DOES THE BIDDER HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO



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IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN, IT IS NOT A REQUIREMENT TO OBTAIN A TAX COMPLIANCE STATUS / TAX COMPLIANCE SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

—



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F. SBD 4 – DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹
2. Any legal person, including persons employed by the state, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, 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 state; and/ or
 - the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.
3. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**
 - 3.1 Full Name of bidder or his or her representative: _____
 - 3.2 Identity Number: _____
 - 3.3 Position occupied in the Company (director, trustee, shareholder², member: _____
 - 3.4 Registration number of company, enterprise, close corporation, partnership agreement or trust: _____
 - 3.5 Tax Reference Number: _____
 - 3.6 VAT Registration Number: _____
 - 3.7 The names of all directors/ trustees/ shareholders/ members, their individual identity numbers, tax reference numbers and, if applicable, employee/ PERSAL numbers must be indicated in paragraph 4 below.

¹ *MSCM Regulations: "in the service of the state" means to be –*

(a) a member of –

- (i) any municipal council;*
- (ii) any provincial legislature; or*
- (iii) the national Assembly or the national Council of provinces;*

(b) a member of the board of directors of any municipal entity;

(c) an official of any municipality or municipal entity;

(d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999); (e) a member of the accounting authority of any national or provincial public entity; or (f) an employee of Parliament or a provincial legislature.

² *Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.*



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3.8 Are you presently in the service of the state? **YES / NO**

3.8.1 If yes, furnish particulars

3.9 Have you been in the service of the state for the past twelve months? **YES / NO**

3.9.1 If yes, furnish particulars

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

3.10.1 If yes, furnish particulars

3.11 Are you, aware of any relationship (family, friend, other) between any other tenderer and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

3.11.1 If yes, furnish particulars

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

3.12.1 If yes, furnish particulars

3.13 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

3.13.1 If yes, furnish particulars

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract? **YES / NO**

3.14.1 If yes, furnish particulars

4. Full details of directors / trustees / members / shareholders

Full Name	Identity Number	Personal Income Tax Number	te Employee Number



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The tenderer hereby certifies that the information set out in this schedule and/ or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/ or (in the event that the tenderer is successful) the cancellation of the contract and/ or steps in terms of the Abuse Policy.

5 DECLARATION

I, THE UNDERSIGNED (NAME).....

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2, 3 and 4 ABOVE IS CORRECT. I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder



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G. SBD 5 – THE NATIONAL INDUSTRIAL PARTICIPATION PROGRAMME
INTRODUCTION

The National Industrial Participation (NIP) Programme, which is applicable to all government procurement contracts that have an imported content, became effective on the 1 September 1996. The NIP policy and guidelines were fully endorsed by Cabinet on 30 April 1997. In terms of the Cabinet decision, all state and parastatal purchases / lease contracts (for goods, works and services) entered into after this date, are subject to the NIP requirements. NIP is obligatory and therefore must be complied with. The Industrial Participation Secretariat (IPS) of the Department of Trade and Industry (DTI) is charged with the responsibility of administering the programme.

1 PILLARS OF THE PROGRAMME

- 1.1 The NIP obligation is benchmarked on the imported content of the contract. Any contract having an imported content equal to or exceeding US\$ 10 million or other currency equivalent to US\$ 10 million will have a NIP obligation. This threshold of US\$ 10 million can be reached as follows:
- (a) Any single contract with imported content exceeding US\$10 million. or
 - (b) Multiple contracts for the same goods, works or services each with imported content exceeding US\$3 million awarded to one seller over a two (2) year period which in total exceeds US\$10 million. or
 - (c) A contract with a renewable option clause, where should the option be exercised the total value of the imported content will exceed US\$10 million. or
 - (d) Multiple suppliers of the same goods, works or services under the same contract, where the value of the imported content of each allocation is equal to or exceeds US\$ 3 million worth of goods, works or services to the same government institution, which in total over a two (2) year period exceeds US\$10 million.
- 1.2 The NIP obligation applicable to suppliers in respect of sub-paragraphs 1.1 (a) to 1.1 (c) above will amount to 30 % of the imported content whilst suppliers in respect of paragraph 1.1 (d) shall incur 30% of the total NIP obligation on a *pro-rata* basis.
- 1.3 To satisfy the NIP obligation, the DTI would negotiate and conclude agreements such as investments, joint ventures, sub-contracting, licensee production, export promotion, sourcing arrangements and research and development (R&D) with partners or suppliers.
- 1.4 A period of seven years has been identified as the time frame within which to discharge the obligation.

2 REQUIREMENTS OF THE DEPARTMENT OF TRADE AND INDUSTRY

- 2.1 In order to ensure effective implementation of the programme, successful bidders (contractors) are required to, immediately after the award of a contract that is in excess of R10 million (ten million Rand), submit details of such a contract to the DTI for reporting purposes.
- 2.2 The purpose for reporting details of contracts in excess of the amount of R10 million (ten million Rand) is to cater for multiple contracts for the same goods, works or services; renewable



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contracts and multiple suppliers for the same goods, works or services under the same contract as provided for in paragraphs 1.1.(b) to 1.1. (d) above.

3 BID SUBMISSION AND CONTRACT REPORTING REQUIREMENTS OF BIDDERS AND SUCCESSFUL BIDDERS (CONTRACTORS)

- 3.1 Bidders are required to sign and submit this Standard Bidding Document (SBD 5) together with the bid on the closing date and time.
- 3.2 In order to accommodate multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as indicated in sub-paragraphs 1.1 (b) to 1.1 (d) above and to enable the DTI in determining the NIP obligation, successful bidders (contractors) are required, immediately after being officially notified about any successful bid with a value in excess of R10 million (ten million Rands), to contact and furnish the DTI with the following information:
- (a) Bid / contract number.
 - (b) Description of the goods, works or services.
 - (c) Date on which the contract was accepted.
 - (d) Name, address and contact details of the government institution.
 - (e) Value of the contract.
 - (f) Imported content of the contract, if possible.
- 3.3 The information required in paragraph 3.2 above must be sent to the Department of Trade and Industry, Private Bag X 84, Pretoria, 0001 for the attention of Mr Elias Malapane within five (5) working days after award of the contract. Mr Malapane may be contacted on telephone (012) 394 1401, facsimile (012) 394 2401 or e-mail at Elias@thedti.gov.za for further details about the programme.

4 PROCESS TO SATISFY THE NIP OBLIGATION

- 4.1 Once the successful bidder (contractor) has made contact with and furnished the DTI with the information required, the following steps will be followed:
- (i) the contractor and the DTI will determine the NIP obligation;
 - (ii) the contractor and the DTI will sign the NIP obligation agreement;
 - (iii) the contractor will submit a performance guarantee to the DTI;
 - (iv) the contractor will submit a business concept for consideration and approval by the DTI;
 - (v) upon approval of the business concept by the DTI, the contractor will submit detailed business plans outlining the business concepts;
 - (vi) the contractor will implement the business plans; and
 - (vii) the contractor will submit bi-annual progress reports on approved plans to the DTI.
- 4.2 The NIP obligation agreement is between the DTI and the successful bidder (contractor) and, therefore, does not involve the purchasing institution.



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Bid number ... REF. NR. E1537	Closing date: 06 December 2019
Name of bidder.....	
Postal address	
.....	
Signature.....	Name (in print).....
Date.....	

E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER



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H. SBD 6.1 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

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 MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

1. GENERAL CONDITIONS

- 1.1 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).
- 1.2
- a) The value of this bid is estimated not to exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable; or
- 1.3 Points for this bid shall be awarded for:
- (a) Price; and
- (b) B-BBEE Status Level of Contributor.
- 1.4 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTOR	20
Total points for Price and B-BBEE must not exceed	100

- 1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.6 The purchaser 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 purchaser.
- 2. DEFINITIONS**
-



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- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **“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;
- (c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) **“EME”** means an Exempted Micro Enterprise 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;
- (f) **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) **“prices”** includes all applicable taxes less all unconditional discounts;
- (h) **“proof of B-BBEE status level of contributor”** means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) **“QSE”** means a qualifying small business enterprise 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;
- (j) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

3.1 80/20 PREFERENCE POINT SYSTEMS

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

or 80/20

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

Where

P_s = Points scored for price of bid under consideration

P_t = Price of bid under consideration


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P_{min} = Price of lowest acceptable bid

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

- 4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, 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 Status Level of Contributor	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

5. BID DECLARATION

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

6. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

- 6.1 B-BBEE Status Level of Contributor: . = maximum 10 points
(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.)

7. SUB-CONTRACTING

- 7.1 Will any portion of the contract be sub-contracted?

(*Tick applicable box*)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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7.1.1 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
(Tick applicable box)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:

Designated Group: An EME or QSE which is at last 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One person business/sole propriety
- Close corporation
- Company
- (Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....

.....



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8.6 COMPANY CLASSIFICATION

- Manufacturer
- Supplier
- Professional service provider
- Other service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 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-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) 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;
 - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury 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; and
 - (e) forward the matter for criminal prosecution.

WITNESSES

1.

2.

.....

SIGNATURE(S) OF BIDDERS(S)

DATE:

RA
ST
AT



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J. SBD 8.1 – DECLARATION OF BIDDER’S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Standard Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be disregarded if that bidder, or any of its directors have-
 - (a) abused the institution’s supply chain management system;
 - (b) committed fraud or any other improper conduct in relation to such system; or
 - (c) failed to perform on any previous contract.
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

Item	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury’s Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury’s website www.treasury.gov.za and can be accessed by clicking on its link at the bottom of the home page.</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	<p>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</p> <p>The Register for Tender Defaulters can be accessed on the National Treasury’s website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.2.1	If so, furnish particulars:		



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

Item	Question	Yes	No
4.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	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?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)
 CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND
 CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN
 AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

Js365bW



 DEPARTMENT OF ENVIRONMENTAL AFFAIRS

K. SBD 8.2 – DECLARATION OF UNDERTAKING
BID REFERENCE NUMBER: REF. NR. E1537 –

E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER

We underscore the importance of a free, fair and competitive contracting procedure that precludes abusive practices. In this respect we have neither offered nor granted directly or indirectly any inadmissible advantages to any public servant or other person nor accepted such advantages in connection with our bid, nor will we offer or grant or accept any such incentives or conditions in the present tendering process or, in the event that we are awarded the contract, in the subsequent execution of the contract. We also declare that no conflict of interest exists in the meaning of the kind described in the corresponding Guidelines.²

We also underscore the importance of adhering to minimum social standards (core labour standards) in the implementation of the project. We undertake to comply with the core labour standards ratified by the country of South Africa.

We will inform our staff of their respective obligations and of their obligation to fulfil this declaration of undertaking and to obey the laws of the country of South Africa.

We also declare that our company/ all members of the consortium has/ have not been included in the list of sanctions of the United Nations, nor of the EU, nor of the German Government, nor in any other list of sanctions and affirm that our company/ all members of the consortium will immediately inform the Department of Environmental Affairs if this situation occurs at a later stage.

We acknowledge that, in the event that our company (or a member of the consortium) is added to a list of sanctions that is legally binding on the Department of Environmental Affairs shall be entitled to exclude us/ the consortium or, if the contract is awarded to our company/ the consortium, to immediately cancel such contract if the statements made in the Declaration of Undertaking were objectively false or the reason for exclusion from the tender procedure occurs after the Declaration of Undertaking has been issued.

 (Place)

 (Date)

 (Name of company)

 Signature(s)

² See "Guidelines for the Assignment of Consultants in Financial Cooperation with Partner Countries" and "Guidelines for Procurement of Goods, Works and associated Services in Financial Cooperation with Partner Countries"



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L. SBD 9 – CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Standard Bidding Document (SBD) must form part of all bids¹ invited.
- 2 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)². Collusive bidding is a *per se* prohibition meaning that it cannot be justified under any grounds.
- 3 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 authorizes 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.
- 4 This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² 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 not to compete.



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SBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

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CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:



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SBD 9

- (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
- (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been 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 which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

³ Joint venture or Consortium 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.



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SBD 9

10. I am aware that, 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.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

M. BAS ENTITY MAINTENANCE FORM

Will be shared with the successful service provider



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

N. CONFLICT OF DECLARATION INTEREST

1. The tenderer shall declare whether it has any conflict of interest in the transaction for which the tender is submitted. (Please mark with X)

YES		NO	
-----	--	----	--

- 1.1 If yes, the tenderer is required to set out the particulars in the table below:

2. The tenderer shall declare whether it has directly or through a representative or intermediary promised, offered or granted:

2.1 any inducement or reward to the Department of Environmental Affairs for or in connection with the award of this contract; or

2.2 any reward, gift, favour or hospitality to any official or any other role player involved in the implementation of the supply chain management policy.
(Please mark with X)

YES		NO	
-----	--	----	--

- If yes, the tenderer is required to set out the particulars in the table below:

The tenderer hereby certifies that the information set out in this schedule and/ or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/ or (in the event that the tenderer is successful) the cancellation of the contract and/or steps in terms of the Abuse Policy.

 Signature

 Date

Print

name:

On behalf of the tenderer (duly authorised)



 DEPARTMENT OF ENVIRONMENTAL AFFAIRS

O. RESOLUTION BY DIRECTORS / MEMBERS / TRUSTEES

RESOLUTION for completion by Directors (if the tenderer is a (Pty) Ltd or Ltd) or Members (if the tenderer is a CC) or Trustees (if the tenderer is part of a Trust)

Name of tenderer:

Meeting held at _____(place)

On _____(date)

RESOLVED THAT:

1. The Tenderer submits a tender to the Department of Environmental Affairs in respect of TENDER NO: **E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER**

2. Mr/Ms _____ in his/her capacity as _____ and who will sign as follows:

 (SPECIMEN SIGNATURE)

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 or all documentation resulting from the award of the tender to the tenderer.

Note: The resolution must be signed by all the directors/ members of the tenderer. Should the space provided below not be sufficient for all directors/ members to sign, please attach a separate sheet to this returnable document P in the same format.

**DEPARTMENT OF ENVIRONMENTAL AFFAIRS**

No.	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7.			
8.			
9.			
10.			



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

P. CERTIFICATE OF AUTHORITY FOR PARTNERSHIPS / JOINT VENTURES / CONSORTIUMS

This schedule is to be completed if the tender is submitted by a partnership/joint venture/consortium.

1. We, the undersigned, are submitting this tender offer as a partnership/joint venture/consortium and hereby authorize Mr/Ms _____, of the authorised entity _____, acting in the capacity of Lead Partner, to sign all documents in connection with the tender offer and any contract resulting from it on the partnership/ joint venture/ consortium's behalf.
2. By signing this schedule the partners to the partnership/ joint venture/ consortium:
 - 2.1 warrant that the tender submitted is in accordance with the main business and objectives of the partnership/joint venture/consortium;
 - 2.2 agree that the Department of Environmental Affairs shall make all payments in terms of this Contract into the following bank account of the Lead Partner:

Account	Holder:
Financial	Institution:
Branch	Code:
Account No.: _____	
 - 2.3 agree that in the event that there is a change in the partnership/ joint venture/consortium and/or should a dispute arise between the partnership/ joint venture/consortium partners, that the Department of Environmental Affairs shall continue to make any/all payments due and payable in terms of the Contract into the aforesaid bank account until such time as the Department of Environmental Affairs is presented with a Court Order or an original agreement (signed by each and every partner of the partnership/ joint venture/ consortium) notifying the Department of Environmental Affairs of the details of the new bank account into which it is required to make payment.
 - 2.4 agree that they shall be jointly and severally liable to the Department of Environmental Affairs for the due and proper fulfilment by the successful tenderer/supplier of its obligations in terms of the Contract as well as any damages suffered by the Department of Environmental Affairs as a result of breach by the successful tenderer/supplier. The partnership/ joint venture/ consortium partners hereby renounce the benefits of excussion and division.


DEPARTMENT OF ENVIRONMENTAL AFFAIRS

SIGNED BY THE PARTNERS OF THE PARTNERSHIP/ JOINT VENTURE/ CONSORTIUM		
NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....

Note: A copy of the Joint Venture Agreement shall be appended to tender returnable document "S".



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

Q. SUPPLIER ACCOUNT DETAIL

THE TENDERER SHALL ATTACH AT THIS RETURNABLE A LETTER FROM BANK CONFIRMING ACCOUNT DETAILS

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

R. PARTNERSHIP / JOINT VENTURE / CONSORTIUM AGREEMENT

THE TENDERER SHALL ATTACH AT THIS RETURNABLE PARTNERSHIP / JOINT VENTURE / CONSORTIUM AGREEMENT.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

S. DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED)

If the value of the transaction is expected to exceed R10 million (VAT included) the tenderer shall complete the following questionnaire, attach the necessary documents and sign this schedule:

1. Are you by law required to prepare annual financial statements for auditing? (Please mark with X)

YES		NO	
-----	--	----	--

1.1 If YES, submit audited annual financial statements:

- (i) for the past three years, or
- (ii) since the date of establishment of the tenderer (if established during the past three years)

By attaching such audited financial statements to **THIS RETURNABLE DOCUMENT T**.

2. Do you have any outstanding undisputed commitments for municipal services towards the Department of Environmental Affairs or other municipality in respect of which payment is overdue for more than 30 (thirty) days? (Please mark with X)

YES		NO	
-----	--	----	--

2.1 If NO, this serves to certify that the tenderer has no undisputed commitments for municipal services towards any municipality for more than three (3) months in respect of which payment is overdue for more than 30 (thirty) days.

2.2 If YES, provide particulars:


DEPARTMENT OF ENVIRONMENTAL AFFAIRS

3. Has any contract been awarded to you by an organ of state during the past five (5) years?
(Please mark with X)

YES		NO	
-----	--	----	--

- 3.1 If YES, insert particulars in the table below including particulars of any material non-compliance or dispute concerning the execution of such contract. Alternatively attach the particulars to **THIS RETURNABLE DOCUMENT T** in the same format as the table below:

Organ of State	Contract Description	Contract Period	on-compliance/dispute (if any)

4. Will any portion of the goods or services be sourced from outside the Republic, and if so, what portion and whether any portion of payment from the Department of Environmental Affairs is expected to be transferred out of the Republic? (Please mark with X)

YES		NO	
-----	--	----	--

- 4.1 If YES, furnish particulars below

The tenderer hereby certifies that the information set out in this schedule and/ or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/ or (in the event that the tenderer is successful) the cancellation of the contract and/ or steps in terms of the Abuse Policy.

_____ Signature
Date

Print name: _____

On behalf of the tenderer (duly authorised)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

T. FINANCIAL STATEMENTS FOR PAST THREE YEARS

THE TENDERER SHALL ATTACH AT THIS RETURNABLE FINANCIAL STATEMENTS FOR PAST 3 YEARS

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

U. MUNICIPAL ACCOUNTS OR LEASE AGREEMENT AND LETTER FROM LANDLORD INDICATING PAYMENT OF MUNICIPAL ACCOUNTS

THE TENDERER SHALL ATTACH AT THIS RETURNABLE MUNICIPAL ACCOUNTS OR LEASE AGREEMENT AND LETTER FROM LANDLORD INDICATING PAYMENT OF MUNICIPAL ACCOUNTS

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

V. DETAILS OF INSURANCE COVER

THE TENDERER SHALL ATTACH AT THIS RETURNABLE DETAILS OF INSURANCE COVER REFERENCE HIGHLIGHTING FOR FLOWING:

1. PERIODS OF VALIDITY
2. THE VALUE OF INSURANCE FOR PROFESSIONAL INDEMNITY, WORKS & EQUIPMENT, PERSONNEL, VEHICLE LIABILITY AND THIRD PARTY LIABILITY

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

W. CONSTRUCTION INDUSTRY DEVELOPMENT BOARD CERTIFICATE

Attached hereto is my / our valid Contractor's Certificate of Registration with CIDB. My failure to submit the certificate with my / our tender document will lead to the conclusion that I am / we are not registered with the CIDB and therefore not eligible to tender.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

**X. COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT (COIDA)
LETTER OF GOOD STANDING**

THE TENDERER SHALL ATTACH AT THIS RETURNABLE CERTIFIED COPIES OF
COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT (COIDA) LETTER OF
GOOD STANDING

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

Y. ENTERPRISE REGISTRATION CERTIFICATE

THE TENDERER MUST INDICATE THE ENTERPRISE STATUS BY TICKING THE APPROPRIATE BOX HEREUNDER.

(I) SOLE PROPRIETOR	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) COMPANY	(V) TRUST
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

THE TENDERER SHALL ATTACH AT THIS RETURNABLE A COPY OF THE ENTERPRISES REGISTRATION CERTIFICATE (CIPC)

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AA. CERTIFIED IDENTIFICATION DOCUMENTS

THE TENDERER SHALL ATTACH AT THIS RETURNABLE CERTIFIED COPIES OF IDENTIFICATION OF ALL DIRECTORS, MEMBERS, FOUNDERS OF TRUSTS, TRUSTEES AND BENEFICIARIES.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AB. COMPANY SHARE CERTIFICATES

THE TENDERER SHALL ATTACH AT THIS RETURNABLE CERTIFIED COPIES OF COMPANY SHARE CERTIFICATE.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AC. CENTRAL SUPPLIER DATABASE

THE TENDERER SHALL ATTACH AT THIS RETURNABLE PROOF OF REGISTRATION ON THE CENTRAL SUPPLIER DATABASE

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AD. SIGNED TENDER DOCUMENT

THE TENDERER SHALL ATTACH AT THIS RETURNABLE THE COMPLETE TENDER DOCUMENT INCLUDING THE TENDERERS SIGNATURE ON THE TENDER DOCUMENT. EACH PAGE MUST BE INITIALLED.

COVER PAGE

PAGES T1 - T116

PAGES C1 – C66

ALL AS PARTS OF T1, T2, C1, C2, C3 and C4

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AE. BID SUBMISSION CHECKLIST – ENVELOPE 2

Envelope 2 – “Technical Proposal”			
No.	Item	Check	Envelope
AE	Completed Bid Submission Checklist – Envelope 2		
AF	UNPRICED Bill of Quantities	Yes/ No	2
AG	Schedule of work	Yes/ No	2
AH	Proposed key personnel	Yes/ No	2
AI	Qualifications and professional registration of key personnel	Yes/ No	2
AJ	Project organisational chart	Yes/ No	2
AK	Reference letters for EPC/ turnkey contracts of a similar nature	Yes/ No	2
AL	Project Program	Yes/ No	2
AM	Method Statement	Yes/ No	2
AN	Schedule of Plant and Equipment	Yes/ No	2
AO	Data sheets of plant/ equipment	Yes/No	2
AP	Contract Price Adjustment Formula	Yes/No	2
AQ	FOREX Component Details	Yes/No	2
AR	Deviations and Qualifications	Yes/No	2



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AF. UNPRICED BILLS OF QUANTITIES

THE TENDERER SHALL ATTACH AT THIS RETURNABLE THE COMPLETE **UNPRICED** BILLS OF QUANTITIES COMPLETED IN ACCORDANCE WITH SANS 1200

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AG. SCHEDULE OF WORK

The Tenderer shall list below at least the last three contracts of a similar nature awarded to him/ her. This information is material to the award of the Contract and must include work undertaken by proposed sub-consultants (or subcontractors).

No.	Project/ employer and project description	Nature of work	Value of work	Year of completion	Reference detail (Name, employer, Tel. no. and e-mail)
1					
2					
3					



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AH. PROPOSED KEY PERSONNEL

The Tenderer must guarantee the presence of the senior expert in charge of fieldwork throughout the duration of the contract. Prior to the appointment of a replacement, the Programme Manager must approve such appointment. If the senior has to leave the project, a period of at two (2) weeks is required in which the senior must work parallel with the next person (senior consultant with similar expertise and equal years of experience) appointed to be able to transfer skills and knowledge.

The Tenderer shall list below the key personnel (including first nominee and the second choice alternate), for the execution of the work, together with their qualifications, experience and positions held:

Designation	Name and nationality of nominee or alternate	Summary of qualifications, experience and present occupation
Project Director		
Design Lead		
Technical Staff		
Construction Manager		
Site Manager		
Safety, Health and Environment (SHE) representative		
Other staff (provide designation)		



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AJ. PROJECT ORGANISATIONAL CHART

The Tenderer must provide a Project Organisational Chart identifying all resources indicated in response to this tender and all support staff required to ensure successful delivery of the project.

The Project Organisational Chart must include reporting lines and interfaces to DEA. The Contractor to also accommodate for site meetings and visits.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AK. REFERENCE LETTER FOR EPC/TURNKEY PROJECTS OF A SIMILAR NATURE

The Tenderer must demonstrate their track record and experience with projects of a similar nature by providing three (3) Reference Letters which contains the following information:

- All Reference Letters to be on Employer's letterheads;
- Reference to the specific project;
- Project value;
- Tenderer's involvement in project;
- Value portion of tenderer's involvement; and
- Clear indication of Employer's impression of tenderer.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AL. PROJECT PROGRAMME

The tenderer must provide a project programme as per item 3.5.7.2. as detailed in C3 – Scope of Works.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AM. PROJECT METHOD STATEMENT

The tenderer must provide a method statement that addresses the following aspects:

- Design process;
- Approvals;
- Construction process;
- Safety, Health, Environmental & Quality considerations during the construction process; and
- Completion and handover.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AO. DATA SHEETS FOR SCHEDULE PLANT AND EQUIPMENT

The tenderer must attach data sheets of plant/ equipment that will be supplied as per the requirements in the returnable AM above. This must include empirical values for fuel/energy consumption and a list of required supplies and assumptions for the consumption values indicated.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)

**DEPARTMENT OF ENVIRONMENTAL AFFAIRS**

AP. CONTRACT PRICE ADJUSTMENT FORMULA

If the Tenderer cannot fix and firm a portion of the price due to fluctuations on i.e. labour, material etc. he clearly needs to indicate the portion subject to escalation, formula applicable to adjustment, index used and base month. The Contract Price Adjustment Formula in accordance with Part C 1.2 Contract Data. Tenderer to include the adjustment formula on Forex, if any.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AQ. FOREX COMPONENT DETAILS

The Tenderer is to submit detail of their FOREX cost components, if any, and detail the items in the BoQ it relates to.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

AS. BID SUBMISSION CHECKLIST – ENVELOPE 3

Envelope 3 – “Financial Proposal”			
Ref.	Item	Check	Envelope
AS	Completed Bid Submission Checklist – Envelope 3	Yes/ No	3
AT	SBD 3.3 - Pricing Schedule	Yes/ No	3
AU	Project Cashflow	Yes/ No	3
AV	PRICED Bills of Quantities	Yes/ No	3



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AT. SBD 3.3 – PRICING SCHEDULE

(Professional Services)

NAME OF BIDDER:	BID NO: E1537
CLOSING TIME 11:00	CLOSING DATE: 06 December 2019

OFFER TO BE VALID FOR 90 DAYS FROM THE CLOSING DATE OF BID.

DESCRIPTION: E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER

**** (ALL APPLICABLE TAXES INCLUDED)**

1. The accompanying information must be used for the formulation of proposals.
2. Bidders are required to indicate a ceiling price based on the total estimated time for completion of all phases and including all expenses inclusive of all applicable taxes for the project

R.....



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8. Are the rates quoted firm for the full period of contract? *YES/NO
9. If not firm for the full period, provide details of the basis on which adjustments will be applied for, for example consumer price index
-
-
-
-

***[DELETE IF NOT APPLICABLE]**



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AU. PROJECT CASH FLOW

The Tenderer shall attach a detailed cash flow based on the tender price, and schedule of work. (including Forex breakdown separately)

The Tenderer agrees that this cash flow prediction will in no way affect the terms of payment as stated elsewhere in this Tender.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



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AV. PRICED BILLS OF QUANTITIES

THE TENDERER SHALL ATTACH AT THIS RETURNABLE THE COMPLETE **PRICED** BILLS OF QUANTITIES COMPLETED IN ACCORDANCE WITH SANS 1200.

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)



PART C1:
AGREEMENTS AND CONTRACT DATA

C1.1	FORM OF OFFER AND ACCEPTANCE	C3
C1.2	CONTRACT DATA	C9
C1.3	FORM OF GUARANTEE / PERFORMANCE SECURITY	C20
C1.4	INSURANCE BROKER'S WARRANTY	C25

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Part C1.1. Form of Offer and Acceptance

OFFER

The Employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of the: **E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER**

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 authorized, 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 INCLUSIVE OF VALUE ADDED TAX IS:

.....Rand (in words);

R (in figures)

This offer may be accepted by the Employer by signing the acceptance part of this form of offer and 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.

Signature Date

Name

Capacity

for the tenderer

(Name and address of organization).....

.....

Name and signature of witness:



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

And drawings 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 Employer 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 within two weeks after 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 bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data. Failure to fulfill 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 original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature:

Date:

Name:

Capacity:

For the Employer

Name and signature of witness:



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SCHEDULE OF DEVIATIONS

1 Subject

 Details

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2 Subject

 Details

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3 Subject

 Details

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4 Subject

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5 Subject

 Details

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By the duly authorised representatives signing this agreement, the Employer 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 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 Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

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Employer

Tenderer

Signatures:

Names :

Capacity :

Witness

Witness

Signatures:

Names :

Capacity :

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Part C1.2. Contract Data

Contract Data for **E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER**

PART 1: DATA PROVIDED BY THE EMPLOYER C1.2.1 GENERAL CONDITIONS OF CONTRACT

This Contract will be based on the "FIDIC Conditions of Contract for PLANT and Design-Build for Electrical and Mechanical Plant and for Building and Engineering Works, Designed by the Contractor – First Edition 1999" (Short title: "FIDIC Conditions of Contract for Plant and Design-Build 1999")

It is agreed that the only variations from the FIDIC Conditions of Contract for Plant and Design-Build 1999 are those set out hereafter under "Particular Conditions of Contract".

Copies of these FIDIC Conditions of Contract for Plant and Design-Build 1999 may be obtained from the South African Institution of Civil Engineering:

- SAICE House, Block 19, Thornhill Office Park, Bekker Street, Midrand
- Tel: (011) 805-5947; Fax: (011) 805-5971;
E-mail: civilinfo@saice.org.za

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C1.2.2 APPENDIX TO CONTRACT - CONTRACT DATA

The following Contract Specific Data, referring to the FIDIC Conditions of Contract for Plant and Design-Build 1999, are applicable in this Contract:

Each item of data given below is cross-referenced to the clause in the General Conditions of Contract to which it mainly applies.

APPENDIX TO CONTRACT – CONTRACT DATA

REFERENCES PERTAINING TO THOSE IN THE GENERAL CONDITIONS

Clause	Description	Data
1.1.2.2 & 1.3	Employer's name and address	Department of Environmental Affairs Environment House, 473 Steve Biko, Arcadia Pretoria
1.1.2.3 & 1.3	Contractor's name and address _____ _____
1.1.2.4 & 1.3	Engineer's name and address	_____ _____ _____ _____
1.1.3.2	Commencement Date	.....
1.1.3.3	Time for Completion of the Work	.....
1.1.3.7	Defects Notification Period	.....
1.3	Electronic transmissions systems	.....
		For the Employer: [to be advised by on contract award]
		For the Contractor:
1.4	Governing Law	Law of the Republic of South Africa

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1.4	Ruling language	English
1.4	Language for communications	English
2.1	Time for access to the Site
4.2	Amount of Performance Security	.....
6.5	Normal working hours	.....
8.7 & 14.15(b)	Delay damages for the Works	.....
8.7	Maximum amount of delay damages	.....
11.1	Period for notifying defects	.....
13.5(b)	<i>If there are Provisional Sums:</i> Percentage for adjustment of Provisional Sums	.....
13.8	If Sub-Clause 13.8 applies: Adjustments for Changes in Cost; Table(s) of adjustment data	.....
14.2	Total advance payment	.....
14.3	Percentage of retention	.....
14.5(b)	If Sub-Clause 14.5 applies: Plant and Materials for payment when shipped <i>en route</i> to the Site	.....
14.5(c)	Plant and Materials for payment when delivered to the Site	.....
14.6	Minimum amount of Interim payment Certificate	.....
14.8	Rate of Interest	.....
14.15	Currencies of payment	ZAR (South African Rand)
18.1	Periods for submissions of insurance:	
18.1(a)	Evidence of insurance
18.1(b)	Relevant policies

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18.3 Minimum amount of third party insurance

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C1.2.3 AMENDMENTS TO THE FIDIC CONDITIONS OF CONTRACT FOR PLANT AND DESIGN-BUILD 1999 WITH CONTRACT PARTICULAR CONDITIONS

PARTICULAR CONDITIONS OF CONTRACT

The following Particular Conditions of Contract, add to, vary or otherwise amend the General Conditions of Contract. References pertain to those in the General Conditions.

Clause	Description	Particular Condition
1.1.1.4	Letter of Tender	<i>Delete this sub-clause in its entirety</i>
1.1.6.10	Employers Requirement's	<i>Add the following sub-clause:</i> <p>““Employer’s Requirements” means Part C3 Scope of Work”</p>
1.1.6.11	Suspensive Condition	<i>Add the following sub-clause:</i> <p>““Suspensive Condition” means (a) Signature of a service level agreement”</p>
1.5	Priority of Documents	<i>Delete sub-paragraph (c).</i>
1.11	Contractor’s Use of Employer’s Documents	<i>Insert the words:</i> <p>“, with the Employer’s consent only,”</p> <p><i>After the words “The Contractor may,”</i></p>
1.13	Compliance with Laws	<i>Add the following sub-clause:</i> <p>“(c) The Contractor shall comply strictly with all laws, regulation, directions, permissions and other requirements which are applicable to the Contractor’s operation in the execution of the Works, including but not limited to the:</p> <ul style="list-style-type: none"> (i) Compensation for Occupational Injuries and Diseases Act (130/1993) (ii) Unemployment Insurance Act (30/1996) (iii) Health Act and Regulations (63/1977) (iv) Labour Relations Act and Regulations (66/1995) (v) Occupational Health and Safety Act and Regulations (85/1993) (vi) Basic Conditions and Employment Act (75/1977) (vii) National Environmental Management Act (107/1998) (viii) National Environmental Management: Waste Act (59/2008) (ix) The Construction Industry Development Board Act and

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<u>Clause</u>	<u>Description</u>	<u>Particular Condition</u>
		<p>Regulations (38/2000)</p> <p>(x) The Preferential Procurement Policy Framework Act and Regulations (2017)</p> <p>(xi) The National Industrial Participation Programme (as administered by the Department of Trade and Industry)</p> <p>(xii) Competition Act (89/1998)</p> <p>The Contractor shall also comply strictly with all South African environmental, safety and licensing laws and tax legislation, as well as with the Employer's Work Rules and Regulations (a copy of which is obtainable from the Engineer) and shall ensure that all its personnel and that of its Subcontractors/Suppliers are conversant with these rules and comply with same."</p>
1.15	Corrupt Policies	<p><i>Add the following after sub-clause 1.14:</i></p> <p>"The Parties (which for the purpose of this clause 1.15 shall include its directors, employees, agents, shareholders and/or partners) warrant that the performance of their respective obligations in terms of the Contract shall in no way constitute an infringement or other violation of the laws of the Republic of South Africa, and in particular, will under no circumstances engage in any activities which may constitute a Corrupt Act."</p>
1.16	Registered and Licensed	<p><i>Add the following after sub-clause 1.15:</i></p> <p>The Contractor shall at its cost:</p> <p>a) at all times during the performance of the Works be; and</p> <p>b) ensure that any person who performs any part of the Works is,</p> <p>registered and licensed in South Africa as required by any law and any government authority to execute the Works, including obtaining all permits, licences and approvals which the Contractor is required to obtain under Sub-Clause 1.13 (Compliance with Laws).</p>



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<u>Clause</u>	<u>Description</u>	<u>Particular Condition</u>
4.2	Performance Security	<p><i>Insert the words:</i></p> <p>"being an on demand guarantee in the form set out in Part C1.3, issued from an Acceptable Bank and a parent company guarantee in the form set out in Part C1.3 from the parent company of the Contractor, acceptable to the Employer,"</p> <p><i>after the words "Performance Security" in the first line of the first paragraph of the Sub-Clause.</i></p>
4.25	Employers Policies and Procedures	<p><i>The following sub-clause included as Clause 4.25:</i></p> <p>"The Contractor acknowledges and agrees that it has read and understood the Policies and Procedures and shall, in and about the performance of the Works, observe and comply with the Policies and Procedures."</p>
4.26	Corrupt Acts	<p><i>The following Sub-clause included as Clause 4.26:</i></p> <p>The Contractor must, without derogating from clause 1.15:</p> <ol style="list-style-type: none"> a) comply with, and must ensure that its Personnel and Subcontractors comply with all requirements not to engage in Corrupt Acts; b) notify the Employer of the occurrence and details of any Corrupt Act by itself, its Personnel or a Subcontractor promptly on the Contractor becoming aware of its occurrence; and c) indemnify the Employer from and against any and all liabilities, damages, claims, fines, penalties, fees, costs and expenses of whatever nature arising out of or resulting from any breach by the Contractor of this clause 4.26."
5.9	Shared Data Portal	<p><i>Add the following sub-clause:</i></p> <p>"The Employer may require the Contractor at any time during the works to make use of a shared data portal for the project"</p>
6.4	Labour Laws	<p><i>Add the following paragraph after the second paragraph of this sub-clause:</i></p>

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<u>Clause</u>	<u>Description</u>	<u>Particular Condition</u>
7.3	Inspection	<p><i>The following Sub-clause is added to Clause 7.3 as follows:</i></p> <p>"The Contractor has included in his rates and prices for all costs involved with regard to statutory examinations of plant, machinery and workings to comply with the appropriate laws and regulations."</p>
14.1	The Contract Price	<p><i>The following sub-clause is to be added to sub-clause 14.1:</i></p> <p>"(e) The Contract Price shall include the first year materials, notifications, and information pertaining to spare parts manufactured or distributed by the Contractor delivered to site"</p>
17.5	Intellectual and Industrial Property Rights	<p>Insert the following new paragraph at the end of this sub-cause:</p> <p>"The indemnifying Party may at its own expense and sole option, either:</p> <ul style="list-style-type: none"> (i) procure the right to continue using the relevant intellectual or industrial property rights relating to the works, or (ii) replace or modify the intellectual or industrial property rights relating to the works with non-fringing substitutes, provided that any substitute shall be subject to condition of this clause 17.5 and that such substitution shall be carried out so as to avoid and reduce insofar as possible any interruption to the works"
19.6	Optional Termination, Payment and Release	<p><i>Replace "84 days" with "30 (thirty) days" in the first paragraph</i></p>
20.2	Appointment of the Dispute Adjudication Board	<p><i>Delete the title and wording of this sub-clause and replace with the following:</i></p> <p>"Mediation</p> <p>Should the parties fail to resolve any dispute by way of mutual consultation as contemplated Clause 20.1, either party shall be entitled to refer the matter for mediation before an independent and impartial person appointed by the Municipal Manager in accordance with</p>

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<u>Clause</u>	<u>Description</u>	<u>Particular Condition</u>
		<p>Regulation 50(1) of the Local Government: Municipal Finance Management Act No. 56 of 2003 - Municipal Supply Chain Regulations (Notice 868 of 2005). Such referral shall be done by way of notice to the other party 30 (thirty days) after the parties have failed to resolve their dispute. The mediator's ruling shall become final and binding upon the parties only to the extent that it is correctly recorded as being agreed to by the parties in writing.</p> <p>Save for reference to any portion of any settlement or decision which has been agreed to be final and binding on the parties, no reference shall be made by or on behalf of either party, in any subsequent court proceedings, to any outcome of an amicable settlement by mutual consultation, or to the fact that any particular evidence was given, or to any submission, statement or admission made in the course of amicable settlement by mutual consultation or mediation."</p>
20.3	Failure to Agree Dispute Adjudication Board	<i>Delete this sub-clause in this entirety</i>
20.4	Obtaining the Dispute Adjudication Board's Decision	<i>Delete this sub-clause in this entirety</i>
20.5	Amicable Settlement	<i>Replace the words "Sub-Clause 20.4" with words "Sub-Clause 20.2" in the first line</i>
20.6	Arbitration	<p><i>Sub-clause 20.6 shall be amended as follows:</i></p> <p><i>Replace the "DAB" with the word "mediation" throughout the clause.</i></p> <p><i>Replace the first paragraph with the following,</i></p> <p>"Unless settled amicably, any dispute in respect of which the mediation decision (if any) has not become final and binding shall be referred to a single arbitrator to be agreed on between the parties or, failing such agreement within 28 days after delivery to the parties of the Mediator's opinion, nominated on the application of either party by the President for the time being of the Association of Arbitrators (Southern Africa)"</p>

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<u>Clause</u>	<u>Description</u>	<u>Particular Condition</u>
20.7	Failure to Comply with the Dispute Adjudication Board's Decision	<i>Delete this sub-clause in this entirety</i>
20.8	Expiry of the Dispute Adjudication Board's Appointment	<i>Delete this sub-clause in this entirety</i>
20.9	Court of Law	<p><i>Add the following sub-clause:</i></p> <p>"Should it not be possible to settle a dispute by means of mediation or arbitration, it shall be settled in a South African court of law."</p>

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Part C1.3. Form of Guarantee / Performance Security

FORM OF GUARANTEE / PERFORMANCE SECURITY

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:

.....

Physical address of Guarantor:

.....

"Supplier" means:

.....

"Contract Sum" means: The accepted tender amount (INCLUSIVE OF VAT) of R

.....

Amount in words:

.....

"Guaranteed Sum" means: The maximum amount of R

.....

Amount in words:

.....

"Contract" means: The agreement made in terms of the Form of Offer and Acceptance for BID REFERENCE NUMBER: REF. NR. **E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER**

and such amendments or additions to the contract as may be agreed in writing between the parties.

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.

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2. The Guarantor's period of liability shall be from and including the date of issue of this Guarantee/Performance Security up to and including the termination of the Contract or the date of payment in full of the Guaranteed Sum, whichever occurs first.

3. The Guarantor hereby acknowledges that:
 - 3.1 any reference in this Guarantee/Performance to "Contract" is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 3.2 its obligation under this Guarantee/Performance Security is restricted to the payment of money.

4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Department of Environmental Affairs the sum due and payable upon receipt of the documents identified in 4.1 to 4.3:
 - 4.1 A copy of a first written demand issued by the Department of Environmental Affairs to the Supplier stating that payment of a sum which is due and payable has not been made by the Supplier in terms of the Contract and failing such payment within seven (7) calendar days, the Department of Environmental Affairs intends to call upon the Guarantor to make payment in terms of 4.2;
 - 4.2 A first written demand issued by the Department of Environmental Affairs to the Guarantor at the Guarantor's physical address with a copy to the Supplier stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum has still not been paid.

5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Department of Environmental Affairs the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Department of Environmental Affairs to the Guarantor at the Guarantor's physical address calling up this Guarantee / Performance Security, such demand stating that:
 - 5.1 the Contract has been terminated due to the Supplier's default and that this Guarantee/Performance Security is called up in terms of 5; or
 - 5.2 a provisional or final sequestration or liquidation court order has been granted against the Supplier and that the Guarantee/Performance Guarantee is called up in terms of 5; and

E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER


DEPARTMENT OF ENVIRONMENTAL AFFAIRS

- 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
7. Where the Guarantor has made payment in terms of 5, the Department of Environmental Affairs shall upon the termination date of the Contract, submit an expense account to the Guarantor showing how all monies received in terms of this Guarantee/Performance Security have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Guarantee/Performance Security shall bear interest at the prime overdraft rate of the Department of Environmental Affairs's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Department of Environmental Affairs until the date of refund.
8. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
9. Payment by the Guarantor in terms of 5 will only be made against the return of the original Guarantee/Performance Security by the Department of Environmental Affairs.
10. The Department of Environmental Affairs shall have the absolute right to arrange its affairs with the Supplier in any manner which the Department of Environmental Affairs may deem fit and the Guarantor shall not have the right to claim his release from this Guarantee /Performance Security on account of any conduct alleged to be prejudicial to the Guarantor.
11. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
12. This Guarantee/Performance Security is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee / Performance Security shall be returned to the Guarantor after it has expired.
13. This Guarantee/Performance Security, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
14. Where this Guarantee/Performance Security is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district

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having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at on2016

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

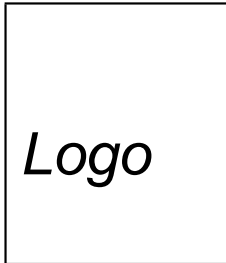
Witness signatory (1)

Witness signatory (2)

E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER



Part C1.4. Insurance Broker's Warranty



Letterhead of supplier's Insurance Broker

Date _____

Department of Environmental Affairs
[Physical Address]

Dear Sir

BID REFERENCE NUMBER: REF. NR. E1471

TENDER DESCRIPTION: E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER

NAME OF SUPPLIER: _____

I, the undersigned, do hereby confirm and warrant that all the insurances required in terms of the abovementioned contract have been issued and/or in the case of blanket/umbrella policies, have been endorsed to reflect the interests of the DEPARTMENT OF ENVIRONMENTAL AFFAIRS with regard to the abovementioned contract, and that all the insurances and endorsements, etc., are all in accordance with the requirements of the contract.

I furthermore confirm that all premiums in the above regard have been paid.

Yours faithfully

E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

Signed: _____

For: _____ (Supplier's Insurance Broker)

E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER



**PART C2:
PRICING DATA**

C2.1 PRICING INSTRUCTIONS C28

C2.2 BILLS OF QUANTITIES C30

E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER



Part C2.1. Pricing Instructions

General Provisions:

- (a) A comprehensive budget in the form of a BoQ clearly stating the quantum and rate for the full scope is required. In addition, all disburseable expenses and VAT must clearly be stated. Professional fees and construction related activities are to be separated. The BoQ shall be in a spreadsheet format and all item descriptions and rates as per the measurement clauses in SANS1200.
- (b) A breakdown of the hourly tariff inclusive of VAT for services rendered of the design team must be submitted.
- (c) Expenditure incurred without the prior approval of the Programme Manager will not be reimbursed.

There shall be no price adjustments to the financial proposal of the contractor, unless there are modifications to the purpose of the Contract.



DEPARTMENT OF ENVIRONMENTAL AFFAIRS

Part C2.2. Bills of Quantities

Tenderer shall compile the Bills of Quantities in strict accordance with all details contained in this tender document.

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**PART C3:
SCOPE OF WORKS**

C3.1 SCOPE OF WORKS..... C33

E1537: REQUEST FOR THE APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS ESTIMATED THAT TENDERERS MUST HAVE A CIDB CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER

19 July 2018

DEPARTMENT OF ENVIRONMENTAL AFFAIRS (DEA) AS AN ORGAN OF STATE SUBSCRIBES TO AND PROPAGATES BOTH THE NOTION OF BROAD BASED BLACK ECONOMIC EMPOWERMENT ACT, 2003 (Act No. 53 of 2003) (BBBEE), THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 (Act No. 5 of 2000) AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

TERMS OF REFERENCE

REQUEST FOR APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS REQUIRED THAT TENDERERS MUST HAVE A CIBD CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER

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2	Introduction and Background	3
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1. PURPOSE

To appoint construction entities in terms of the infrastructure tender process for the construction of green building ablution structures. These entities will be required to bid in terms of the department's tender process and the successful entities will be allocated a region comprising of approximately seven to ten schools that are geographically co-located. This process will be internal to the department with management and technical support provided by the Value Added Industry (VAI).

2. INTRODUCTION AND BACKGROUND

- 2.1 The Department of Environment, Forestry and Fisheries (DEFF) has successfully concluded the registration of its cement-free load bearing materials with the Agrément South Africa, who is a listed public entity that regulates and evaluates the fitness for purpose of non-standardised construction products, materials and systems.
- 2.2 The product had been subjected to the Agrément trials and subsequently obtained certification thus created by using 75% invasive biomass materials clearing process of invasive trees that cause fires, which is used to build fire-proof houses. The experiments have shown that the product is less expensive and has superior building properties over conventional options (fire-proof, strength, thermal properties, acoustic properties, ease of construction).
- 2.3 As a result of the various successful demonstrations of the light house structures, the Department of Environment, Forestry and Fisheries (DEFF) has been appointed as an Implementing Agent to the Department of Basic Education (DBE), in terms of the Memorandum of Agreement between the two departments, to construct Toilet Blocks to replace pit latrines in schools. An initial allocation is for 58 schools in the Eastern Cape, and additional allocations are anticipated. This forms part of the Sanitation Appropriate for Education (SAFE) initiative announced by President Cyril Ramaphosa and Minister Angie Motshekga in 2018.
- 2.5 The Environmental Programmes (EP) as a branch comprises a variety of programmes through which the department contributes to the government's Expanded Public Works Programme (EPWP), that have secured the appointment. The construction of the 58 ablution blocks will be based on the EPWP methodology of government.
- 2.6 The Department, through the Value-Added Industries (VAI) programme in the Environmental Programmes (EP) Branch, is also building houses, classrooms, roads, sports fields and other structures. It is using a material researched, developed and patented by the VAI programme.

3. OBJECTIVES

The Department would like to invite suitably qualified contractors to enlist their services for initially the SAFE initiative in the Northern Eastern Cape area, subsequent other green structures in protected areas and demonstration units in municipalities. Contractors must be CIDB Graded Contractors and the Home Builders Registration Council.

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4. SCOPE AND EXTENT OF WORK

4.1 The scope and the extent of work shall be specified for each project by suitably qualified professionals and contractors will be expected to submit quotations based on such specifications. This shall be done only when the Department has approved projects to be implemented.

4.2 You are hereby invited to tender on the following, to be submitted separately for each cluster:

- 4.2.1 Cluster 1 – Maluti (8 Ablution Blocks)
- 4.2.2 Cluster 2 – Mbizana (10 Ablution Blocks)
- 4.2.3 Cluster 3 – Mfudsweni (5 Ablution Blocks)
- 4.2.4 Cluster 4 – Tabankulu (4 Ablution Blocks)
- 4.2.5 Cluster 5 – Mount Ayliff (9 Ablution Blocks)
- 4.2.6 Cluster 6 – Dadane (8 Ablution Blocks)
- 4.2.7 Cluster 7 – Mthatha (9 Ablution Blocks)
- 4.2.8 Cluster 8 – Ndyebo (5 Ablution Blocks)

4.3 The Tender Documents for each of the 8 clusters comprising of the following are attached to this invitation. The scope of work for each of the clusters are annexed to the document:

- 4.3.1 Notes to Tenderers
- 4.3.2 Annexures
- 4.3.3 Bill of Quantities
- 4.3.4 JBCC Contract Data including Form of Tender
- 4.3.5 Agrema Lighthouse Building System
- 4.3.6 Cluster allocation list
- 4.3.7 Tender Drawings for different ablution block types applicable to each Cluster

4.4 The following documents to be submitted with Tender:

- 4.4.1 Priced Bill of Quantities
- 4.4.2 Duly signed tender form as per JBCC Contract Data
- 4.4.3 Form of Indemnity – Annexure D
- 4.4.4 Authority of Signatory – Annexure E
- 4.4.5 Form of Responsible Person – Annexure F
- 4.4.6 Valid Tax Clearance Certificate
- 4.4.7 Company registration & Company Profile
- 4.4.8 Valid BBEEE certificate/affidavit
- 4.4.9 Confirmation of bank account not older than 3 months
- 4.4.10 Letter of Good Standing
- 4.4.11 Construction Program

5. EXPECTED DELIVERABLES / OUTCOMES

Fully functional ablution blocks, per cluster, and as per Bill of Quantity, drawings and specifications.

6. PERIOD / DURATION OF PROJECT / ASSIGNMENT

The builds must be completed within 40 days from the date of the official order.

7. COSTING / COMPREHENSIVE BUDGET

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Comprehensive budget must be in accordance with paragraph 4.4.1 and must be provided in a separate envelope inclusive of all disbursement costs, expenses and VAT.

8. EVALUATION CRITERIA

8.1 Pre-Qualification Criteria:

Must be completed by bidder by answering yes or no and attach proof.

Pre-qualification criteria:	Requirement	Comply: Yes or No
	Only service provider (s) who are EME or QSE, which are, at least 51% owned by black people will be considered for this bid as per Preferential Procurement Regulations 2017. Service provider (s) are required to submit an original or certified copy of the EME or QSE B-BBEE Status Level of contributor issued by SANAS only or an original or certified copy of DTI sworn affidavit in terms of Codes of good practice" indicating that service provider is an EME/ QSE . Failure to submit B-BBEE Status Level of contributor will result on bid being non-responsive or disqualified.	

8.2 Mandatory Requirements for Bidders

Must be completed by bidder by answering yes or no and attach proof.

Requirement	Comply: Yes/No and Grade
Registration with the CIDB and CIDB Grading level minimum level 6GB or higher	

8.4 Functionality Criteria

8.4.1 Only bid proposals that meets pre-qualification, mandatory requirement and local content and production if is applicable will be considered to be evaluated on functionality criteria,

8.4.2 Stage 1: The bidder must score a minimum of **75%** (depending on the nature of the project) during Stage 1 (functionality / technical) of the evaluation to qualify for Stage 2 of the evaluation where only points for price and B-BBEE will be considered.

8.4.3 The following values/ indicators will be applicable when evaluating functionality:

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0 = Non-compliance, 1 = Poor; 2 = Fair; 3 = Average; 4 = Good; 5 = Excellent.

STAGE 1																		
	Category																	
GUIDELINES FOR CATEGORY CRITERIA	FUNCTIONALITY (To be determine by project managers in line with scope of work): (GUIDELINES FOR CRITERIA APPLICATION)	Weight	Value/ Indicator	Total (Weight X Value awarded)														
A proposed project plan, Methodology and Management of the project in construction, project management and qualified construction health and safety management experience.	<ul style="list-style-type: none"> A details project plan with intermediate and final outputs and identified timeframes/ milestones. Proposed Methodology Management of the project <table border="1"> <thead> <tr> <th>Project plan, methodology and project management in construction, project management and qualified construction health and safety management experience.</th> <th>Indicator</th> </tr> </thead> <tbody> <tr> <td>Project plan and methodology action well broken down; with detailed objectives and milestones.</td> <td>5</td> </tr> <tr> <td>Project plan and methodology, action identification basic; clear objectives and clear milestones.</td> <td>4</td> </tr> <tr> <td>Action plan provided with no deliverables and timeframes.</td> <td>3</td> </tr> <tr> <td>Limited information provided on the action plan</td> <td>2</td> </tr> <tr> <td>Task not well understood.</td> <td>1</td> </tr> <tr> <td>No information provided</td> <td>0</td> </tr> </tbody> </table>	Project plan, methodology and project management in construction, project management and qualified construction health and safety management experience.	Indicator	Project plan and methodology action well broken down; with detailed objectives and milestones.	5	Project plan and methodology, action identification basic; clear objectives and clear milestones.	4	Action plan provided with no deliverables and timeframes.	3	Limited information provided on the action plan	2	Task not well understood.	1	No information provided	0	35		
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Limited information provided on the action plan	2																	
Task not well understood.	1																	
No information provided	0																	
Certified Qualifications of key personnel to be assigned to the project.	<p>Relevant qualification in the areas of in the build environment, construction project management and qualified construction health and safety management experience or equivalent.</p> <table border="1"> <thead> <tr> <th>Qualifications of key personnel</th> <th>Indicator</th> </tr> </thead> <tbody> <tr> <td>A Masters qualification and above</td> <td>5</td> </tr> <tr> <td>An honours or equivalent qualification (s)</td> <td>4</td> </tr> <tr> <td>A degree qualification (s)</td> <td>3</td> </tr> <tr> <td>A three year diploma qualification (s)</td> <td>2</td> </tr> <tr> <td>Two years diploma or a certificates qualification (s)</td> <td>1</td> </tr> <tr> <td>No qualification (s) attached/ submitted</td> <td>0</td> </tr> </tbody> </table>	Qualifications of key personnel	Indicator	A Masters qualification and above	5	An honours or equivalent qualification (s)	4	A degree qualification (s)	3	A three year diploma qualification (s)	2	Two years diploma or a certificates qualification (s)	1	No qualification (s) attached/ submitted	0	15		
Qualifications of key personnel	Indicator																	
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An honours or equivalent qualification (s)	4																	
A degree qualification (s)	3																	
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Two years diploma or a certificates qualification (s)	1																	
No qualification (s) attached/ submitted	0																	
Technical Capability/ expertise and track record of key personnel to be assigned to the project in construction, project management and qualified construction health and safety management experience.	<ul style="list-style-type: none"> Bidder (s) are required to demonstrate that they have the necessary resources and technical expertise to undertake and successfully complete the project. Bidder (s) should submit curriculum vitae for the key personnel proposed to be employed on the project. Curriculum vitae are to include specific details of these individuals including, inter alia, relevant experience and to include three contactable reference, technical qualifications and past experience in construction, project management and qualified construction health and safety management experience. <table border="1"> <thead> <tr> <th>Experience of key personnel registered with SACPCMP in construction project management and construction health and safety management experience.</th> <th>Indicator</th> </tr> </thead> <tbody> <tr> <td>6 years 'or more experience</td> <td>5</td> </tr> <tr> <td>5 years' experience</td> <td>4</td> </tr> <tr> <td>4 years' experience</td> <td>3</td> </tr> </tbody> </table>	Experience of key personnel registered with SACPCMP in construction project management and construction health and safety management experience.	Indicator	6 years 'or more experience	5	5 years' experience	4	4 years' experience	3	30								
Experience of key personnel registered with SACPCMP in construction project management and construction health and safety management experience.	Indicator																	
6 years 'or more experience	5																	
5 years' experience	4																	
4 years' experience	3																	

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	<table border="1"> <tr> <td>3 years' experience</td> <td>2</td> </tr> <tr> <td>1 - 2 years' experience</td> <td>1</td> </tr> <tr> <td>No experience</td> <td>0</td> </tr> </table>	3 years' experience	2	1 - 2 years' experience	1	No experience	0										
3 years' experience	2																
1 - 2 years' experience	1																
No experience	0																
<p>The company's experience, track record and knowledge in the fields of construction management and project management</p> <ul style="list-style-type: none"> Bidder (s) are required to demonstrate relevant past experience and competency of the company in construction, project management and qualified construction health and safety management experience. Bidder (s) should submit full details of, and at least three reliable contactable signed references for, projects of a similar scope which were successfully completed in the previous years in construction, project management and qualified construction health and safety management experience. <table border="1"> <thead> <tr> <th>Company experience in construction, project management and qualified construction health and management experience.</th> <th>Indicator</th> </tr> </thead> <tbody> <tr> <td>10 years 'or more experience</td> <td>5</td> </tr> <tr> <td>8-9 years' experience</td> <td>4</td> </tr> <tr> <td>5-7 years' experience</td> <td>3</td> </tr> <tr> <td>3-4 years' experience</td> <td>2</td> </tr> <tr> <td>1-2 years' experience</td> <td>1</td> </tr> <tr> <td>No experience</td> <td>0</td> </tr> </tbody> </table>	Company experience in construction, project management and qualified construction health and management experience.	Indicator	10 years 'or more experience	5	8-9 years' experience	4	5-7 years' experience	3	3-4 years' experience	2	1-2 years' experience	1	No experience	0	20		
Company experience in construction, project management and qualified construction health and management experience.	Indicator																
10 years 'or more experience	5																
8-9 years' experience	4																
5-7 years' experience	3																
3-4 years' experience	2																
1-2 years' experience	1																
No experience	0																
Total points on functionality		100															

8.5 STAGE 2: Preference Point System (80/20) (is applicable unless specified on panel of service providers without financial evaluations).

8.5.1. Calculation of points for price

The PPPFA prescribes that the lowest acceptable bid will score 80 points for price. Bidders that quoted higher prices will score lower points for price on a pro-rata basis. Where functionality is set as a criteria, only bid proposals that meets functionality requirements will be considered to be evaluated on price and B-BBEE.

8.5.2. Calculating of points for B-BBEE status level of contribution

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Points will be awarded to a bidder for attaining the B-BBEE status level of contribution or a sworn affidavit certified by the commissioner of oath in accordance with the table below:

B.	PRICE	80	
C.	B-BBEE Status Level Contributor		Number of points (80/20)
	1		20
	2		18
	3		14
	4		12
	5		8
	6		6
	7		4
	8		2
	Non –compliant contributor		0

8.5.3 Requirements for B-BBEE

- a) Bidders must submit original and valid B-BBEE Status Level Verification Certificate or certified copies thereof, issued by **SANAS** only. The Exempted Micro Enterprise that do not have B-BBEE certificate must submit an original/ certified copy of the DTI sworn affidavit in terms of Codes of good practice certified by Commissioner of Oath together with their bids, to substantiate their B-BBEE claims.
- b) A trust, consortium or joint venture must submit a consolidated B-BBEE Status Level Verification Certificate for every separate bid to substantiate their B-BBEE rating claims. Bidders who do not submit B-BBEE Status Level Verification Certificates or are non-compliant contributors to B-BBEE do not qualify for preference points for BBBEE but should not be disqualified from the bidding process.
- c) They will score points out of 80 for price only and zero (0) points out of 20 for BBBEE. The points scored by a tenderer for B-BBEE contribution must be added to the points scored for price and should be rounded off to the nearest two decimal places.
- d) In a case whereby a **pre-qualification criteria** requires BBB-EE status level of contributor, all tenderer who failed to submit an original and valid B-BBEE Status Level Certificate or certified copies thereof, issued by SANAS or an original/ certified copy of the DTI sworn affidavit will be disqualified on **Pre-qualification stage** and will not reach preference point system stage due to non-compliance.
- e) A bidder will not be awarded the points claimed for B-BBEE status level of contribution if it is indicated in the bid documents that such a bidder intends subcontracting more that 25% of the contract value to any other enterprise that does not qualify for at least the same number of points that the bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.
- f) The contract will be awarded to the tenderer scoring the highest points.

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9. SPECIAL CONDITIONS OF CONTRACT

- 9.1 The performance measures for the delivery FOR APPOINTMENT OF BUILDING CONTRACTORS FOR THE CONSTRUCTION OF GREEN BUILDING STRUCTURES (58 ABLUTION FACILITIES) IN THE EASTERN CAPE UNDER THE SANITARY APPROPRIATE INITIATIVE FOR EDUCATION (SAFE) PROGRAMME. IT IS REQUIRED THAT TENDERERS MUST HAVE A CIBD CONTRACTOR GRADING DESIGNATION OF 6GB OR HIGHER will be closely monitored by DEA.
- 9.2 The Service Provider/s will submit weekly progress reports to the Programme manager, on a Friday before end of business after the end of each week for the duration of the project. Failure to submit the required reports on time will result in penalties. Reports must be emailed to the Programme Manager.
- 9.3 The Programme manager shall do the ongoing performance management of the service agreement (4.4.2).
- 9.4 The Service Provider/s must guarantee the presence of the senior in charge of fieldwork throughout the duration of the contract. Prior to the appointment of a replacement, the Programme Manager must approve such appointment. If the senior has to leave the project, a period of at least a month is required, in which the senior must work parallel with the next person (senior consultant with similar expertise and equal years of experience) appointed able to transfer skills and knowledge.
- 9.5 All the conditions specified in the **General Conditions of Contract (GCC)** will apply and where the conditions in the special conditions of contract contradicts the conditions in the general conditions of contract the special conditions of contract will prevail.
- 9.6 Please take note that DEA is not bound to select any of the firms submitting proposals. DEA reserves the right not to award any of the bids and not to award the contract to the lowest bidding price.
- 9.7 Bidders must score a minimum of **75%** (The minimum qualifying score that must be obtained for functionality in order for a tender to be considered further should not be generic. It should be determined separately for each tender on a case-by-case basis. The minimum qualifying score must not be prescribed so low that it may jeopardize the quality of the service required nor so high that it may be restrictive to the extent that it jeopardizes the fairness of the SCM system).

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- 9.8 The proposal should include, amongst other, the following:
 A proposed plan of action;
 A list of references;
 Ability to ensure continuing of staff on the project.
- 9.9 **A valid copy of the Tax Clearance Certificate/ Tax Compliance Status Pin issued by SARS to the supplier/copy of Central Supplier Database (CSD)/ MA supplier Number must be submitted together with the bid.**
- 9.10 In case of bids where Consortia / Joint Ventures / Sub-contractors are involved, such must be clearly indicated and each party must submit a separate copy of a valid Tax Clearance Certificate or copy of Tax Compliance Status Pin or CSD/ MA supplier Number together with the bid.
- 9.11 Failure to submit a valid Tax Clearance Certificate/ Tax Compliance Status Pin/ copy of CSD/ MA supplier Number may result in the invalidation of the bid.
- 9.12 **A foreign recommended bidder** with neither South African tax obligation nor history of doing business in South Africa must complete Standard Bidding Document (SBD 1) and the information must be submitted to SARS on the following email governmentinstitute@sars.gov.za to issue a confirmation of the tax obligation letter in terms of **paragraph 3.6** of the instruction note no 9 of 2017/18.
- 9.13 Comprehensive Curriculum Vitae's (CV) of the staff who will be available for the duration of the contract must be attached. **In case where bidders submitted CV's of personnel from other companies, bidders must indicate if the personnel is sub-contracted or employed full time or part-time, and indicate the period of the engagement with the bidder. A signed agreement between two parties or an agreement between personnel and a company must be included with the proposal.**
- 9.14 The bid proposals should be submitted with all required information containing technical information.
- 9.15 DEA Entity Maintenance form included in the bid documents must be completed and returned with the bid proposals).
- 9.18 DEA will not be held responsible for any costs incurred by the bidder in the preparation, presentation and submission of the bids.
- 9.19 Travelling costs and time spent or incurred between home and office of consultants and DEA office will not be for the account of DEA.
- 9.20 **Tender** offers shall be submitted as an original only. Under no circumstances whatsoever may the tender forms be retyped or redrafted. Photocopies of the original tender documentation may be used, but an original signature must appear on such photocopies.
- 9.21 Tenderers must **submit two (2)** identical proposals for each bid clearly marked **"ORIGINAL" and "COPY"**.
- 9.22 The submission of bids shall be in **two (2) large envelopes ("ORIGINAL" and "COPY")** each inclosing **three (3) separate envelopes** as detailed in the BID SUBMISSION CHECKLIST below, and clearly marked on the outside of the respective envelope:

ENVELOPE 1: "Qualification Documents"

ENVELOPE 2: "Technical Proposal"

23 April 2019

ENVELOPE 3: “Financial Proposal” – sealed!

The Financial Proposal shall be sealed and no financial information shall be contained in the “Qualification Documents” or “Technical Proposal”. If financial information is included in the “Qualification Documents” or in the “Technical Proposal” the **tender may be rejected**.

The package shall display the following information:

- The address where Tenders have to be sent;
- The title of the call for Tenders such as indicated in the invitation letter;
- The Tenderer’s name, physical (street) and postal address, contact person and contact numbers (mobile, landline, facsimile and e-mail);
- The following words clearly visible: “Invitation to Tender – Not to be opened by the Postal Service”.

9.23 DEA reserves the right to award the contract to one or more than one service provider or only part thereof per cluster.

9.24 Before any work can commence the service level agreement must be signed by both parties (DEA and the successful bidder) as well as the issue of an official order.

9.25 Should there be any dispute regarding the finalisation of the agreement, DEA reserves the right to cancel the contract with no cost implications for the Department.

9.26 The evaluation of Bids can only be done based on information required by the department.

9.27 Tenderers are requested to submit the original and valid B-BBEE Status Level Verification Certificate or certified copies thereof issued by SANAS only or DTI SWORN Affidavit certified by Commissioner of Oath together with their bids, to substantiate their B-BBEE rating claims, failing which the B-BBEE preference points claimed will be forfeited.

9.28 In a case whereby a pre-qualification criteria requires B-BBEE status level of contributor bidders **MUST** submit an original or certified copies of B-BBEE certificate or DTI SWORN affidavit, failure to submit an original or certified copies will result in bid being disqualified.

9.29 A trust, consortium or joint venture must submit a consolidated B-BBEE Status Level Verification Certificate for every separate bid to substantiate their B-BBEE rating claims.

9.30 Public entities and tertiary institutions must also submit B-BBEE Status Level Verification Certificates together with their bids.

23 April 2019

- 9.31 A bidder will not be awarded the points claimed for B-BBEE status level of contribution if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the contract value to any other enterprise that does not qualify for at least the same number of points that the bidder qualifies for unless the intended sub-contractor is an EME (Exempted Micro Enterprise) that has the capacity and the ability to execute the sub-contract.
- 9.32 A contractor is not allowed to sub-contract more than 25% of the contract value to another enterprise that does not have equal or higher B-BBEE status level, unless the intended sub-contractor is an EME (Exempted Micro Enterprise) that has the capability and ability to execute the sub-contract.
- 9.33 Prospective suppliers and / or public entities interested in pursuing opportunities with the Department and within the South African government must register on the National Treasury Central Supplier Database.
- 9.34 Prospective suppliers and / or public entities must provide the department with their CSD registration number on submission of their bid proposals including those of sub-contractors and/ or joint venture companies.
- 9.35 Any supplier who is not registered on CSD during an award stage of the tender will not be considered.
- 9.36 In light of the significance of this work, a briefing session will be held by the department, at a date and venue to be confirmed, for bidders who are not familiar with the Value Added Industry programmes construction methodology.
- 9.37 Bidders will allow for insitu inspections by the department's representatives and these can be unannounced inspections.
- 9.38 Certain green building components may be provided by the department, as per the Bill of Quantity.
- 10 Sub-contracting conditions/ requirements**
- 10.1 In a case whereby sub-contracting is not set as a pre-qualification criteria, however the tenderer is intending to sub-contract portion of work, such tenderer awarded a contract may only enter into sub-contracting arrangements with the approval of the department.
- 10.2 In relation to a designated sector, a contractor will not be allowed to subcontract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 10.3 A tenderer will not be awarded the points claimed for B-BBEE status level of contribution or contract if it is indicated in the bid documents that such a bidder intends subcontracting more than 25% of the contract value to any other enterprise that does not qualify for at least the same number of points that the bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.
- 10.4 The contractor is not allowed to sub-contract more than 25% of the contract value to another enterprise that does not have equal or higher B-BBEE status level, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.

23 April 2019

11 Payment terms

DEA undertakes to pay out in full or as per deliverables within 30 (thirty) days all valid claims for work done to its satisfaction upon presentation of a substantiated claim and the required reports stipulated in special conditions. No payment will be made where there is outstanding information/work not submitted by the Service Provider/s until that outstanding information is submitted.

12 Technical enquiries

Should you require any further information in this regard, please do not hesitate to contact in writing:

Name: Mr Ricardo Andrews

E-Mail: randrews@environment.gov.za

And

Name: Ms Berne van Wyk

E-Mail: berne.vanwyk@vai.org.za

PROPOSED NEW ABLUTIONS
CLUSTER 7 - MTHATHA

for

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

at

MTHATHA DISTRICT

In

EASTERN CAPE PROVINCE

PROVISIONAL BILLS OF QUANTITIES

VALUE ADDED INDUSTRIES QUANTITY SURVEYOR

CAPE TOWN

PROPOSED NEW ABLUTIONS
CLUSTER 7 - MTHATHA

for

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

at

MTHATHA DISTRICT

In

EASTERN CAPE PROVINCE

QUANTITY SURVEYORS:

VALUE ADDED INDUSTRIES QUANTITY SURVEYOR

BLACKHEATH

CAPE TOWN

7580

TEL: 081 017 9105

E-MAIL: berne.vanwyk@vai.org.za

CONSULTING ENGINEERS

NESCONSULT & ASSOCIATES (PTY) LTD

7 BOZONIA STREET

KUILSRIVIER

7580

TEL: 083 270 3947

E-MAIL: dirk@nesconsult.co.za

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NOTES TO TENDERERS

DOCUMENTS

The Drawings, Articles of Agreement and Conditions of Contract are attached to these documents.

DESCRIPTIONS

These Provisional Bills of Quantities are to be read in conjunction with the latest issue "MODEL PREAMBLES FOR TRADES 2008" recommended and published by the Association of South African Quantity Surveyors which contain the full description of the work to be done and materials to be used and unless otherwise described in these Provisional Bills of Quantities, reference should be made to "MODEL PREAMBLES FOR TRADES 2008" for the full meaning of descriptions of work to be done and materials to be used in this service.

QUOTATIONS

Quotations shall hold good for a period of **forty-five (45) days** from the date of submission and shall not be altered, amended nor withdrawn during that period. The lowest, or any, or portion of any quotation will not necessarily be accepted.

Value Added Tax (VAT) shall be added as lump sum inserted against the appropriate item on the Final Summary page of the Provisional Bills of Quantities.

FORM OF TENDER

At the submission of tender the following must be submitted:

- Completed and duly signed FORM OF TENDER
- Priced bill of quantities with all rates fully extended, calculated and checked - This remains the responsibility of the tenderer
- Principle Building Agreement: Contract data (annexure A)

SCOPE OF CONTRACT

The work comprises the supply of all necessary labour, materials, plant, equipment and transport required to complete the PROPOSED NEW ABLUTIONS, CLUSTER 7 – MTHATHA as indicated on the attached Architects and Engineers drawings & Specifications contained in these Bills of Quantities.

The structure comprises of:

- Reinforced raft floor slab on compacted platform
- Biomass insulated concrete precast wall panels
- IBR roof covering fixed on steel purlins
- Plumbing and drainage
- Septic tank and soak away installation
- Doors and galvanised steel frames
- Toilet cubicles
- Painting etc

DRAWINGS

The Bills of Quantities have been prepared from measurements and in conformity with the drawings of which will be provided electronically.

Architect Drawings No's: 18023/EC58/CLUSTER 7 MTHATHA

PROCEDURE

The building operations must be executed in such an order and manner as may be directed by the Principal Agent and described in Preliminaries.

CONTRACT PRICE ADJUSTMENT

Items referring to Contract Price Adjustment will not be applicable on the contract. See clause 38.5.3 in the Preliminaries. **“Fixed Price Tender”**.

MANAGE OF THE WORKS

The onus is on the contractor to ensure that all work carried out by others prior to the installation of its goods is formally accepted by its duly appointed agent, as no costs arising out of its failure to follow this procedure will be considered for reimbursement. The cost of remedial work arising from damage caused to existing works by the contractor shall be borne by it.

CONSTRUCTION PROGRAMME

The main contractor is required to prepare a programme in co-ordinating its works, including all sub – and direct contractors work at submission of tender.

SITE CLEANLINESS

The tenderer shall, at its own cost and expense, be responsible for the daily removal of its waste material from the areas in which it is working, and to place such material in a waste bin or area designated by the Employer.

OCCUPATION OF EXISTING SITE:

The site will be in full operation during the duration of the construction period. The contractor must at all times take special care to execute its works around the children and their operations during school hours. The restrictions to the site are fully described the scope of the hoardings required and temporary access of the contractor during the construction period in the attached drawing No **18023/EC58/Cluster 7 Mthatha ANNEXURE** marked “H”

THE SITE:

The sites Cluster 7 – Mthatha is situated in the Mthatha district, Eastern Cape.

SCHOOL	CO-ORDINATES		TYPE OF BUILDING
	LATITUDE	LONGITUDE	
Dudumayo Senior Secondary	-31.9274068	29.0185569	E52
Mqanduli Village Junior Secondary	31.8505575	28.7272648	E52
Pangindela Junior Secondary	31.8280398	28.752555	E52
Gwebinkundla Junior Secondary	-31.82248	28.7272113	B27
Futye Junior Secondary	-32.0048628	28.6480427	A19
Maxwele Senior Secondary	-31.6896379	28.6965555	A19
Springvale Primary Junior	-31.6818044	28.682973	A19
Vulindlela Senior Primary	-31.6333614	29.3684263	A19
Ntlukuhla Junior Secondary	-31.2470431	29.9657961	A19

The sites are open and easily accessible.

The soil conditions are a mixture of sand/clay/soft rock. No geotechnical soil report is available. DCP results are available.

PROTECTION OF COMPLETED WORK

The tenderer shall, at its own cost and expense, ensure the adequate protection of its own completed work.

ANNEXURES

The tenderer is referred to all the attached ANNEXURES marked A to H and shall abide by the terms and conditions of these Annexures.

HEALTH AND SAFETY GUIDELINES

The tenderer should take carefully note of the contents of the Health and Safety Specifications attached to these tender documents and it should be implemented strictly in accordance to this plan.

All the requirements in these specifications should be followed strictly.

In failing to adhere these specifications can result in stopping the works by the Principal Agent, Client or Department of Education, etc. Any delays which may occur by this will be for the account of the Tenderer.

LICENSE AGREEMENT (ANNEXURE B)

The contractor's attention is drawn to the "License Agreement" as attached. The successful tenderer will be required to enter into such an agreement with the employer and to adhere to the requirements thereof. Note that the stated maintenance inspections and Guarantee as stated under item 7.6 of this agreement will be in addition and will not have any bearing on the Defects Liability Period and Latent Defects Liability Period as per the JBCC contract.

CLIENT

The client's information is as follows

Department of Environmental Affairs

Physical address: 473 Steve Biko Road, Arcadia, Pretoria, 0001

Postal address: Private Bag X441, Pretoria, 0001

VAT No: N/A

Contact person: Value Added Industries on behalf of Department of Environmental Affairs - Kathleen Saunders – 083 728 6190 (kathleen.saunders@vai.org.za)

CLOSING OF TENDERS

Hard copies of the tender to be submitted on Friday 11 October 2019 at 14h00 to :

Value Added Industries

Regus Business Centre

Corner of Ferreira and Van Der Merwe Streets

Nelspruit

1200

CONTRACT PERIOD

Forty (40) Working days: **Time is of the essence.**

PENALTIES: R1 500.00 (One Thousand Five Hundred Rand) per calendar day for each school in cluster

SITE INSPECTION MEETING

Site Inspection meeting and site handover will take place simultaneously.

COMMENCEMENT DATE: 21 October 2019

COMPLETION DATE

Practical completion: 6 December 2019

Completion: 13 December 2019

ANNEXURE “A”

PRINCIPLE BUILDING AGREEMENT: CONTRACT DATA

FORM OF TENDER

ANNEXURE “A” FORM OF TENDER

1. Tenderer’s details

Name			
Legal entity of above		Contact person	
Business registration number		Telephone number	
VAT/GST number		Mobile number	
Country		E-mail	
Postal address			
		Postal Code	
Physical address			
		Postal Code	

2. Acceptance of tender conditions

By submission of this tender to the employer the tenderer offers and agrees to execute and complete the **works** and to remedy any **defects** in conformity with the specification for the tender amount stated.

The tender shall remain in full legal force for forty-five (45) **calendar days** from the closing date of the tender. The tenderer accepts liability for loss or damages that may be suffered by the employer should the tender validity period not be honoured.

The lowest or any tender will not necessarily be accepted by the **employer** nor will reasons be given for such a decision.

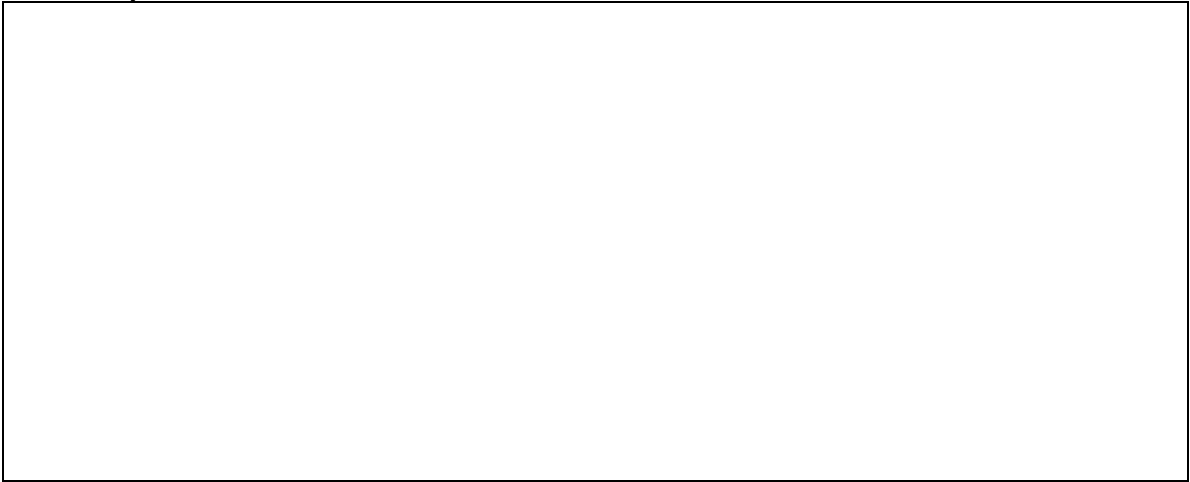
3. Tender amount compilation

			Amount
Tenderer’s work excluding tax			
Tax	15.00	%	
Total tender amount including tax			
Total tender amount including tax , in words			

Signature	Tenderer who by signature hereto warrants authority		Place	
Name		Capacity	Date	

Signature	Witness		Place	
Name		Capacity	Date	

4. Tender qualifications



ANNEXURE “B”

LISENCE AGREEMENT

ANNEXURE “C”

HEALTH AND SAFETY SPECIFICATIONS FOR CONSTRUCTION WORK

ANNEXURE “D”

WAIVER OF LIEN AND FORM OF INDEMNITY

ANNEXURE “D”

FORM OF INDEMNITY

FOR			
TO			
We,			
Hereby indemnify and hold free			
The employer			
The principal agent			
The engineer			
From responsibility for any claim or proceeding whatsoever due to fault design, calculations, manufacturing and execution of the work undertaken by us.			
Thus, done and signed at			
On this		day of	2017
As Witness			For and on behalf of the contractor who by his signature warrants that he is authorized hereto

ANNEXURE “E”

AUTHORITY OF SIGNATORY

Signatories for companies or closed corporations must establish their authority by producing a copy of the relevant resolution of the Board of Directors or members of the closed corporations, duly signed and dated.

An example is shown below:

ANNEXURE "E"**AUTHORITY FOR SIGNATORY**

"By Resolution of the *Board of Directors/Members of the Company/Closed Corporation on			
	Day of		2019
*Mr/Mrs			
has been duly authorised to sign all documents in connection with Contract No. QQS553 EC58: Proposed new ablutions, Cluster 1 - Maluti			
On behalf of			

SIGNED ON BEHALF OF *COMPANY/ CLOSED CORPORATION	
IN THE CAPACITY AS	
DATE	
SIGNATURE OF SIGNATORY	

* Delete if not applicable

ANNEXURE “F”

FORM OF RESPONSIBLE PERSON

**ANNEXURE “F”
FORM OF RESPONSIBLE PERSON**

.....
.....
.....

Sir,

**PROPOSED NEW ABLUTIONS
CLUSTER 1 - MALUTI**

In terms of the requirements of the bill of quantities and to implement the powers vested in me thereby, you are hereby appointed the responsible person in charge of the operations by the scope of the contract, between your firm:

.....
and

By virtue of this appointment you will be responsible to the Principal Agent.

.....

RESPONSIBLE PERSON

You will assist in ensuring safety and proper discipline, as well as the observance of the Regulations by all persons employed on the said contract. It will be part of your duty to ensure that the necessary safety equipment required is always available, and to comply with all the requirements in regard to Health and Safety Acts.

You will further carry out any instructions given to you in the interest of safety, by the Principal Agent or his authorised deputy.

Your appointment dates from.....

Yours faithfully

.....
PROJECT MANAGER

I hereby accept the above appointment and acknowledge having received a copy of this letter

.....
**Person Accepting Responsibility
for Safety**

.....
Date

ANNEXURE “G”
SITE INSPECTION MEETING CERTIFICATE

ANNEXURE “G”**SITE INSPECTION MEETING CERTIFICATE**

PROJECT:			
TENDER NO:			
CLOSING DATE:			
This is to certify that I...			
Representing			
Visited the site on			
<p>I familiarised myself with the all local conditions likely to influence the work and the cost thereof. I further certify that we are satisfied with the description of the work and explanations given at the site inspection meeting and that I understand perfectly the work to be done, as specified and implied, in the execution of this contract.</p>			
SIGNATURE: NAME OF TENDERER		DATE	
SIGNATURE: REPRESENTATIVE OF CLIENT		DATE	

ANNEXURE “H”

DRAWINGS

Copyright © Agrément South Africa, October 2018

Subject:

Lighthouse Building System

Certificate holder:

Working on Fire (Pty) Ltd

PO Box 15052, West Acres, Mpumalanga

Phone: +27 13 741 6400 Cell phone: +27 83 270 3947

E-mail: dirk@nesconsult.co.za

The master copy of this document appears on the website:

<http://www.agrement.co.za>

Validity

Users of any Agrément certificate should check its status: all currently valid certificates are listed on the website. In addition, check whether the certificate is [Active or Inactive](#).

The certificate holder is in possession of a confirmation certificate attesting to his status.

SANS 10400 *The application of the National Building Regulations*

Quick guide

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Use

The certificate covers the use of Lighthouse Building System in all regions of South Africa for the erection of single-storey buildings for the occupancy classes (**SANS 10400: Table 1 of Regulation A (20) (1)**) set out below:

- places of instructions (A3)
- moderate and low risk commercial service (B2 & B3)
- moderate and low risk industrial (D2 & D3)
- health care (E4)
- small shops (F2)
- offices, including day clinics (G1)
- hotels (H1) (130 mm wall only)
- dormitory (H2)
- domestic residence (semi-detached houses or row houses) (H3) and
- dwelling house (detached) and related outbuildings (H4).

P O Box 72381 Lynnwood Ridge 0040

Telephone 012 841 3708

Fax 012 841 2539

e-mail agrement@agrement.co.za

<http://www.agrement.co.za/>

Agrément South Africa has approved Lighthouse Building System for single-storey buildings. The system may however be used for multi-storey applications provided an **approved competent engineer takes full responsibility**.

EASTERN SCHOOLS 58 CLUSTER ALLOCATIONS

Grouping	School name	Latitude	Longitude	Clusters	Status	Area
1	Belfort Junior Primary School	-30.18801	28.72492	1	Visited	Maluti
2	Emazizini Senior Primary School	-30.19198	28.85276	1	Visited	Maluti
3	Gudlintaba Junior Secondary	-30.21462	28.89342	1	Visited	Maluti
4	Moliko Junior Primary School	-30.26823	28.78105	1	Visited	Maluti
5	Emitshatshaneni Primary School	-30.48415	28.59825	1	Visited	Maluti
6	Mandileni Primary School	-30.72506	28.80197	1	Visited	Maluti
7	Tsekong Primary School	-30.6857	28.4858	1	Visited	Maluti
8	Tshisa Primary School	-30.48201	28.64288	1	Visited	Maluti
9	Izwelethu Senior Primary School	-30.95768	30.0321	2	Visited	Mbizana
10	Lukholo Junior Secondary School	-30.96451	29.97045	2	Visited	Mbizana
11	Monti Junior Secondary School	-30.95263	29.86632	2	Visited	Mbizana
12	Ncenjane Junior Primary School	-30.87649	30.04037	2	Visited	Mbizana
13	Dlungwana Senior Primary	-30.79268	29.81878	2	Visited	Mbizana
14	Emdeni junior Secondary	-30.84917	29.73944	2	Visited	Mbizana
15	Gecelo Junior Primary School	-30.82216	29.84686	2	Visited	Mbizana
16	Majazi Junior Secondary School	-30.87121	29.805	2	Visited	Mbizana
17	Marelane Senior Secondary	-30.80947	29.7189	2	Visited	Mbizana
18	Mzamba Senior Secondary	-30.846	29.77555	3	Visited	Mfudsweni
19	Dlepu Junior Primary School	-30.83939	29.53747	3	Visited	Mfudsweni
20	Emgodini Junior Secondary School	-31.01408	29.60921	3	Visited	Mfudsweni
21	Mapakati Senior Primary School	-30.92602	29.60998	3	Visited	Mfudsweni
22	Nyanda Diko Primary School	-31.05046	29.4166	3	Visited	Mfudsweni
23	Tonti Junior Secondary School	-30.8675	29.43912	3	Visited	Mfudsweni
24	Hlankomo Junior Secondary	-30.90905	29.36236	4	Visited	Tabankulu
25	Mhlonyaneni Higher Primary	-30.98689	29.20504	4	Visited	Tabankulu
26	Nkosibomvu Primary School	-30.88665	29.26732	4	Visited	Tabankulu
27	Zweledinga Primary School	-30.85112	29.26497	4	Visited	Tabankulu
28	Celinkungu Primary School	-30.64187	29.2715	5	Visited	Mt Ayliff
29	Mafadobo Senior Primary School	-30.67687	29.6713	5	Visited	Mt Ayliff
30	Marwaqa Junior Secondary	-30.73923	29.33377	5	Visited	Mt Ayliff
31	Mjikweni Primary School	-30.64777	29.52361	5	Visited	Mt Ayliff
32	Myengwa Primary School	-30.8039	29.42363	5	Visited	Mt Ayliff
33	Nqabeni Primary School	-30.66157	29.36403	5	Visited	Mt Ayliff
34	Ntlavini Primary School	-30.72445	29.40085	5	Visited	Mt Ayliff
35	Tela Primary School	-30.75898	29.45613	5	Visited	Mt Ayliff
36	Valipatwa Junior Primary School	-30.69818	29.47483	5	Visited	Mt Ayliff
37	Dabula Primary School	-30.862	29.0072	6	Visited	Dadane
38	Elliot Ndabankulu Makaula Primary School	-30.9218	28.9748	6	Visited	Dadane
39	Lufafa Primary School	-30.87137	29.11762	6	Visited	Dadane
40	Lwandlana Primary School	-31.0413332	28.8859556	6	Visited	Dadane
41	Mpindweni Junior Secondary	-30.89091	29.09982	6	Visited	Dadane
42	Mtshazi Primary School	-30.9384	29.0176	6	Visited	Dadane
43	Mzinto Primary School	-30.83612	29.10118	6	Visited	Dadane
44	Rode Priamry School	-30.82842	29.14015	6	Visited	Dadane
45	DUDUMAYO SENIOR SECONDARY SCHOC	-31.9274068	29.0185569	7	Visited	Mthatha
46	MQANDULI VILLAGE JUNIOR SECONDARY	-31.8505575	28.7272647	7	Visited	Mthatha
47	PANGINDLELA JUNIOR SECONDARY SCHC	-31.8280398	28.752555	7	Visited	Mthatha
48	GWEBINKUNDLA JUNIOR SECONDARY SC	-31.82248	28.7272113	7	Visited	Mthatha
49	FUTYE JUNIOR SECONDARY SCHOOL	-32.0048628	28.6480427	7	Visited	Mthatha
50	MAXWELE SENIOR SECONDARY SCHOOL	-31.6896379	28.6965555	7	Visited	Mthatha
51	SPRINGVALE PRIMARY JUNIOR SCHOOL	-31.6818044	28.682973	7	Visited	Mthatha
52	NTLUKUHULA JUNIOR SECONDARY SCHOC	-31.2470431	26.9657961	7	Visited	Mthatha
53	VULINDLELA SENIOR PRIMARY SCHOOL	-31.6333614	29.3684263	7	Visited	Mthatha
54	VULINKETE SENIOR PRIMARY SCHOOL	-31.9078088	28.5946013	8	Visited	Ndyebo
55	Mganu Primary School	-30.78598	28.93266	8	Visited	Ndyebo
56	Mhluta Junior Secondary School	-30.66617	28.97367	8	Visited	Ndyebo
57	Mpungut yana Junior Secondary School	-30.69773	28.97076	8	Visited	Ndyebo
58	Nguse Junior Secondary School	-30.69961	29.04059	8	Visited	Ndyebo

This certificate and Agrément South Africa's evaluation apply only to Lighthouse Building System buildings that are designed and erected as described and illustrated in this certificate, and where the terms and conditions of certification are complied with.

General description

Lighthouse Building System is designed for the erection of single-storey structures. The building system comprises walls made from biomass concrete. The biomass concrete consists of Portland cement and additives, aggregates and treated wood chips.

The system is erected on a conventional concrete raft foundation that is designed by an approved competent person.

Roofs can either be constructed from conventional light-weight steel or timber trusses, with light- or heavyweight roof cladding. Insulated ceilings are always installed.

Walls are either cast in-situ or made of panels (2400 mm high and 820 mm wide). The density of the cured biomass concrete is 1100 to 1300 kg/m³. Walls are constructed in thicknesses ranging from 80 mm to 200 mm, depending on the needs of the end user. External walls must be plastered on the outside face with a layer of 10 mm thick conventional plaster and skim coated with conventional plaster on the inside face. Internal walls may be left unplastered or plastered with a 1 mm to 5 mm thick conventional plaster.

Window and door frames are conventional or Agrément approved, are purposely made to suit the design of the building and must be properly sealed with an acrylic sealant.

Ducting for services are fixed inside the shuttering but not deeper than 50 mm in the wall panel itself (dividing walls only).

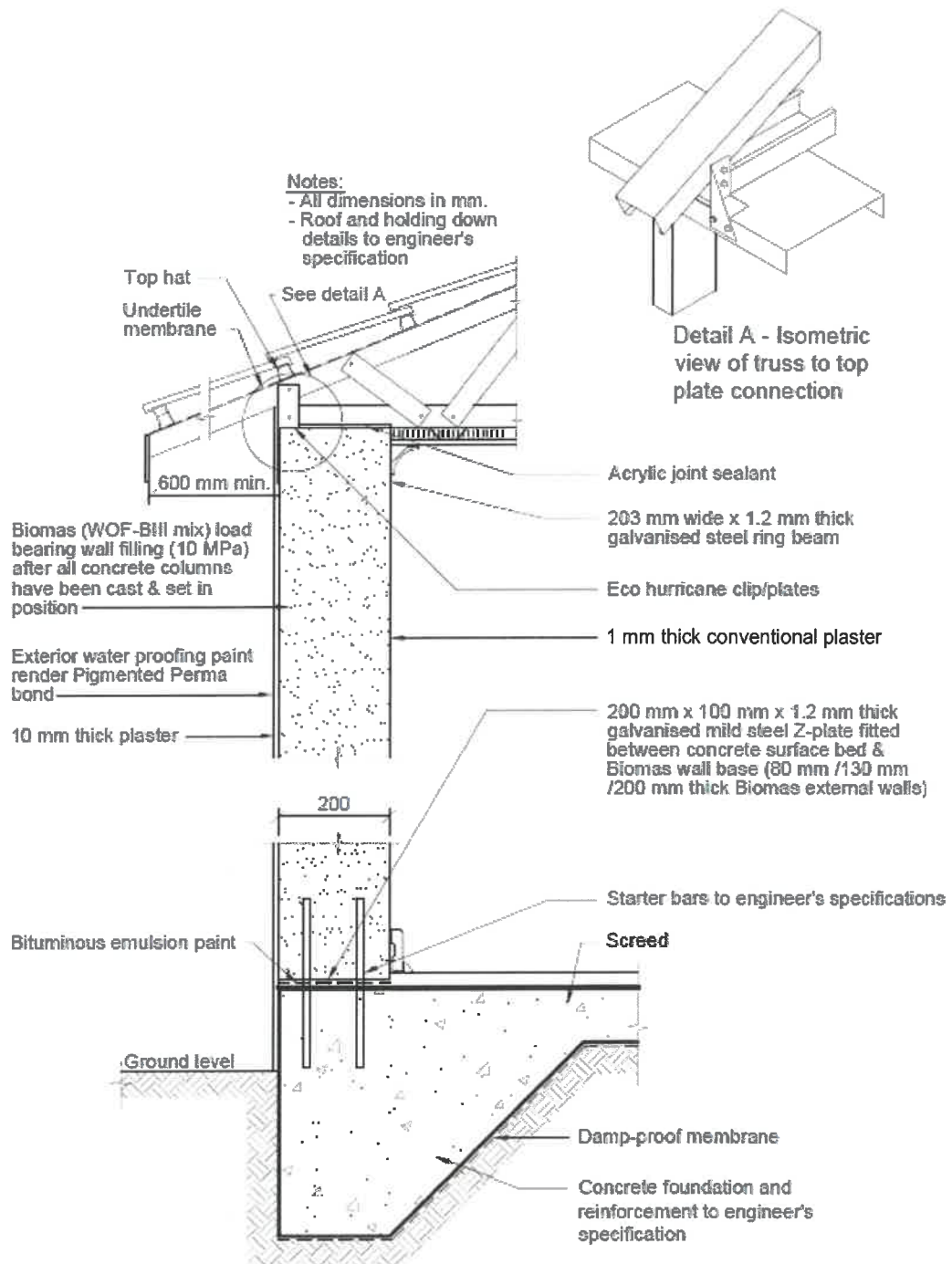


Figure 1: Vertical section through external in-situ wall

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PREAMBLE

This certificate is issued by Agrément South Africa in terms of the Agrément South Africa Act No. 11 of 2015. This certificate:

- has been granted after a technical appraisal of the performance of Lighthouse Building System buildings for the [uses](#) covered by the certificate
- is independent of any patent rights that may or may not subsist in the subject of the certificate and
- does not relieve the certificate holder from the obligation to obtain the prior approval of the building authority concerned for the use of the subject.

Agrément South Africa's opinion is that the quality and performance of Lighthouse Building System will be satisfactory, provided that the requirements stipulated in this certificate are adhered to. However, Agrément South Africa does not on behalf of itself, or the State, or any of its employees or agents guarantee such quality or performance.

Responsibility for compliance with the requirements of this certificate and the quality of the finished buildings resides with the certificate holder.

No action for damages, or any other claim whatsoever, lies against Agrément South Africa, its members, the State or any of its employees should the said components and materials fail to comply with the standard set out in this certificate.

Building authorities or users who are in any doubt about any detail or variation, should contact [Agrément South Africa](#).

The validity of this certificate is reviewed every three years. The certificate shall remain valid as long as Agrément South Africa is satisfied that:

- the certificate holder complies with the general and specific conditions of certification and the technical requirements stipulated in the certificate
- the performance-in-use of the subject is acceptable, and
- any changes in building legislation, regulations, relevant standards or Agrément performance criteria have not invalidated the technical assessment which formed the basis of certification.

Agrément South Africa reserves the right to withdraw the certificate at any time, should reasonable cause exist.

Notices affecting the validity of this certificate will be published in the *Government Gazette*.

PART 1: CONDITIONS OF CERTIFICATION

Licensee - any person or company appointed by the certificate holder and registered with Agrément South Africa to construct Lighthouse Building System in accordance with this certificate and authorized by the certificate holder to claim compliance with the certificate. It is the certificate holder's responsibility to ensure that the licensee carries out the works in compliance with this certificate and in accordance with the approved quality system.

Lighthouse Building System described in this certificate must:

- be designed and erected by the certificate holder or a licensee under the control of a professional engineer or approved competent person
- be constructed in accordance with the technical description (see [Part 3](#)) and the certificate holder's detailed specifications and quality management documentation
- comply with the Conditions of Certification.

Any person required to check on details of construction must refer to the documentation listed above, which is available from the certificate holder.

Lighthouse Building System is a combination of innovative and conventional construction. A change to any one aspect could result in one or more of the other aspects no longer complying with Agrément South Africa's performance criteria. For these reasons, no change may be made to Lighthouse Building System as described and illustrated in this certificate unless such change is approved in writing by Agrément South Africa before it is implemented.

SANS 17050-1 Conformity assessment-Supplier's declaration of conformity Part 1: General requirements.

SANS 17050-2 Conformity assessment-Supplier's declaration of conformity Part 2: Supporting documentation.

Working on Fire (Pty) Ltd shall be responsible for the accuracy of the information contained within the Material Data Sheets, Technical Data Sheets and Material Performance Specifications, and all other information pertaining to the supply and application of Lighthouse Building System. Working on Fire (Pty) Ltd shall submit a COA (Certificate of Analysis) and COC (Certificate of Compliance) in terms of the requirements stipulated in **SANS 17050-1** Suppliers declaration of conformity when requested by Agrément South Africa in accordance with the documentation requirements of **SANS 17050-2**. Should Working on Fire (Pty) Ltd change or substitute any ingredient in the formulation of the product in question, then a notification shall be addressed to Agrément South Africa immediately.

Lighthouse Building System

Tested and approved fit- for-purpose when constructed as specified in

CERTIFICATE 2018/578



General conditions

Marking

A plaque at least 100 mm x 75 mm, with Agrément South Africa's identification logo together with the number of this certificate, as depicted, must be fixed at an appropriate position to an external wall of all Lighthouse Building System buildings.

Validity

The continued validity of this certificate is subject to a satisfactory review by Agrément South Africa every three years.

Quality monitoring

The certificate holder is required to participate in Agrément South Africa's post-certification quality management system, which requires:

- that the certificate holder shall continue to implement and manage the quality system approved by Agrément South Africa in the assessment of Lighthouse Building System
- the certificate holder to notify Agrément South Africa within 30 days of any change of address of a factory and any new factories brought into operation by the certificate holder, for the purpose of manufacturing the subject of the certificate
- the certificate holder at any time of commencement of each contract, to provide Agrément South Africa with construction sites or structures on which the subject is to be used and
- the co-operation of the certificate holder in facilitating post-certification quality monitoring by Agrément South Africa or its authorised agents.

Reappraisal

- must be requested by the certificate holder prior to making changes to the building system and
- will be required by Agrément South Africa if there are changes to the National Building Regulations or Agrément South Africa.

The conventional aspects of the construction are subject to the rules of good building practice (typically as described and illustrated in Agrément South Africa's *Supplement to certificates* and in the *Home building Manual* issued by the National Home Builders Registration Council), and must comply with the National Building Regulations.

This certificate may be withdrawn if the certificate holder or a registered licensee fails to comply with these requirements.

Requirements of Supplement to certificates that must be met

The *Supplement to certificates: good building practice* (revised 2001) applies to those conventional aspects of Lighthouse Building System that have not been specifically assessed (see Part 2: *Scope of assessment* on next page). Cognisance should be taken of the recommendations contained in the *Supplement to certificates* to ensure that an acceptable standard of construction is consistently maintained.

On behalf of the Board of Agrément South Africa

Signed



Chairperson

October 2018

PART 2: ASSESSMENT

Scope of assessment

This assessment applies to those innovative aspects of Lighthouse Building System described in [Part 3](#) of the certificate. It also applies to those conventional aspects of the building system which, in the opinion of Agrément South Africa, are influenced by the innovative aspects. The innovative aspects referred to are:

- the use of woodchips to create biomass concrete and
- the construction method.

The assessment was based on:

- documentation provided by the applicant
- inspections of the applicant's completed projects
- known behaviour of the materials used in the building system and
- the applicant's quality management system.

Assessment

In the opinion of Agrément South Africa, the building system as described in the certificate is suitable for the construction of buildings of the [types specified](#) (page 1).

The performance-in-use of buildings erected with this system will be such that they will satisfy:

- the relevant requirements for safety and health prescribed by Agrément South Africa
- the requirements of the National Building Regulations, where stated in Table 1 and
- Agrément South Africa's performance criteria and requirements for durability and habitability.

For details see Agrément South Africa's [Assessment criteria: building and walling systems](#)

Agrément South Africa's detailed comments on the assessment are set out in Tables 1, 2 and 3 below. Each aspect of performance was assessed by experts in that field.

Republic of South Africa. **National Building Regulations**, Government Notice No. R711, Government Gazette No. 34586, Pretoria, South Africa, 09 September 2011.

Compliance with the National Building Regulations

The innovative aspects of Lighthouse Building System relate to the National Building Regulations as set out in Table 1. Any regulation not specifically referred to is considered to be outside the scope of this certificate and must be applied by the local authority in the normal manner.

Table 1: Performance

Aspects of performance	Opinion of Agrément South Africa	National Building Regulations satisfied
<i>Fitness-for-purpose of materials used</i>	The materials described in Part 3 meet the requirements of the National Building Regulations.	A13(1)(a) <i>Materials</i>
<i>Behaviour in fire</i>	<p>The wall panels are classified as type FR (non-combustible) with a fire resistance rating of 180 minutes.</p> <p>NB. The fire rating is valid for walls not containing any services or service penetrations deeper than 50 mm.</p>	<p>K4 <i>Walls</i> J1 (1) b <i>Floors</i> L2 <i>Roofs</i></p> <p>T1 (1) (b) and (c) are satisfied as far as walls are concerned.</p> <p>Comments made in <u>Supplement to certificates</u> must be taken into account when building plans are scrutinized by local authorities, to check compliance with Regulations T1 (1)(a), and T1 (1)(d) with regard to spread of smoke, and T1 (1)(e).</p> <p>Deemed-to-satisfy rules TT5.1(c) and TT5.2 (c) of Section 3 of SANS 10400 have been met.</p> <p>With regard to safety distances, external walls are classified type FR (non-combustible), as defined in deemed-to-satisfy rule TT2.1 (a) of Section 3 of SANS 10400 and safety distances as set out in the relevant rules of Part T can therefore be applied.</p>
<i>Structural performance</i>	Satisfactory. Provided the requirements of this certificate are complied with.	<p>J1(1) <i>Floors</i> K1, K3, K4 <i>Walls</i> L1 (b) and (c) <i>Roofs</i></p> <p>Regulations B1 (1) and (2) are deemed to be satisfied as the design and erection of Lighthouse Building System buildings are the responsibility of a professional competent engineer or approved competent person (deemed-to-satisfy rule BB4 of SANS 10400).</p> <p>Regulations H1(1) and H1 (2), <i>Foundations</i>, are deemed to be satisfied as follows:</p> <ul style="list-style-type: none"> • H1 (1) on non-problematic soils; and • H1 (2) in all buildings where foundations are designed by a professional engineer or approved competent person and deemed-to-satisfy rule HH 1(a) applies.
<i>Water penetration and rising damp</i>	Satisfactory. Lighthouse Building System buildings meet Agrément South Africa's criteria for resistance to water penetration and rising damp throughout South Africa provided that suitable sealants, protective coatings and plastering are	<p>K2 (1) <i>Walls</i> J1(2) <i>Floors</i> L1 (b) <i>Roofs</i></p>

	applied.	
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Table 2: Habitability

Aspects of performance	Opinion of Agrément South Africa	Explanatory notes				
Thermal performance	<p>External walls were assessed as having total R-values as indicated in the table below:</p> <p>Total R-values for external walls</p> <table border="1" data-bbox="347 573 740 685"> <thead> <tr> <th>Wall thickness (mm)</th> <th>Biomass panel (m²K/W)</th> </tr> </thead> <tbody> <tr> <td>200</td> <td>3,550</td> </tr> </tbody> </table> <p>SANS 10400 XA-2011 <i>The application of the National Building Regulations Part X: Environmental sustainability Part XA: Energy usage in buildings.</i></p>	Wall thickness (mm)	Biomass panel (m ² K/W)	200	3,550	<p>The annual energy requirement and energy demand of a 53 m² Lighthouse Building System dwelling with roofs of sheet metal or concrete tiles was determined using the BRE U-value Calculator and provided they are insulated in accordance with the requirements of Clauses 4.4.5.3 and 4.4.5.4 of SANS 10400 XA, their performance was assessed as being equivalent to that of standard brick house meeting the requirements of Clause 4.2.1 b) of SANS 10400 XA.</p>
Wall thickness (mm)	Biomass panel (m ² K/W)					
200	3,550					
Energy usage	<p>The energy required to heat Lighthouse Building System buildings in winter will be less than that required for a standard brick house.</p>					
Condensation	<p>Satisfactory. When insulated ceilings are installed, Lighthouse Building Systems perform better than a standard brick house.</p>	<p>Condensation is generally a problem in the Southern Coastal Condensation Problem Area (SCCP Area). Agrément South Africa requires that the minimum standard of performance be equivalent to that of the standard brick dwelling which is, itself, not immune to condensation problems.</p>				
Acoustic performance	<p>Satisfactory. Agrément South Africa's performance criteria for sound attenuation between adjacent rooms and dwellings have been met.</p> <p>SANS 10218: Part 1 <i>Acoustical properties of buildings.</i></p>	<p>Agrément South Africa's opinion is based on a theoretical analysis of the frequency-weighted sound reduction index, R_w the value that is likely to be obtained between adjacent rooms is 49 dB($D_{nT,w}$);</p> <p>This value meet Agrément South Africa's criteria and most of the recommended sound insulation values set out in SANS 10218: Part 1.</p> <p>A description of the degree of acoustic privacy that can be expected between specific rooms for various degrees of sound insulation is given in Supplement to certificates.</p>				
Durability	<p>Satisfactory. Durability of Lighthouse Building System buildings will be satisfactory provided the requirements given in this certificate are adhered to, the building materials and buildings being kept dry and waterproof, and are adequately and regularly maintained.</p>	<p>Agrément South Africa's opinion is based on knowledge of the materials used and an analysis of the construction details specified in the design of buildings constructed using Lighthouse Building System.</p>				

Table 3: Quality management system

Aspects of performance	Opinion of Agrément South Africa	Explanatory notes
<i>Quality management system</i>	The certificate holder's quality management system complies with Agrément South Africa's requirements. Properly applied, it will ensure that quality in the manufacture and erection of Lighthouse Building System will be consistently maintained.	Agrément South Africa's requirements are based on SANS/ISO 9001 . SANS/ISO 9001 Quality management systems – Requirements.

PART 3: TECHNICAL DESCRIPTION

General description

Lighthouse Building System is designed for the erection of single-storey structures. The building system comprises walls made from biomass concrete. The biomass concrete consists of Portland cement and additives, aggregates and treated wood chips.

The system is erected on a conventional concrete raft foundation that is designed by an approved competent person.

Roofs can either be constructed from conventional light-weight steel or timber trusses, with light- or heavyweight roof cladding. Insulated ceilings are always installed.

Walls are either cast in-situ or made of panels (2400 mm high and 820 mm wide). The density of the cured biomass concrete is 1100 to 1300 kg/m³. Walls are constructed in thicknesses ranging from 80 mm to 200 mm, depending on the needs of the end user. External walls must be plastered on the outside face with a layer of 10 mm thick conventional plaster and skim coated with conventional plaster on the inside face. Internal walls may be left unplastered or plastered with a 1 mm to 5 mm thick conventional plaster.

Window and door frames are conventional or Agrément approved, are purposely made to suit the design of the building and must be properly sealed with an acrylic sealant.

Ducting for services are fixed inside the shuttering but not deeper than 50 mm in the wall panel itself (dividing walls only).

Manufacturing

Lighthouse Building System is manufactured by Working on Fire (Pty) Ltd.

The process of preparing and drying the chips can be performed with low skills levels using the Working on Fire (Pty) Ltd Training Manual.

All precast concrete work is done in a factory or in open-air casting yards set up at the construction site. The walls are cast in-situ in vertical steel or timber shuttering with adjustable sides. The shuttering for panels are

steel-edged forms on specially cast concrete surface beds with upper surfaces trowelled to a smooth finish.

The blanking shutters for windows and door openings are placed in position when vertical in-situ casting is performed.

Handling, transportation and storage

Lighthouse Building System walls are manufactured on site and the material is delivered on site in accordance with that particular project. The biomass concrete is offloaded either by hand or forklift. Gloves must always be worn during the handling of material.

If it is necessary to store the material on site by stacking it on pallets, care must be taken to ensure it is stacked flat, and that it is kept dry, clean and undamaged.

Erection process

Foundations and surface beds

Foundations and surface beds are conventional. A competent person classifies the site in accordance with the site class designation set out in Table 3 of the South African Institute of Engineering Geologists (SAIEG) publication titled *Guidelines for Urban Engineering and Geological Investigations*.

In all ground conditions, foundations are designed by a professional engineer in accordance with the requirements of **SANS 10161** and constructed accordingly.

A damp-proof membrane which complies with the requirements of **SANS 952** or covered by a valid Agrément certificate must be laid on the compacted fill under the surface bed. Concrete used shall be in accordance with the relevant provisions of **SANS 10100-1** and **SANS 10100-2** (reinforced concrete). The underside of walls is treated with a bituminous emulsion sealant complying with SANS 317 for water tightness.

Roofs

Conventional timber truss or light-weight steel truss roof systems are fixed as per the NHBC manual, and/or rational design by competent professional engineer.

SANS 10161 *The design of foundations for buildings*

SANS 317 *Industrial bitumens*

SANS 952 *Polymer film for damp-proofing and waterproofing in buildings Part 2: Laminated (non-woven) products*

SANS 10100-1 *The structural use of concrete Part 1: Design*

SANS 10100-2 *The structural use of concrete Part 2: Materials and execution of work*

Walling

Walls are either cast in-situ or made of panels (2400 mm high and 820 mm wide).

Cast in-situ:

Wall shutter panels are placed onto foundation beams on a damp-proof membrane or Z-profile galvanised track, and are levelled and aligned using 80 mm x 80 mm x 4 mm tempered hardboard shims. The shutters are fixed according to **SANS 53670**.

SANS 53670 *The Execution of concrete structures*

The biomass concrete is poured into the shutter moulds and left to cure for a period of 28 days.

Panels:

Pre-manufactured wall panels make use of threaded vertical connectors cast into the bottom and top edge of wall panels, and bolted to the foundation anchor bars with 65 mm \varnothing x 15 mm thick washers and 40 mm long nuts tightened to a torque of 100 Nm.

A thick paste of non-shrink grout with a minimum compressive strength of 30 MPa at 28 days is packed into the horizontal joint and vertical cavity under the wall, and into the rebate between panel and surface bed. The outer face of the horizontal joint is sealed with a bituminous paint.

Two galvanized steel socket connectors cast into the side edges of each panel are bolted together. Bolts or studs are M8 of Grade 8.8 steel, tightened to a torque of 100 Nm. Where a bolt head bears against a concrete surface, a 25 mm \varnothing x 10 mm thick steel washer is provided.

A thick paste of non-shrink grout with a minimum compressive strength of 15 MPa is packed into the vertical joints between panels. A 20 mm x 20 mm wax-impregnated plastic foam sealant strip is compressed between the panels to prevent moisture penetration.

Internal partition walls are secured to the foundations in a similar manner.

External and internal partition walls do not have vertical anchor bars and are not necessarily anchored to the foundations. Pockets provided in the wall panels for access to bolts are grouted with a plaster mesh screwed to the galvanized U-plate and trimmed.

Floors

When floors are not tiled, the concrete surface bed will be steel floated to serve as the finished floor. Should the floors be tiled or any other floor covering installed, this will only be installed after the roof and ceilings have been installed and internal walls are plastered and painted or tiled.

Ring beam

A reinforced steel ring beam (to engineer's specifications) is placed at eaves level to all eaves and gable walls.

Window and door frames

Window and door frames are conventional or Agrément approved and are purposely made to suit the design of the building. Windows are fitted once the roof installation is complete and sealed with a suitable sealant.

Finishes

When services are installed, the finishing trade follows in the normal manner. Floor finishes are either smooth trowelled concrete or in accordance with the clients specification.

No surface finishing other than painting is required to the walls after erection. Generally, the walls would be plastered (where necessary) and given two coats of external acrylic emulsion paint, but other finishes specified by the client may be used.

Fittings

Light- and medium-weight fittings with a maximum weight of 23 kg are fixed to the wall with anchor bolts.

Heavy-weight fittings with a weight (>23 kg) must be floor-mounted.

NB. The fixing of heavy-weight fittings to the wall panels is not permitted.

Services

Ducting for services are fixed inside the shuttering but not deeper than 50 mm in the wall panel itself (dividing walls only).

Maintenance

All maintenance schedules and guidelines must be adhered to as set out in the Lighthouse Building System installation manual.

Walls in wet areas

In wet rooms (such as bathrooms, laundries, kitchens, shower cubicles, etc.) the following measures are adopted:

- plastic skirting approximately 100 mm high, fully bonded with a chloroprene-type contact adhesive used. Alternatively, standard timber skirting with a strip of bitumen polyurethane foam (Evabond or equivalent) compressed between it and the floor, is used
- all wall surfaces are given one coat of alkali resistant primer or an equivalent and painted with gloss paint (or similar), or tiled followed by one or two coats of an oil based glossed enamel paint
- wall surfaces in shower cubicles are first waterproofed in the conventional way and then tiled
- wall surfaces immediately above baths, sinks and wash-hand basins will be provided with a tiled splash-back
- silicone sealant is used to seal wall junctions that are exposed to water.

Technical drawings

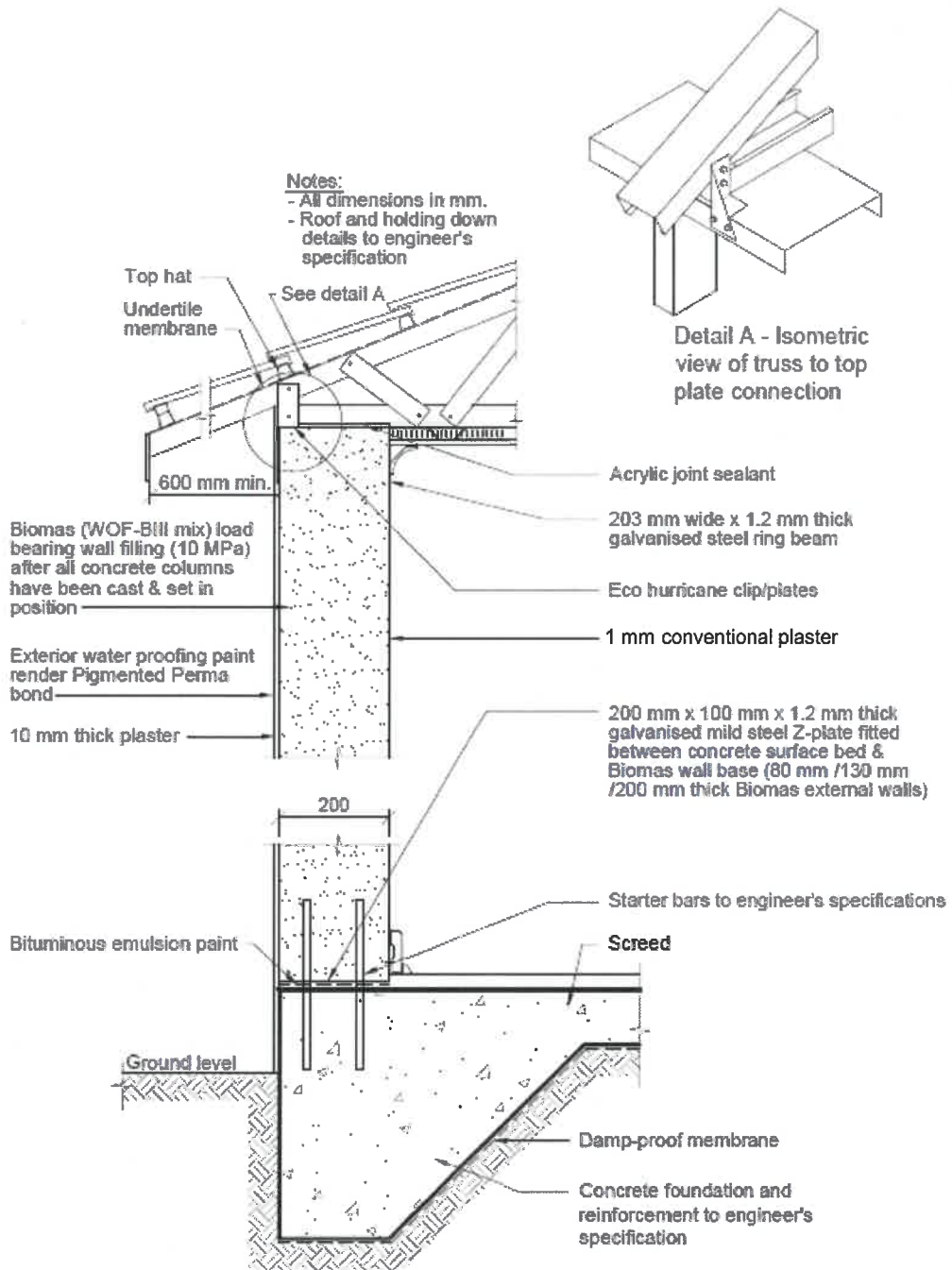


Figure 1: Vertical section through external in-situ wall

Note:

All dimensions in mm.

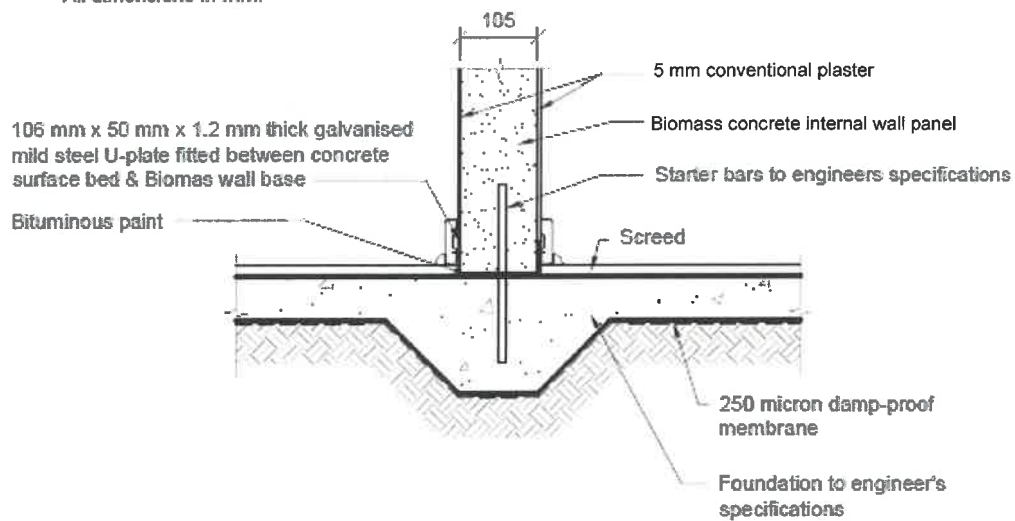


Figure 2: Vertical section through internal wall

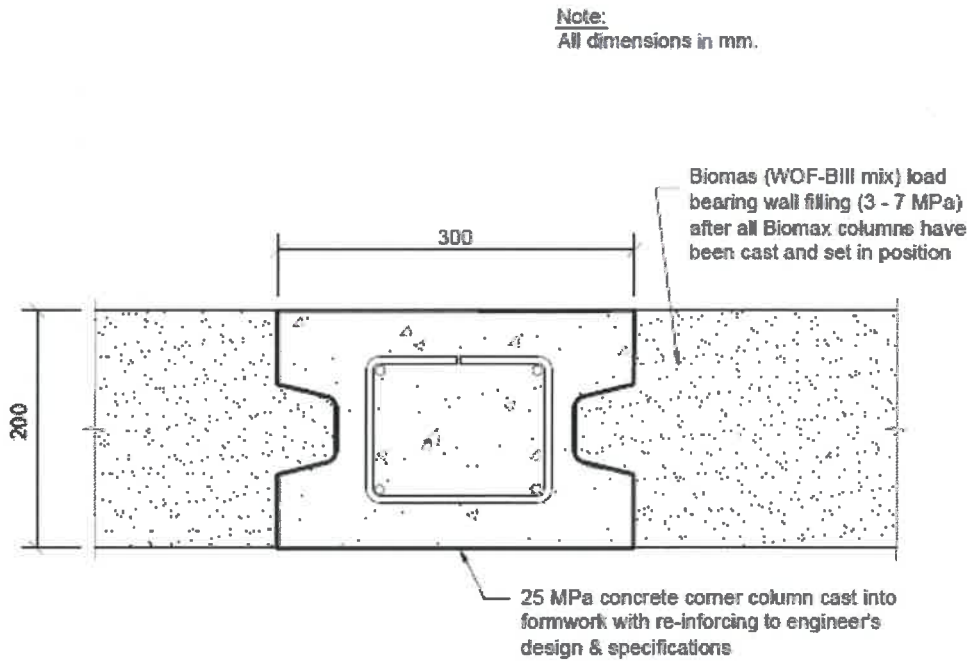


Figure 3: Horizontal section through external walls and columns

Note:
All dimensions in mm.

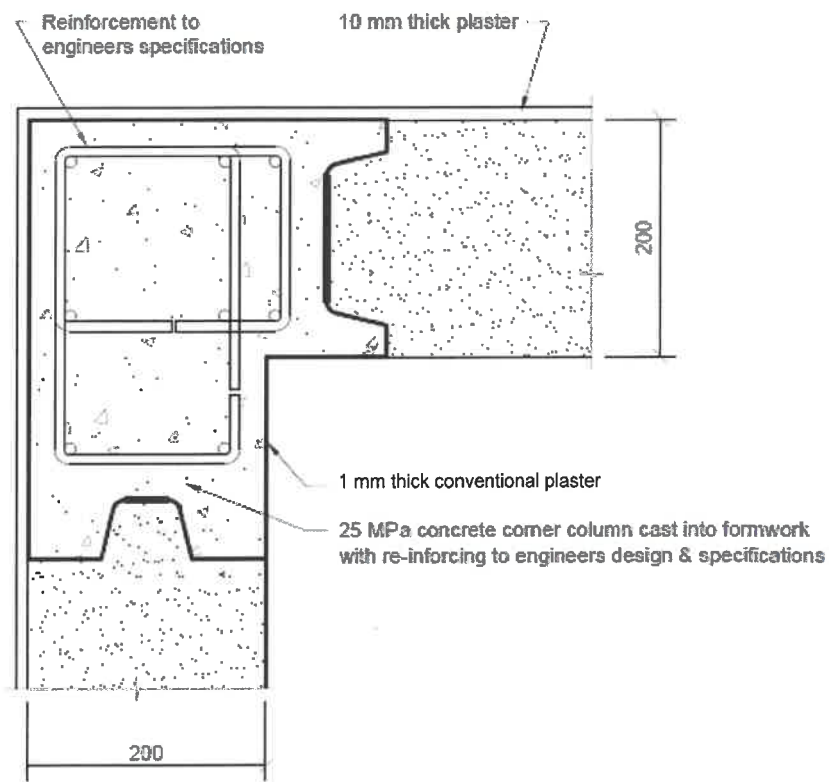


Figure 4: Horizontal section through corner junction

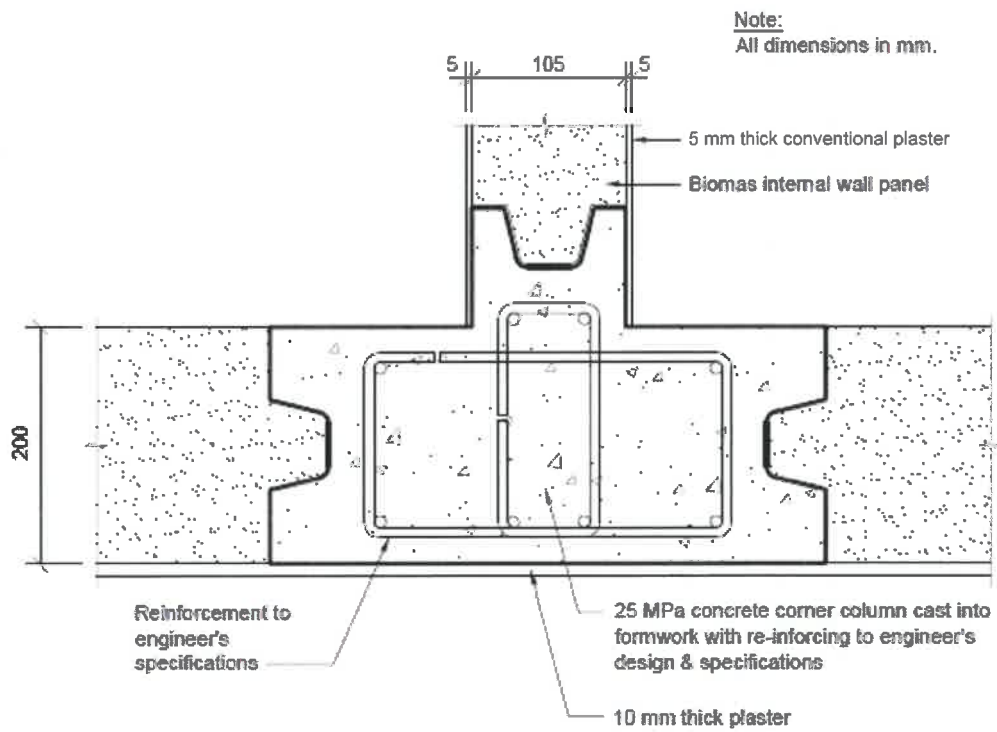


Figure 5: Horizontal section through wall T-junction detail

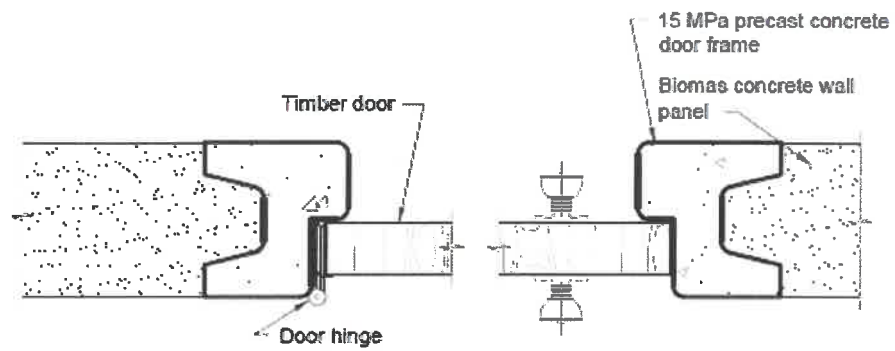
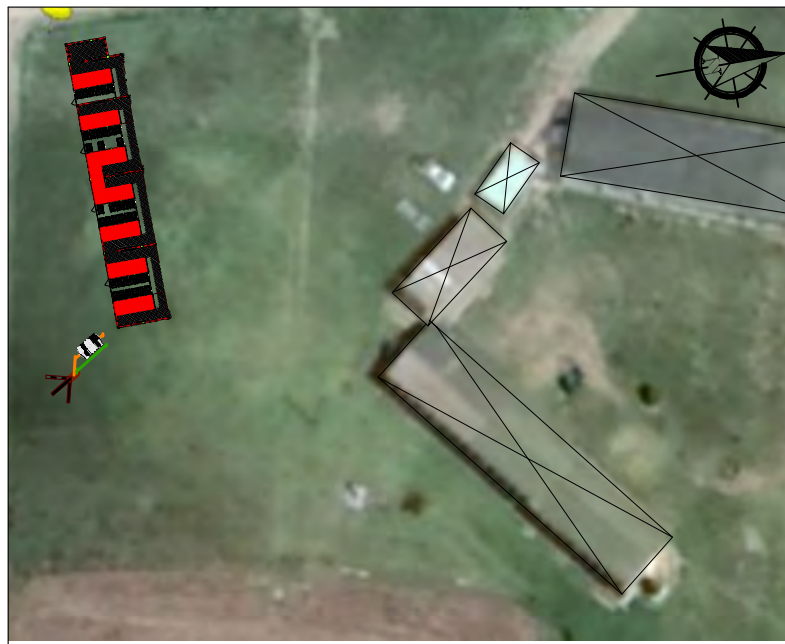
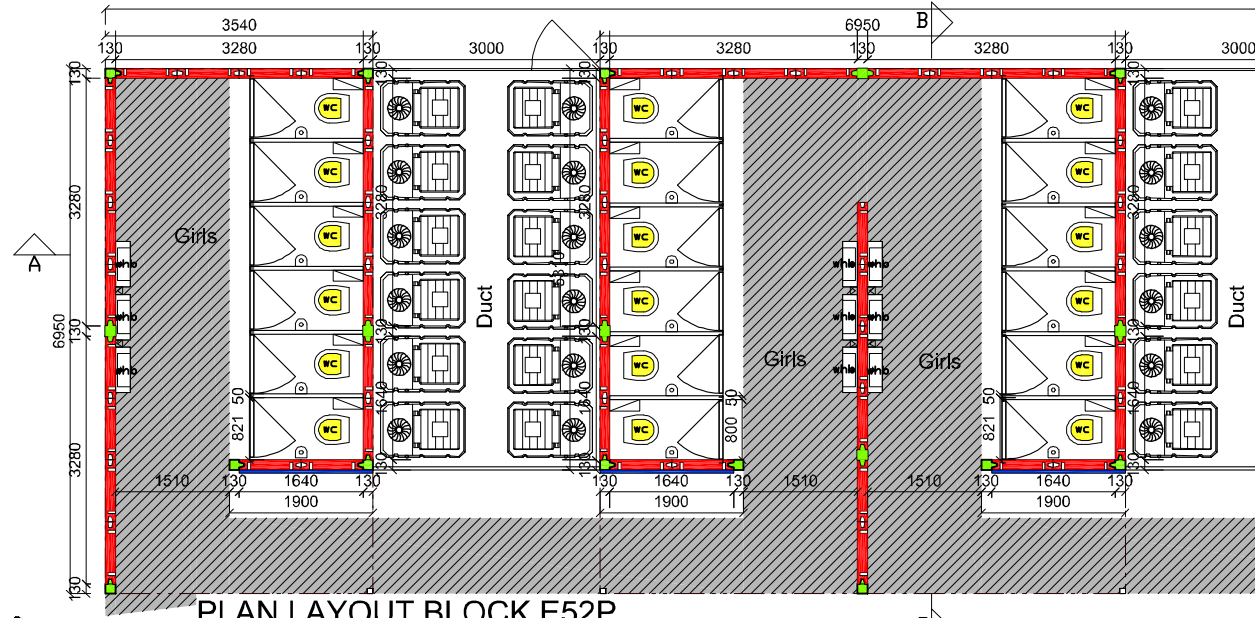
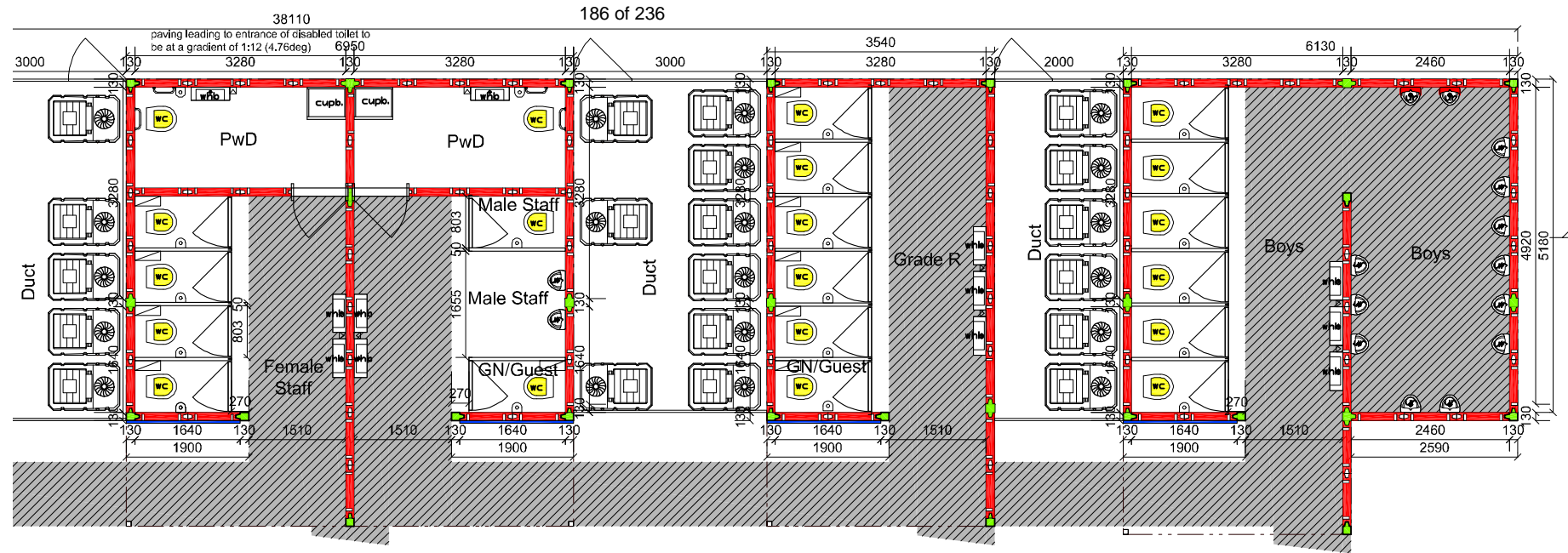


Figure 6: Horizontal section through concrete door frame

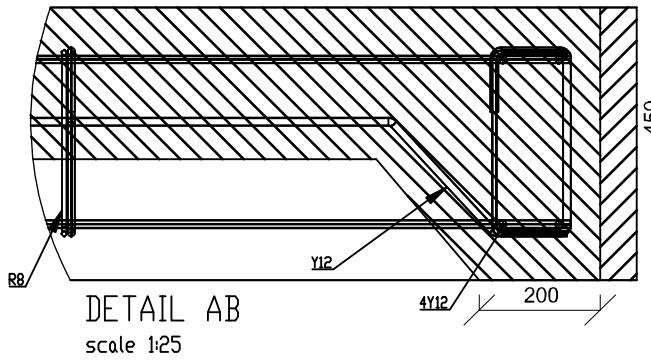
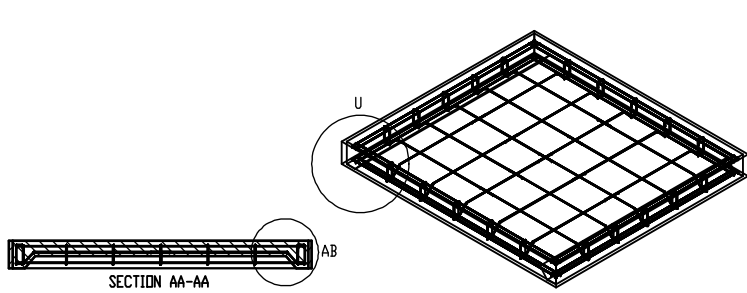
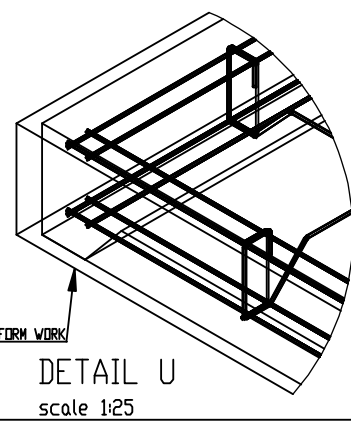
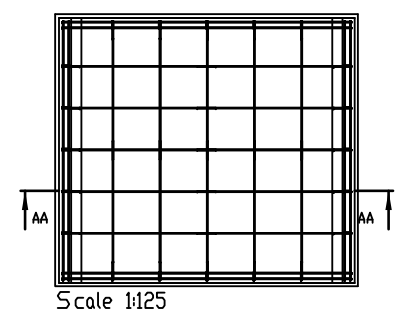
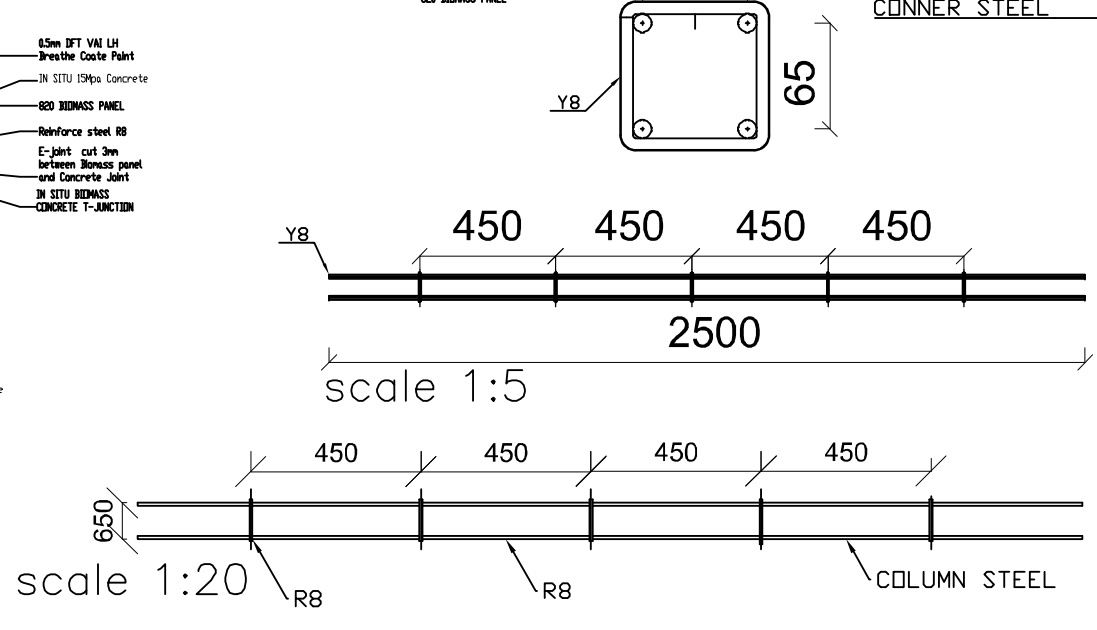
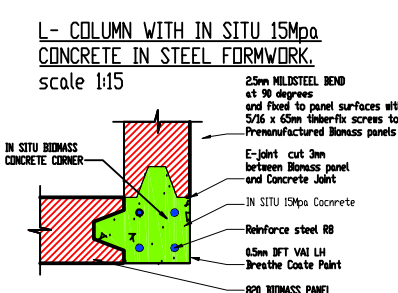
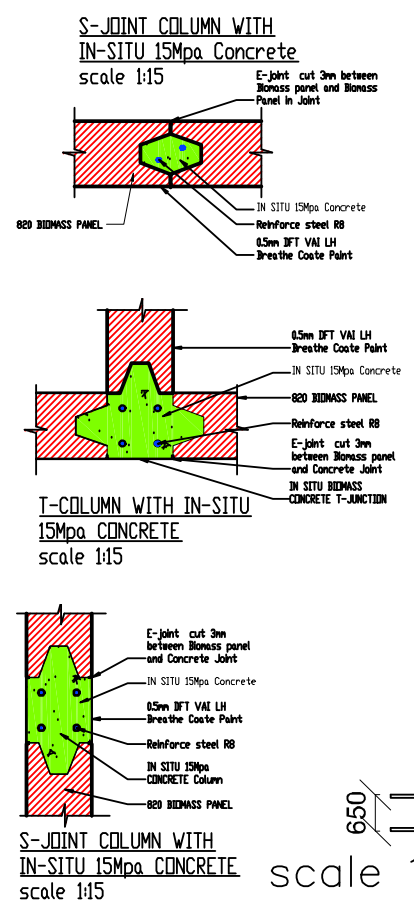


SITE PLAN
scale 1:1000

NOTE TO CONTRACTOR:
Final Position of Building &/or
Septic Tanks & Soak Away to be
determined on Site



PLAN LAYOUT BLOCK E52P
scale 1:100



All dimensions to be checked on site and on drawings, any discrepancies to be reported to the architect before work is put to hand. Only Round dimensions are to be given. All levels to be checked on site & on drawings & any discrepancies must be reported to the architect before any work is put to hand. All levels shown are finished floor levels. Soil and founding conditions must be checked and verified by a geotechnical engineer. All work must be completed in accordance with SANS 10400 and the current National Building Regulations. All structural work must be checked by a structural engineer & must be read in conjunction with the drawings.

DEW SYSTEM NOTE:
Final position of the DEW (Decentralized Ecological Waste Water Treatment) System to be confirmed on site by a Supervising Contractor from Isidima

DRAINAGE NOTES:
RE's to all changes in direction of soil pipes, IE's to all bends & junctions. Resoil traps to all waste fittings. Waste pipes are to be on freely accessible along entire length. Bends & junctions are not to be located under the building. Soil pipes located under building to be protected from load. All work to comply with Local Authority by-laws.

Pipe sizes: 160mm
110mm w/b 50mm
110mm slrk 50mm

COMPLIANCE NOTES - SANS 10400 - A:2010 Edition - refers:

FORMWORK: STRUCTURE AND CLADDING:
Where required verified by the appointed structural engineer, and constructed in accordance with SANS 16151 and SANS 10005, The Preservative treatment of steel shuttering and compliance to safety requirements.

PROTECTION:
prototype Biomass Insulated Concrete tested in accordance to SANS 101077-2 Fire testing of materials and complies to Agreema 2018-578 components and elements used in Buildings - Part 2. The resistance test for wall elements comply to FR180min and roof slab elements to 80min. Fire protection in accordance with SANS 10400 Part 1: Fire protection and any fire equipment installation and signage in accordance with SANS 10400 Part Installations and Duty 10 based on Rational Fire S. Design.

STRUCTURAL DESIGN:
structure in accordance with SANS 10400 Part B, structural. Subject to the design of the appointed structural engineer.

DIMENSIONS:
accordance with SANS 10400 Part C, Dimensions.

SAFETY:
All site safety requirements remains the responsibility of the contractor and H&S guidelines issued by the representative of the client WOF must be adhered to and ensure safety around schools and school ablations. Balustrades in accordance with SANS 10400 Part D, public

OPERATIONS:
accordance with Agreema Approved LIGHT HOUSE construction procedure SANS 10400 Part F, site operations

FOUNDATIONS:
Foundations to be in accordance with SANS 10400 foundations and strictly to engineers' designs & specs.
Floors to be in accordance with SANS 10400 Part - Floors.
Walls to be in accordance with SANS 10400 Part - Walls.
Material & structure to be in accordance with SANS Part - Roofs and design subject to verification by structural engineer.

STAIRCASE:
staircase to be constructed in accordance with SANS Part M, stairways.

DOORS & WINDOWS:
Doors & windows to be in accordance with SANS 10400 Part N, and Part O Lighting and ventilation.

DRAINAGE AND STORMWATER DISPOSAL:
constructed in accordance with Part SANS 10400. Drainage and - accordance with Part - SANS 10400. Stormwater disposal.

204 AND SANS 10400XA:
Compliant - full report available on request.

General description:
Light House Building system 2018-578 is designed for the erection of single-story structures. The system comprises of walls made from clipped biomass concrete mixture. The biomass concrete mixture consists of binder cement and additives, aggregate and wood chips.
The Light House system for School ablations is erected on a conventional concrete raft foundation that is designed by an approved competent person.
Rafts can either be constructed from in situ and precast concrete material or timber trusses, with light- or heavy weight roof cladding.
Walls are either cast in situ, or precast of panels (2400mm high and 820mm wide). The density of the cured biomass concrete mixture is 1100 and 1300kg/m3.
Walls are constructed in thickness ranging from 50mm for internal toilet partitioning walls to 130mm external walls.
External walls must be painted with a 1mm thick VAI-Breathcoat cement base plaster render.

NES CONSULT & ASSOCIATES
NATURAL ENGINEERING SOLUTIONS
PROFESSIONAL ENGINEERS
REG. NO. 10101
REG. NO. 10101
REG. NO. 10101
REG. NO. 10101

Light House School Ablution Project 18023
A program of Dept of Environmental Affairs in Partnership with WRC & DBE

INTELLECTUAL PROPERTY RIGHTS:
- The Light House School Ablution design by DEA
- Intellectual property right is vested in DEA
- Working On Fire through VAI is the implementing agent
- All contractors, service providers & appointments will require NDA & warrant agreement for use of this Agreema 2018/578 approved process of construction
- WOF/VAI will have the right to withdraw any process

Design: CA Gaido CAD20091
NES Arch. A.J. Orlise BT0478
ES Sr. Eng. W. ESTERHUIZEN
NES Prof. Eng. D. DOOSTHUIZEN

PROJECT: NEW ABLUTION BLOCK DUDUMAYO SENIOR SECONDARY MTHATHA EASTERN CAPE

CLIENT: WORKING ON FIRE (PTY) LTD.

Client Signature

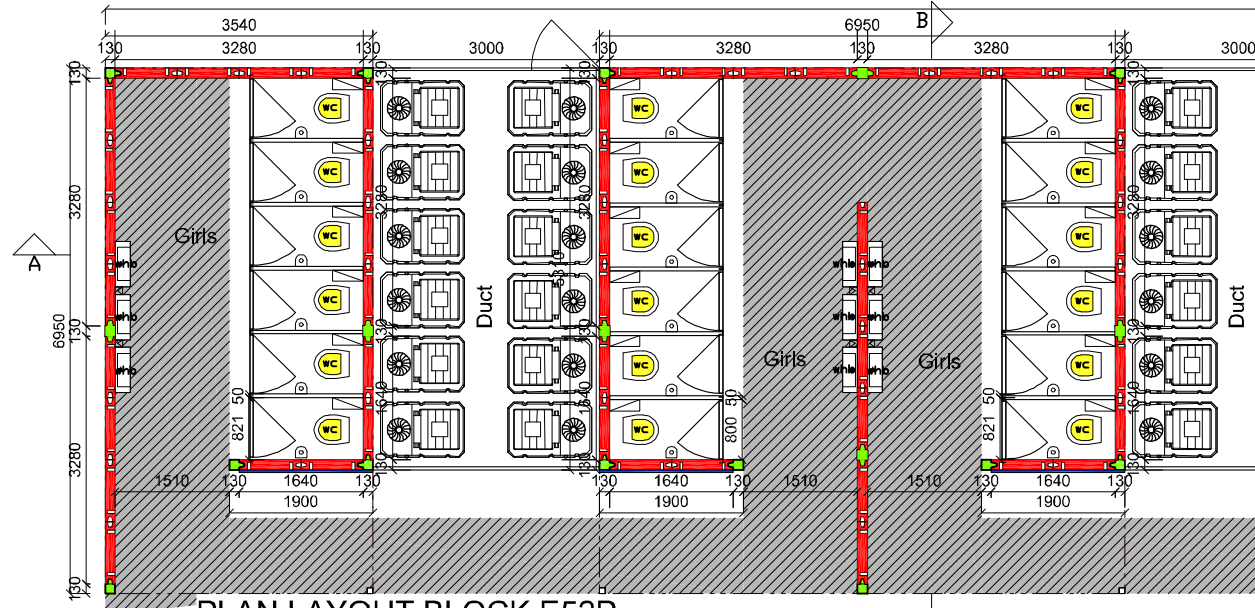
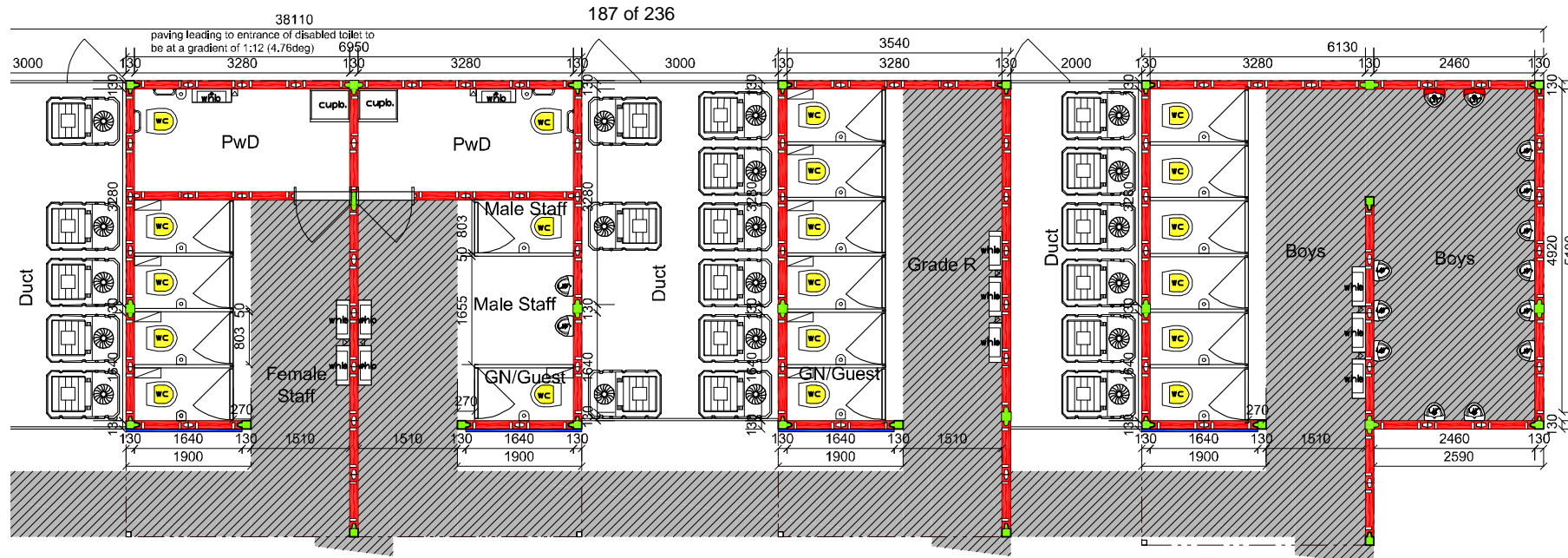
DATE: Sept, 2019 SCALE: see plan
PROJECT No. 18023-EC/E52P-D/45 TITLE: see plan
SHEET No. 1 of 5 REVISION No. DRAFT 02

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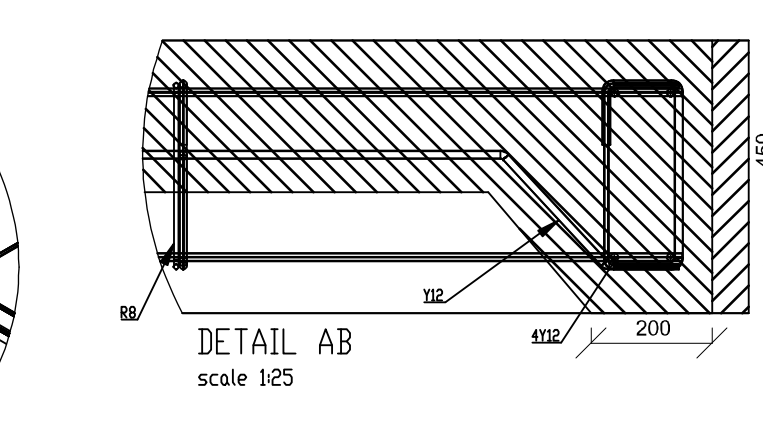
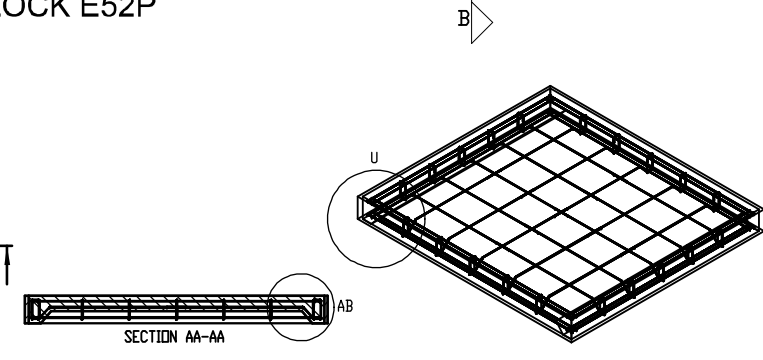
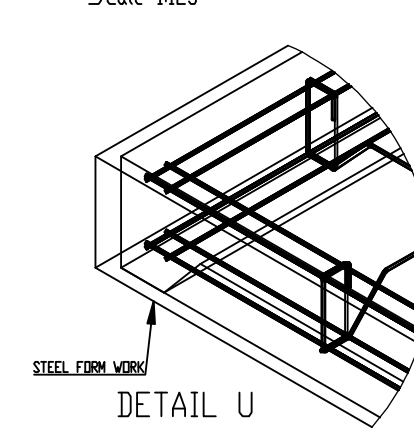
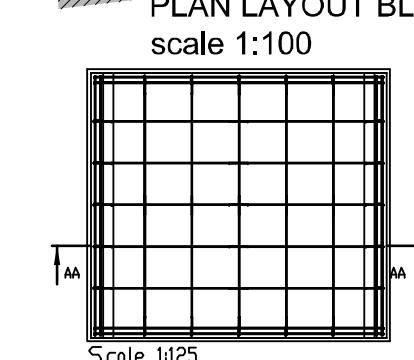
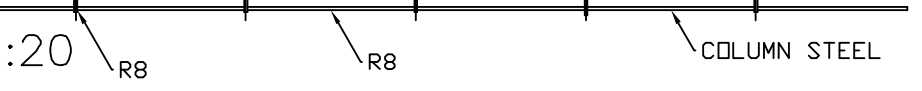
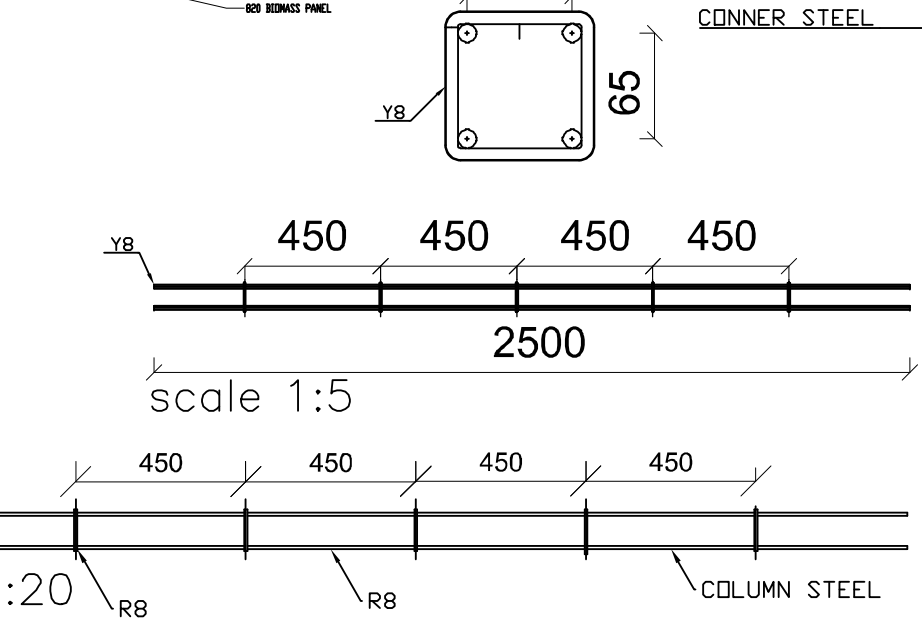
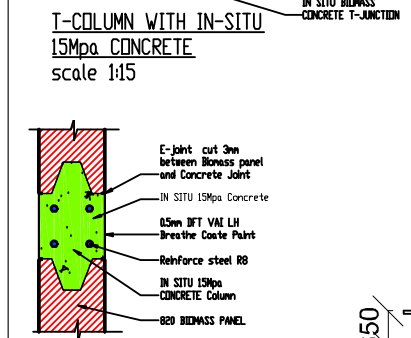
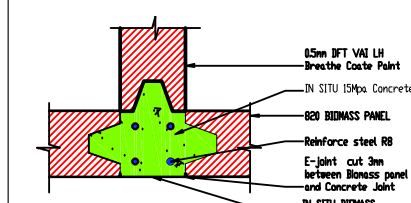
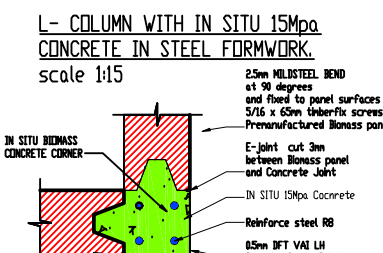
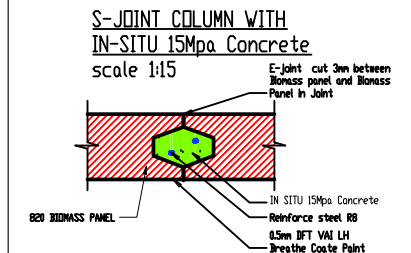


SITE PLAN
scale 1:1000

NOTE TO CONTRACTOR:
Final Position of Building &/or Septic Tanks
& Soak Away to be determined on Site



PLAN LAYOUT BLOCK E52P
scale 1:100



All dimensions to be checked on site and on drawings, any discrepancies to be reported to the architect before work is put to hand. Only figured dimensions are to be used. All levels to be checked on site & on drawings & any discrepancies must be reported to the architect before any work is put to hand. All levels shown are finished floor levels. Soil and founding conditions must be checked and verified by a geotechnical engineer. All work must be completed in accordance with SANS 10400 and the current National Building Regulations. All structural work must be checked by a structural engineer & must be read in conjunction with their drawings.

DEW SYSTEM NOTE:
Final position of the DEW (Decentralized Ecological Waste Water Treatment) System to be confirmed on site by a Supervising Contractor from Isiduna

DRAINAGE NOTES:
RE's to all changes in direction of soil pipes, IE's to all bends & junctions. Reseal traps to all waste fittings. Waste pipes are to be entirely accessible along their length. Bends & junctions are not to be located under the building. Soil pipes located under building to be protected from load. All work to comply with Local Authority by-laws.

Pipe sizes: 160mm
110mm w/b 50mm
110mm slk 50mm

COMPLIANCE NOTES - SANS 10400 - A2012 Edition - refers:

FORMWORK: STRUCTURE AND CLADDING:
Where required verified by the appointed structural engineer, and constructed in accordance with SANS 18151 and SANS 10005, The Preservative treatment of steel shuttering and compliance to safety requirements.

PROTECTION:
prototype Biomass Insulated Concrete tested in accordance to SANS 101077-2 Fire testing of materials and complies to Agragma 2018-578, components and elements used in buildings - Part 2. Fire resistance test for wall elements comply to FR180min and roof slab elements to 60min. Fire protection in accordance with SANS 10400 Part 1: Fire protection and any fire equipment installation and signage in accordance with SANS 10400 Part 1: Installations and Duty 10 based on National Fire S. Design.

STRUCTURAL DESIGN:
structure in accordance with SANS 10400 Part B, structural. Subject to the design of the appointed structural engineer.

DIMENSIONS:
accordance with SANS 10400 Part C, Dimensions.

SAFETY:
All site safety requirements remains the responsibility of the contractor and H&S guidelines issued by the representative of the client/WOF must be adhered to and ensure safety around schools and school ablations. Balustrades in accordance with SANS 10400 Part D, public.

OPERATIONS:
accordance with Agrima Approved LIGHT HOUSE Construction procedure SANS 10400 Part F, site operations

FOUNDATIONS:
Foundations to be in accordance with SANS 10400 foundations and strictly to engineers' designs & specs.
Floors to be in accordance with SANS 10400 Part - Floors.
Walls to be in accordance with SANS 10400 Part - Walls.
Material & structure to be in accordance with SANS Part - Roofs and design subject to verification by structural engineer.

STAIRCASE:
staircase to be constructed in accordance with SANS Part M, stairways.

DOORS & WINDOWS:
Doors & windows to be in accordance with SANS 10400 Part N, and Part O lighting and ventilation.

DRAINAGE AND STORMWATER DISPOSAL:
constructed in accordance with Part SANS 10400. Drainage and - accordance with Part - SANS 10400. Stormwater disposal.

204 AND SANS 10400XA:
Compliant - full report available on request.

General description:
Light House Building system 2018-578 is designed for the erection of single-story structures. The system consists of walls made from chipbed biomass concrete mixture. The biomass concrete mixture consists of binder cement and additives, aggregate and wood chips.
The Light House system for School ablations is erected on a conventional concrete raft foundation that is designed by an approved competent person.
Roofs can either be constructed from in situ and precast concrete material or timber trusses, with light- or heavy weight roof cladding.

Walls are either cast in situ, or premade of panels (2400mm high and 820mm wide). The density of the cured biomass concrete mixture is 1100 and 1300kg/m3.
Walls are constructed in thickness ranging from 50mm for internal toilet partitioning walls to 130mm external walls.
External walls must be painted with a 1mm thick VAI-Breathcoat cement base plaster render.

NES CONSULT & ASSOCIATES
NATURAL ENGINEERING SOLUTIONS
PROFESSIONAL ENGINEERS
Light House School Ablution Project 18023
A program of Dept of Environmental Affairs in Partnership with WRC & DBE
Intellectual Property Rights:
- The Light House School Ablution design by DEA
- Intellectual property rights is vested in DEA
- Working On Fire through VAI is the implementing agent
- All contractors, service providers & appointments will require NDA & warrant agreement for use of this Agrima 2018/578 approved process of construction
- WOF/VAI will have the right to withdraw any process

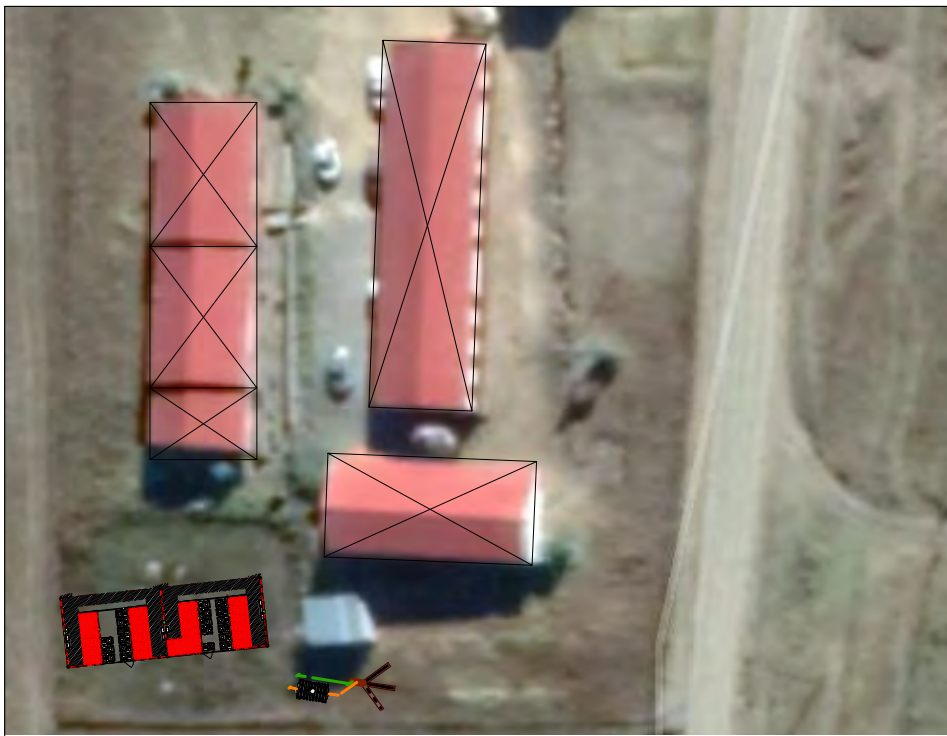
Design: CA Gaidler
NES Arch. A.J. Olofofe
ES Str. Eng. W. ESTERHUIZEN
NES Prof. Eng. D. GOSTHUIZEN

PROJECT: NEW ABLUTION BLOCK MQANDULI VILLAGE JUNIOR SECONDARY MTHATHA EASTERN CAPE
CLIENT: WORKING ON FIRE (PTY) LTD.
Client Signature

DATE: Sept, 2019
PROJECT No. 18023-EC/E52P-D/46
SHEET No. 1 of 5

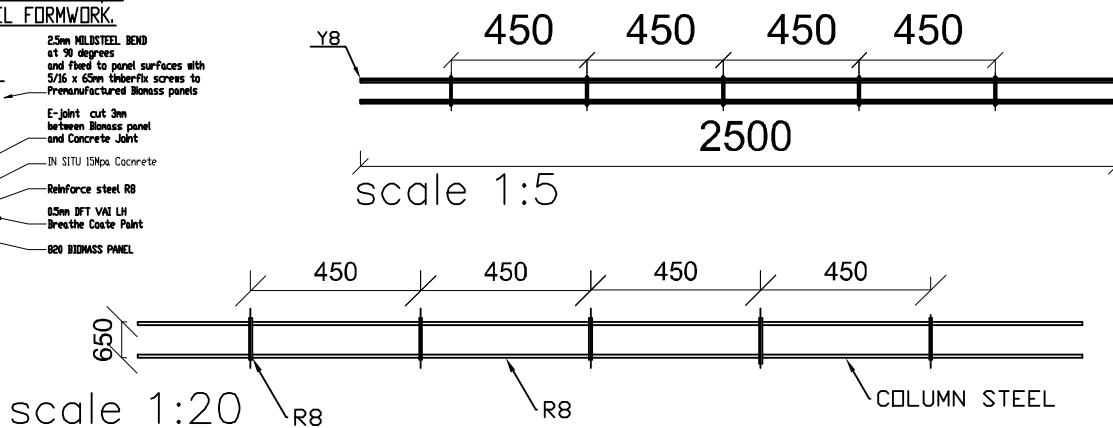
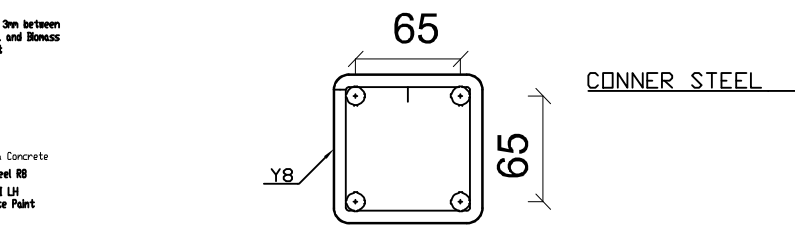
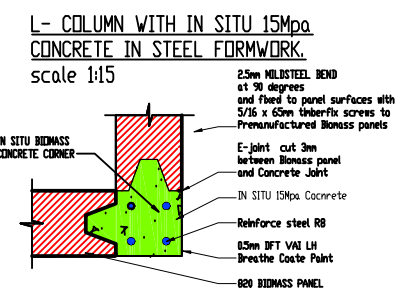
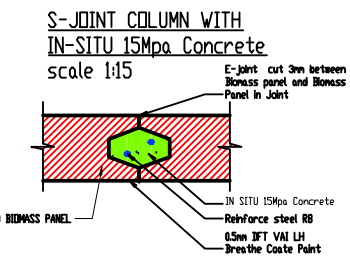
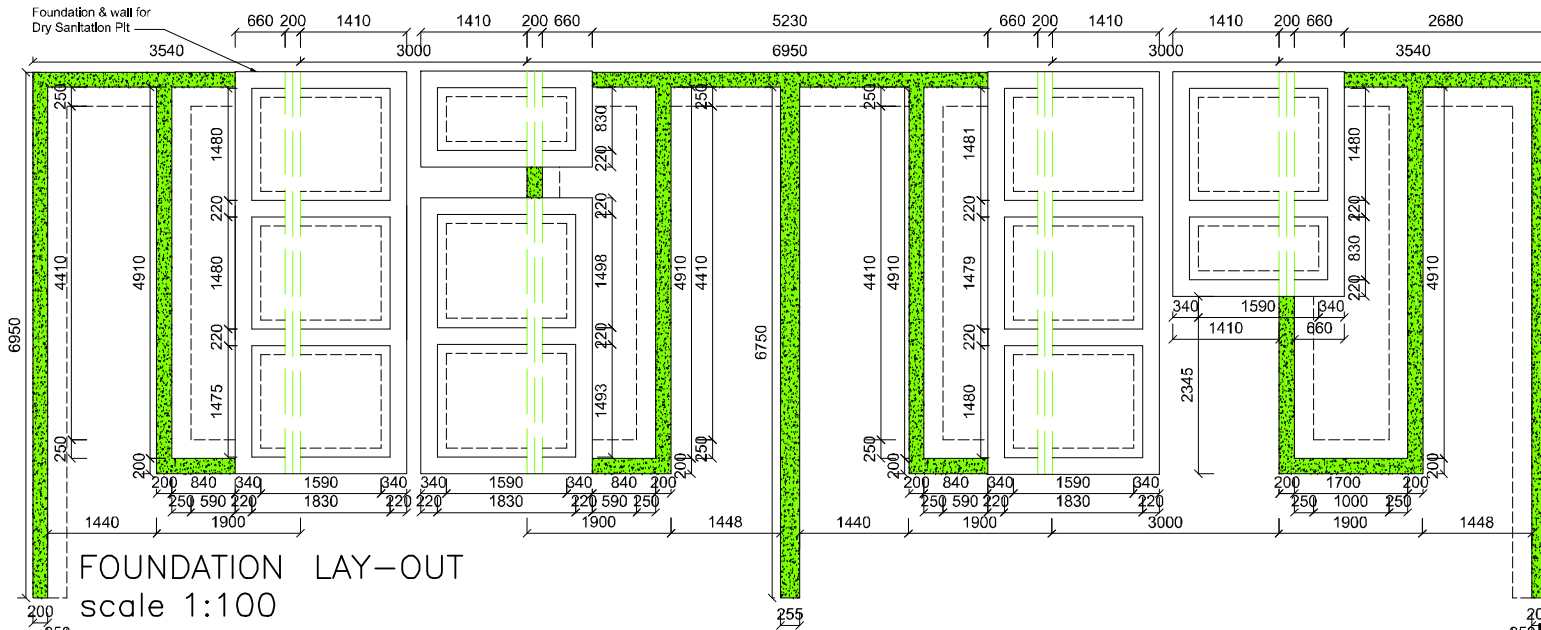
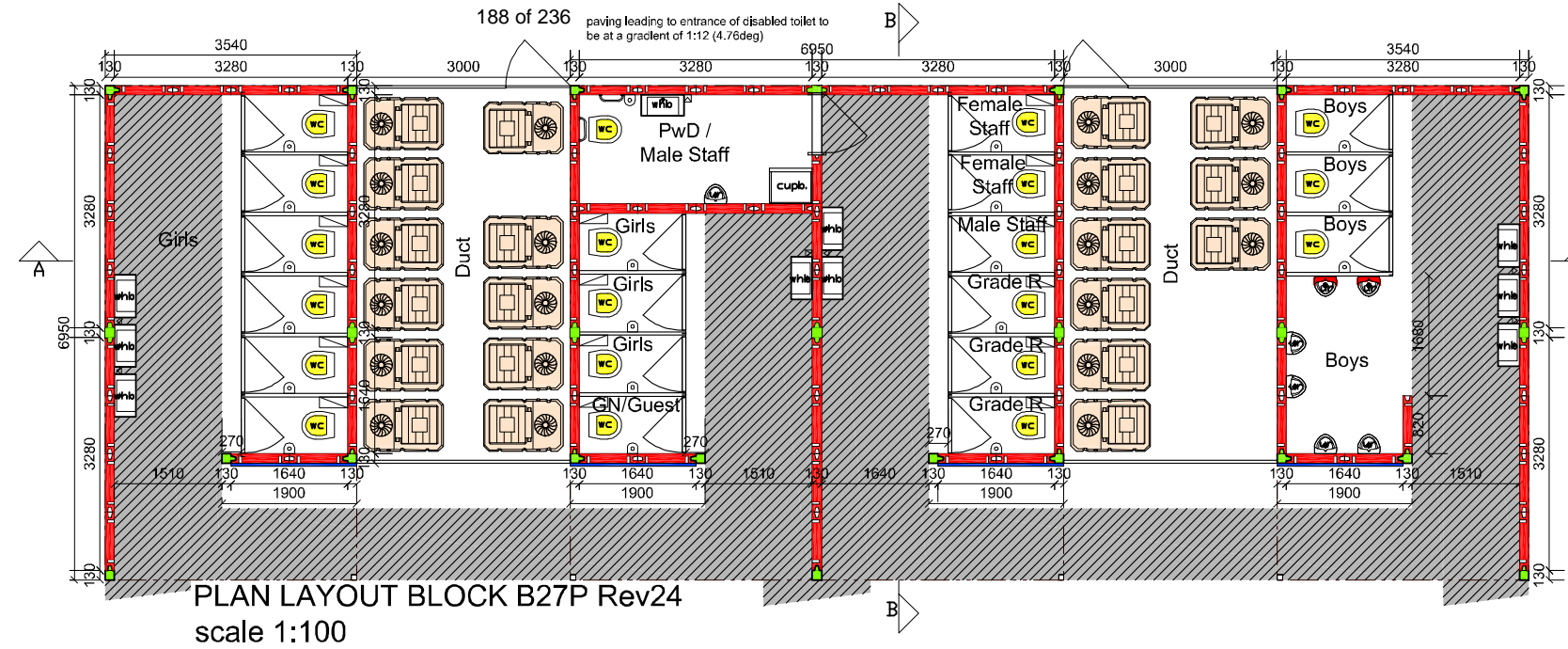
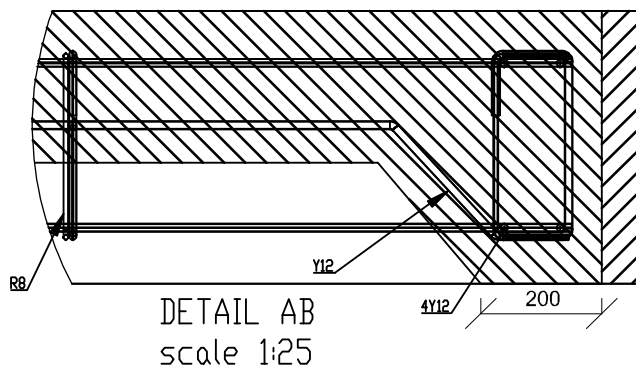
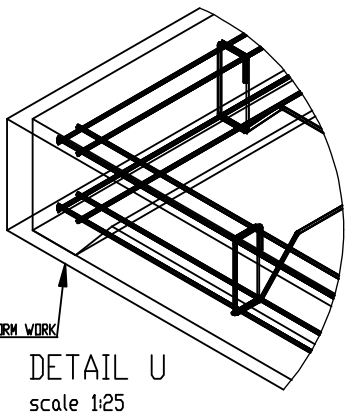
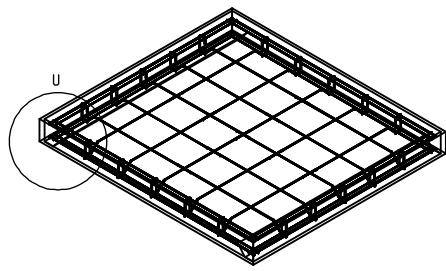
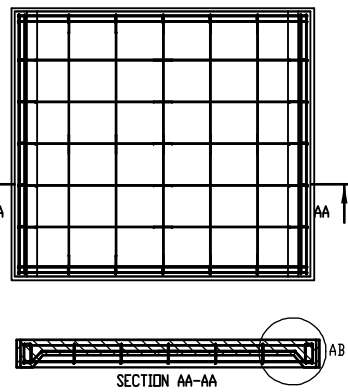
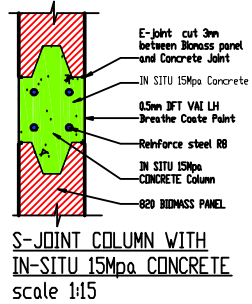
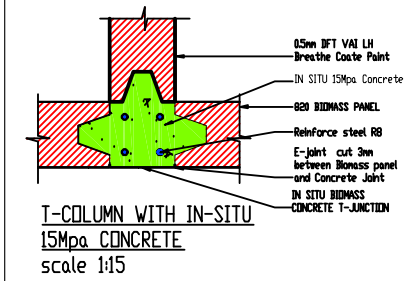
SCALE: see plan
TITLE: see plan
REVISION No. DRAFT 02

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SITE PLAN
scale 1:750

NOTE TO CONTRACTOR:
Final Position of Building &/or Septic Tanks
& Soak Away to be determined on Site



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COMPLIANCE NOTES - SANS 10400 - A:2010 Edition - refers:

FORMWORK: STRUCTURE AND CLADDING:
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PROTECTION:
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STRUCTURAL DESIGN:
structure in accordance with SANS 10400 Part B, structural. Subject to the design of the appointed structural engineer.

DIMENSIONS:
accordance with SANS 10400 Part C, Dimensions.

SAFETY:
All site safety requirements remains the responsibility of the contractor and HAS guidelines issued by the representative of the client WOF must be adhered to and ensure safety around schools and school activities. Balustrades in accordance with SANS 10400 Part D, public.

OPERATIONS:
in accordance with Agrilima Approved LIGHT HOUSE Construction procedure SANS 10400 Part F, site operations

FOUNDATIONS:
Foundations to be in accordance with SANS 10400 foundations and strictly to engineers' designs & specs.
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General description:
Light House Building system 2018-578 is designed for the erection of single-story structures. The system comprises of walls made from clipped biomass concrete masonry. The biomass concrete masonry consists of binder cement and additives, aggregate and wood chips.
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Roofs can either be constructed from in situ and precast concrete material or timber trusses, with light or heavy weight roof cladding.
Walls are either cast in situ, or pre-made of panels (2400mm high and 820mm wide). The density of the cured biomass concrete masonry is 1100 and 1300kg/m³.
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NES CONSULT & ASSOCIATES
NATURAL ENGINEERING SOLUTIONS
PROFESSIONAL ENGINEERS
REGISTERED IN SOUTH AFRICA
MEMBER OF THE ENGINEERING BOARD OF SOUTH AFRICA

Light House School Ablution Project 18023
A program of Dept of Environmental Affairs in Partnership with WRC & DBE

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PROJECT: NEW ABLUTION BLOCK
GWEBINKUNDLA JUNIOR SECONDARY
MTHATHA
EASTERN CAPE

CLIENT:
WORKING ON FIRE (PTY) LTD.

Client Signature

DATE: Sept, 2019 **SCALE:** see plan
PROJECT No. 18023-EC/B27P-043 **TITLE:** see plan
SHEET No. 1 of 1 **REVISION No. DRAFT 02**

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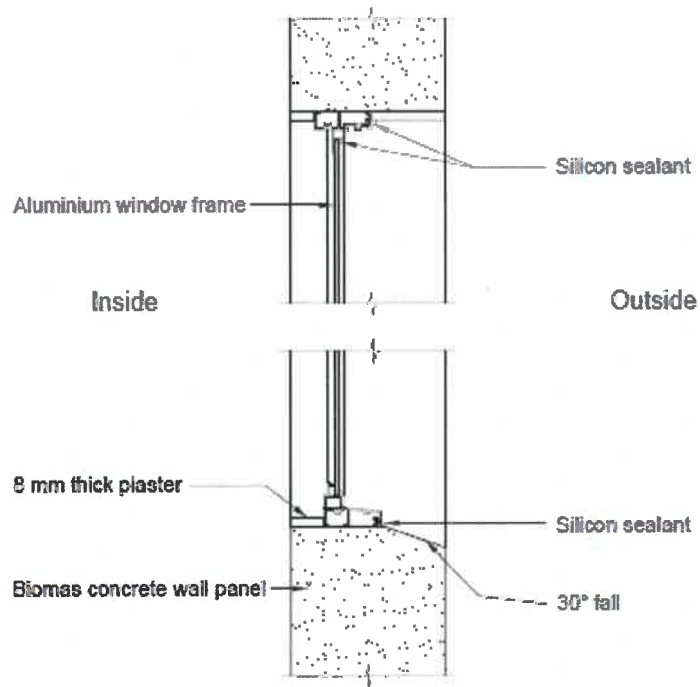
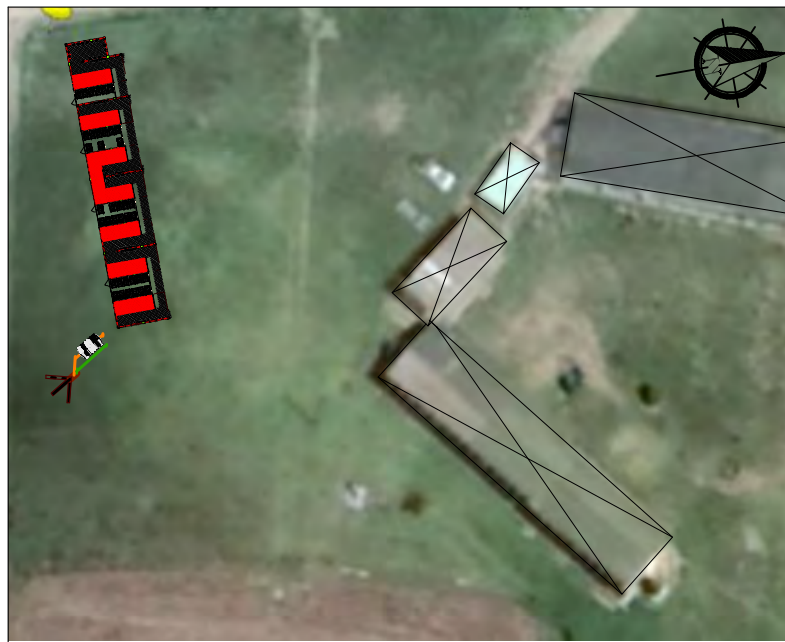


Figure 7: Vertical section through aluminum window frame

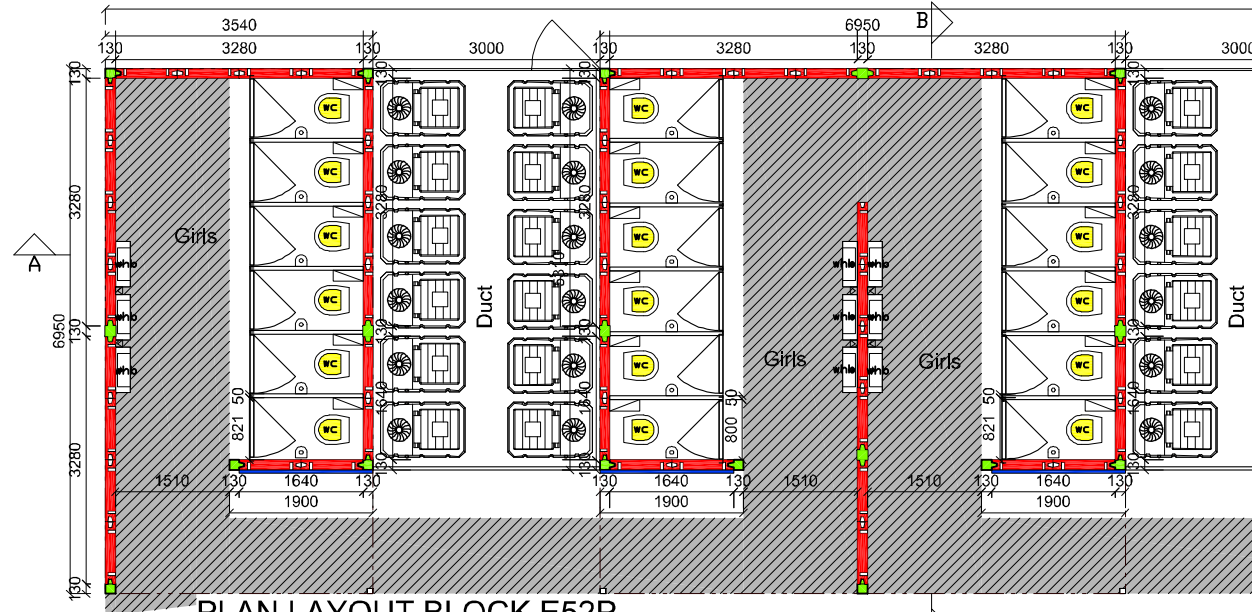
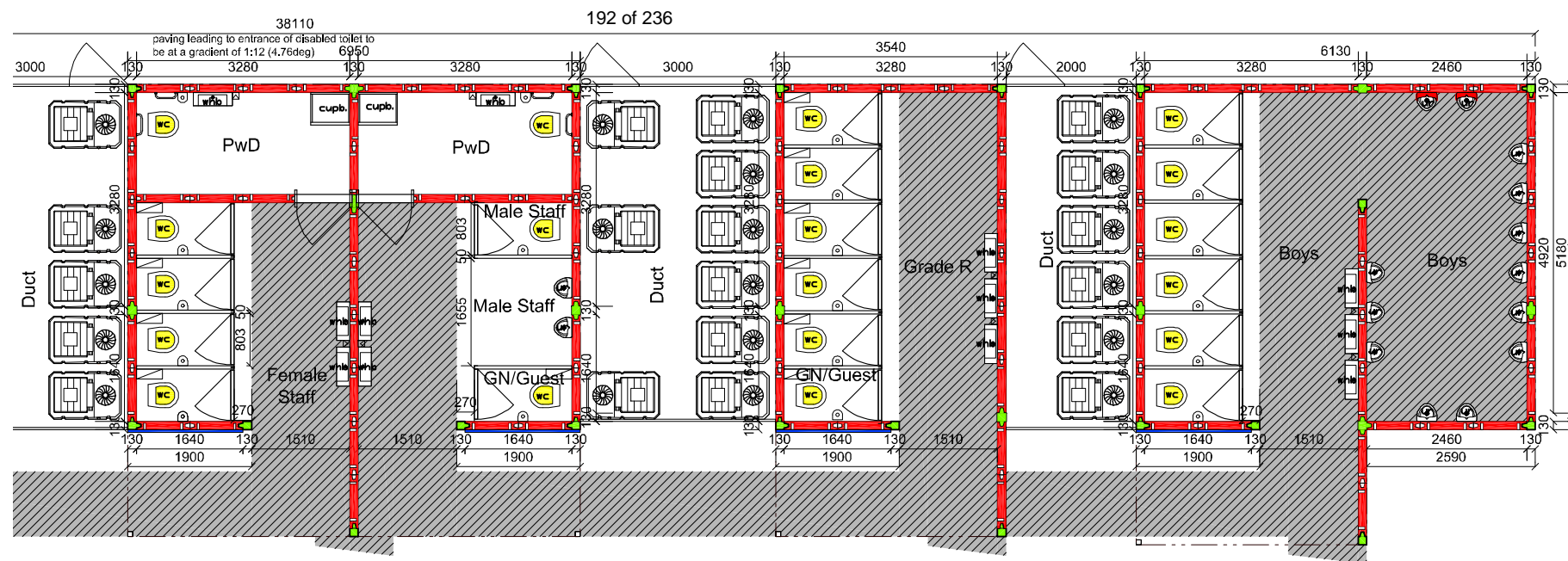
EASTERN SCHOOLS 58 CLUSTER ALLOCATIONS

Grouping	School name	Latitude	Longitude	Clusters	Status	Area
1	Belfort Junior Primary School	-30.18801	28.72492	1	Visited	Maluti
2	Emazizini Senior Primary School	-30.19198	28.85276	1	Visited	Maluti
3	Gudlintaba Junior Secondary	-30.21462	28.89342	1	Visited	Maluti
4	Moliko Junior Primary School	-30.26823	28.78105	1	Visited	Maluti
5	Emitshatshaneni Primary School	-30.48415	28.59825	1	Visited	Maluti
6	Mandileni Primary School	-30.72506	28.80197	1	Visited	Maluti
7	Tsekong Primary School	-30.6857	28.4858	1	Visited	Maluti
8	Tshisa Primary School	-30.48201	28.64288	1	Visited	Maluti
9	Izwelethu Senior Primary School	-30.95768	30.0321	2	Visited	Mbizana
10	Lukholo Junior Secondary School	-30.96451	29.97045	2	Visited	Mbizana
11	Monti Junior Secondary School	-30.95263	29.86632	2	Visited	Mbizana
12	Ncenjane Junior Primary School	-30.87649	30.04037	2	Visited	Mbizana
13	Dlungwana Senior Primary	-30.79268	29.81878	2	Visited	Mbizana
14	Emdeni junior Secondary	-30.84917	29.73944	2	Visited	Mbizana
15	Gecelo Junior Primary School	-30.82216	29.84686	2	Visited	Mbizana
16	Majazi Junior Secondary School	-30.87121	29.805	2	Visited	Mbizana
17	Marelane Senior Secondary	-30.80947	29.7189	2	Visited	Mbizana
18	Mzamba Senior Secondary	-30.846	29.77555	3	Visited	Mfudsweni
19	Dlepu Junior Primary School	-30.83939	29.53747	3	Visited	Mfudsweni
20	Emgodini Junior Secondary School	-31.01408	29.60921	3	Visited	Mfudsweni
21	Mapakati Senior Primary School	-30.92602	29.60998	3	Visited	Mfudsweni
22	Nyanda Diko Primary School	-31.05046	29.4166	3	Visited	Mfudsweni
23	Tonti Junior Secondary School	-30.8675	29.43912	3	Visited	Mfudsweni
24	Hlankomo Junior Secondary	-30.90905	29.36236	4	Visited	Tabankulu
25	Mhlonyaneni Higher Primary	-30.98689	29.20504	4	Visited	Tabankulu
26	Nkosibomvu Primary School	-30.88665	29.26732	4	Visited	Tabankulu
27	Zweledinga Primary School	-30.85112	29.26497	4	Visited	Tabankulu
28	Celinkungu Primary School	-30.64187	29.2715	5	Visited	Mt Ayliff
29	Mafadobo Senior Primary School	-30.67687	29.6713	5	Visited	Mt Ayliff
30	Marwaqa Junior Secondary	-30.73923	29.33377	5	Visited	Mt Ayliff
31	Mjikweni Primary School	-30.64777	29.52361	5	Visited	Mt Ayliff
32	Myengwa Primary School	-30.8039	29.42363	5	Visited	Mt Ayliff
33	Nqabeni Primary School	-30.66157	29.36403	5	Visited	Mt Ayliff
34	Ntlavini Primary School	-30.72445	29.40085	5	Visited	Mt Ayliff
35	Tela Primary School	-30.75898	29.45613	5	Visited	Mt Ayliff
36	Valipatwa Junior Primary School	-30.69818	29.47483	5	Visited	Mt Ayliff
37	Dabula Primary School	-30.862	29.0072	6	Visited	Dadane
38	Elliot Ndabankulu Makaula Primary School	-30.9218	28.9748	6	Visited	Dadane
39	Lufafa Primary School	-30.87137	29.11762	6	Visited	Dadane
40	Lwandlana Primary School	-31.0413332	28.8859556	6	Visited	Dadane
41	Mpindweni Junior Secondary	-30.89091	29.09982	6	Visited	Dadane
42	Mtshazi Primary School	-30.9384	29.0176	6	Visited	Dadane
43	Mzinto Primary School	-30.83612	29.10118	6	Visited	Dadane
44	Rode Priamry School	-30.82842	29.14015	6	Visited	Dadane
45	DUDUMAYO SENIOR SECONDARY SCHOC	-31.9274068	29.0185569	7	Visited	Mthatha
46	MQANDULI VILLAGE JUNIOR SECONDARY	-31.8505575	28.7272647	7	Visited	Mthatha
47	PANGINDLELA JUNIOR SECONDARY SCHC	-31.8280398	28.752555	7	Visited	Mthatha
48	GWEBINKUNDLA JUNIOR SECONDARY SC	-31.82248	28.7272113	7	Visited	Mthatha
49	FUTYE JUNIOR SECONDARY SCHOOL	-32.0048628	28.6480427	7	Visited	Mthatha
50	MAXWELE SENIOR SECONDARY SCHOOL	-31.6896379	28.6965555	7	Visited	Mthatha
51	SPRINGVALE PRIMARY JUNIOR SCHOOL	-31.6818044	28.682973	7	Visited	Mthatha
52	NTLUKUHLA JUNIOR SECONDARY SCHOC	-31.2470431	26.9657961	7	Visited	Mthatha
53	VULINDLELA SENIOR PRIMARY SCHOOL	-31.6333614	29.3684263	7	Visited	Mthatha
54	VULINKETE SENIOR PRIMARY SCHOOL	-31.9078088	28.5946013	8	Visited	Ndyebo
55	Mganu Primary School	-30.78598	28.93266	8	Visited	Ndyebo
56	Mhluta Junior Secondary School	-30.66617	28.97367	8	Visited	Ndyebo
57	Mpungutyana Junior Secondary School	-30.69773	28.97076	8	Visited	Ndyebo
58	Nguse Junior Secondary School	-30.69961	29.04059	8	Visited	Ndyebo



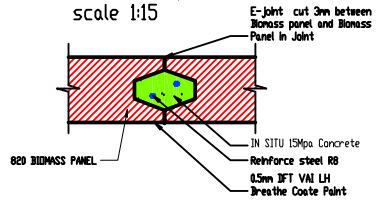
SITE PLAN
scale 1:1000

NOTE TO CONTRACTOR:
Final Position of Building &/or
Septic Tanks & Soak Away to be
determined on Site

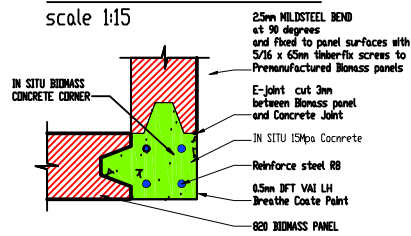


PLAN LAYOUT BLOCK E52P
scale 1:100

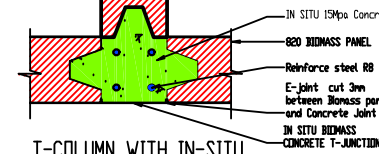
S-JOINT COLUMN WITH
IN-SITU 15Mpa Concrete
scale 1:15



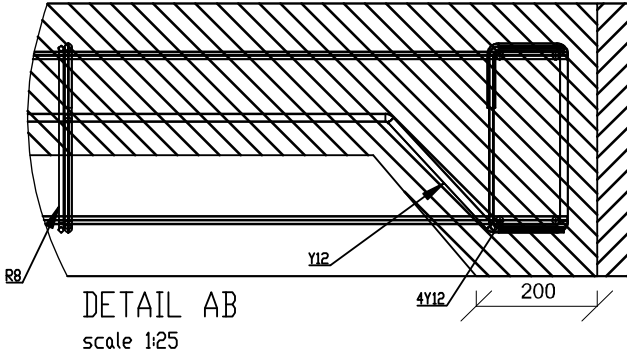
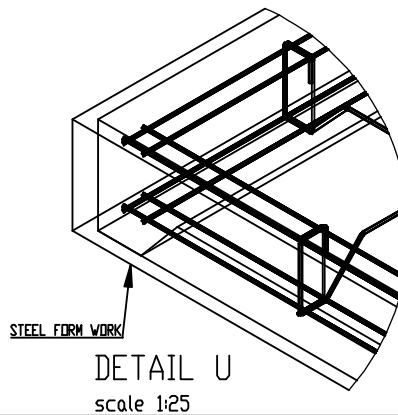
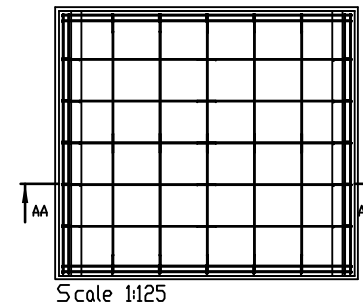
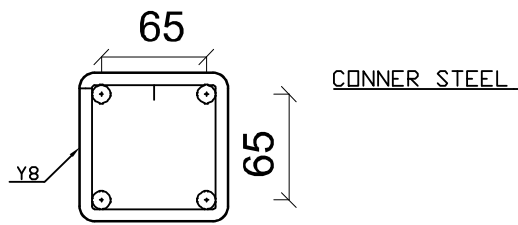
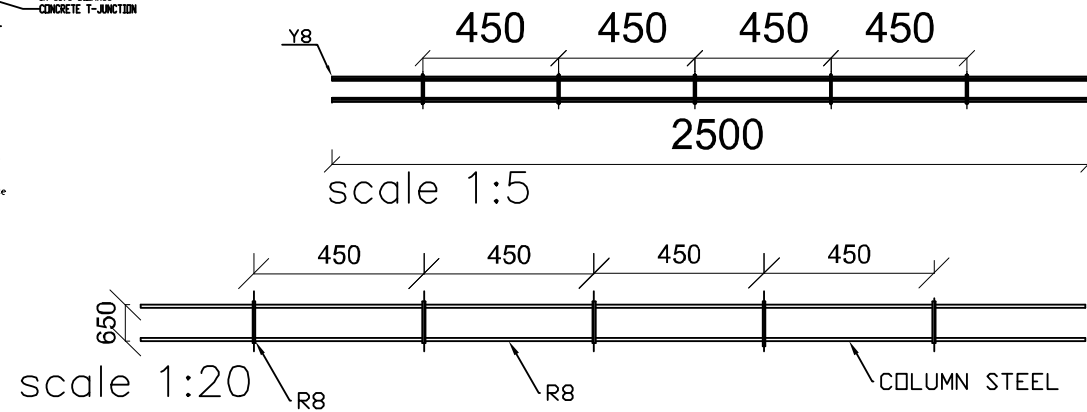
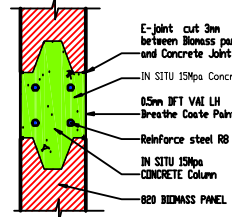
L- COLUMN WITH IN SITU 15Mpa
CONCRETE IN STEEL FORMWORK.
scale 1:15



T-COLUMN WITH IN-SITU
15Mpa CONCRETE
scale 1:15



S-JOINT COLUMN WITH
IN-SITU 15Mpa CONCRETE
scale 1:15



All dimensions to be checked on site and on drawings, any discrepancies to be reported to the architect before work is put to hand. Only Round dimensions are to be given. All levels to be checked on site & on drawings & any discrepancies must be reported to the architect before any work is put to hand. All levels shown are finished floor levels. Soil and founding conditions must be checked and verified by a geotechnical engineer. All work must be completed in accordance with SANS 10400 and the current National Building Regulations. All structural work must be checked by a structural engineer & must be read in conjunction with the drawings.

DEW SYSTEM NOTE:
Final position of the DEW (Decentralized Ecological Waste Water Treatment) System to be confirmed on site by a Supervising Contractor from Isiduna

DRAINAGE NOTES:
RE's to all changes in direction of soil pipes, IE's to all bends & junctions. Reseal traps to all waste fittings. Waste pipes are to be on freely accessible along entire length. Bends & junctions are not to be located under the building. Soil pipes located under building to be protected from load. All work to comply with Local Authority by-laws.

Pipe sizes: 160mm
110mm w/b 50mm
110mm slrk 50mm

COMPLIANCE NOTES - SANS 10400 - A:2010 Edition - refers:
FORMWORK: STRUCTURE AND CLADDING:
Where required verified by the appointed structural engineer, and constructed in accordance with SANS 16151 and SANS 10005, The Preservative treatment of steel shuttering and compliance to safety requirements.

PROTECTION:
prototype Biomass Insulated Concrete tested in accordance to SANS 101077-2 Fire testing of materials and complies to Agrima 2018-578 components and elements used in Buildings - Part 2. The resistance test for wall elements comply to FR180min and roof slab elements to 80min. Fire protection in accordance with SANS 10400 Part 1: Fire protection and any fire equipment installation and signage in accordance with SANS 10400 Part Installations and Duty 10 based on Rational Fire S. Design.

STRUCTURAL DESIGN:
structure in accordance with SANS 10400 Part B, structural. Subject to the design of the appointed structural engineer.

DIMENSIONS:
accordance with SANS 10400 Part C, Dimensions.

SAFETY:
All site safety requirements remains the responsibility of the contractor and H&S guidelines issued by the representative of the client WOF must be adhered to and ensure safety around schools and school ablations. Balustrades in accordance with SANS 10400 Part D, public

OPERATIONS:
accordance with Agrima Approved LIGHT HOUSE construction procedure SANS 10400 Part F, site operations

FOUNDATIONS:
Foundations to be in accordance with SANS 10400 foundations and strictly to engineers' designs & specs.
Floors to be in accordance with SANS 10400 Part - Floors.
Walls to be in accordance with SANS 10400 Part - Walls.
Material & structure to be in accordance with SANS Part - Roofs and design subject to verification by structural engineer.

STAIRCASE:
staircase to be constructed in accordance with SANS Part M, stairways.

DOORS & WINDOWS:
Doors & windows to be in accordance with SANS 10400 Part N, and Part O Lighting and ventilation.

DRAINAGE AND STORMWATER DISPOSAL:
constructed in accordance with Part SANS 10400, Drainage and - accordance with Part - SANS 10400, Stormwater disposal.

204 AND SANS 10400XA:
Compliant - full report available on request.

General description:
Light House Building system 2018-578 is designed for the erection of single-story structures. The system comprises of walls made from clipped biomass concrete mixture. The biomass concrete mixture consists of binder cement and additives, aggregate and wood chips.
The Light House system for School ablations is erected on a conventional concrete raft foundation that is designed by an approved competent person.
Roofs can either be constructed from in situ and precast concrete material or timber trusses, with light- or heavy weight roof cladding.

Walls are either cast in situ, or precast of panels (2400mm high and 820mm wide). The density of the cured biomass concrete mixture is 1100 and 1300kg/m3.
Walls are constructed in thickness ranging from 50mm for internal toilet partitioning walls to 130mm external walls.
External walls must be painted with a 1mm thick VAI-Breathecoat cement base plaster render.



NATURAL ENGINEERING SOLUTIONS
PROFESSIONAL ENGINEERS
REG. NO. 100010001
REG. NO. 100010001
REG. NO. 100010001
REG. NO. 100010001

Light House School Ablution Project 18023
A program of Dept of Environmental Affairs in
Partnership with WRC & DBE

INTELLECTUAL PROPERTY RIGHTS:
- The Light House School Ablution design by DEA
- Intellectual property right is vested in DEA
- Working On Fire through VAI is the implementing agent
- All contractors, service providers & appointments will require NDA & warrant agreement for use of this Agrima 2018/578 approved process of construction
- WOF/VAI will have the right to withdraw any process

Drawn: CA Gaido CAD20001
NES Arch. A.J. Orlife BT0478
ES Sr. Eng. W. ESTERHUIZEN
NES Prof. Eng. D. DOOTHUIZEN

PROJECT: NEW ABLUTION BLOCK
DUDUMAYO SENIOR SECONDARY
MTHATHA
EASTERN CAPE

CLIENT:
WORKING ON FIRE (PTY) LTD.
Client Signature

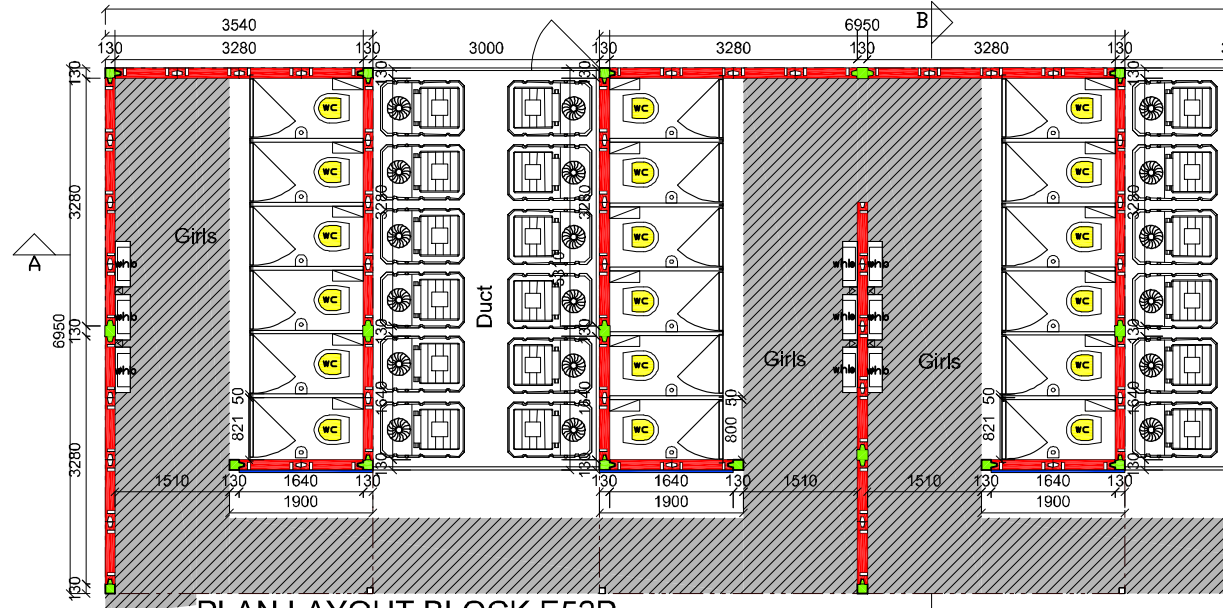
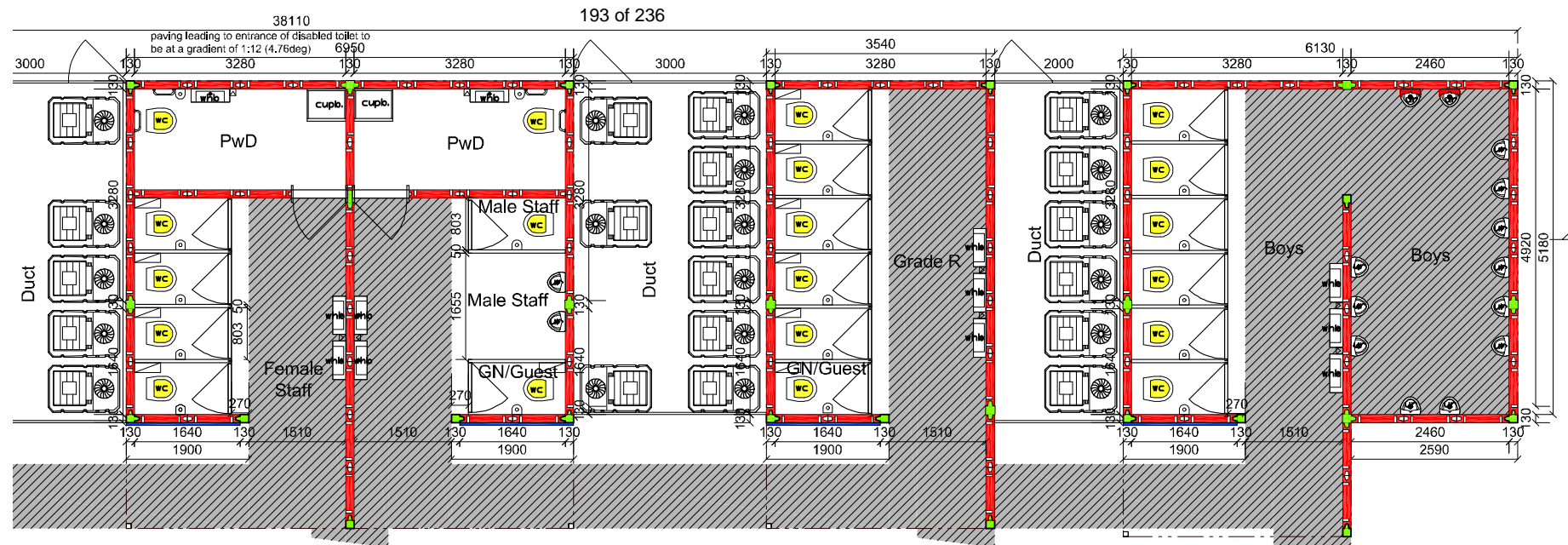
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PROJECT No. 18023-EC-E52P-D/45 TITLE: see plan
SHEET No. 1 of 5 REVISION No. DRAFT 02

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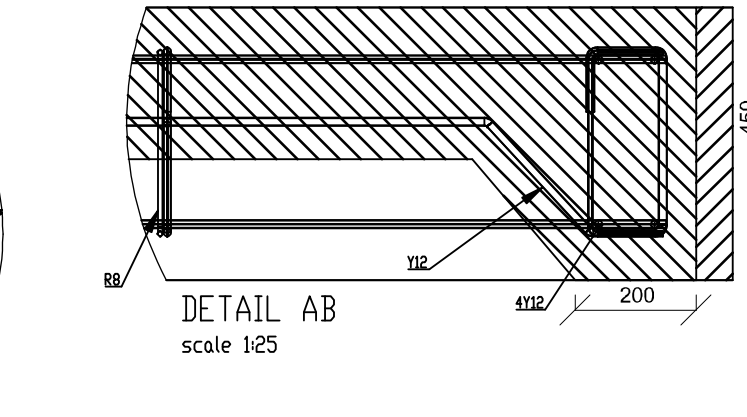
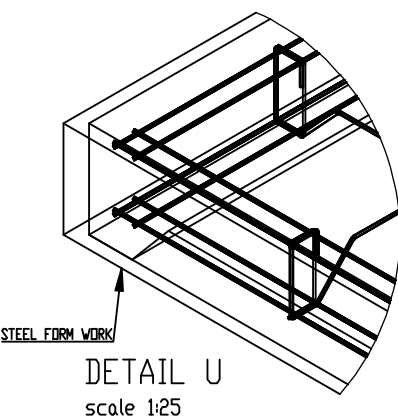
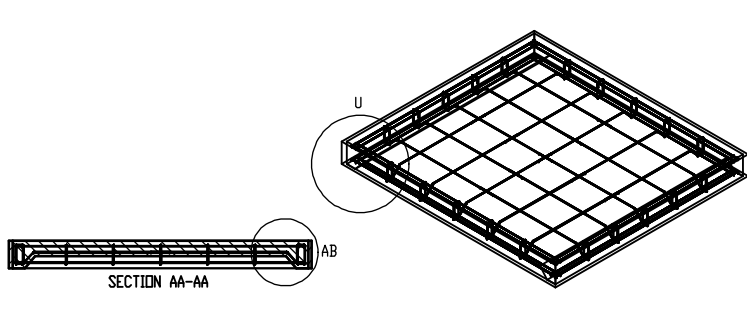
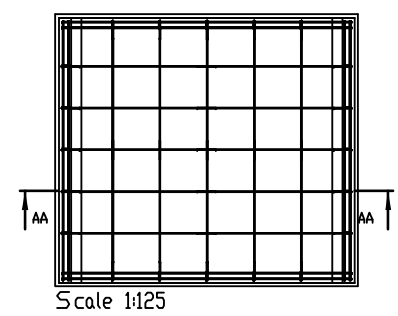
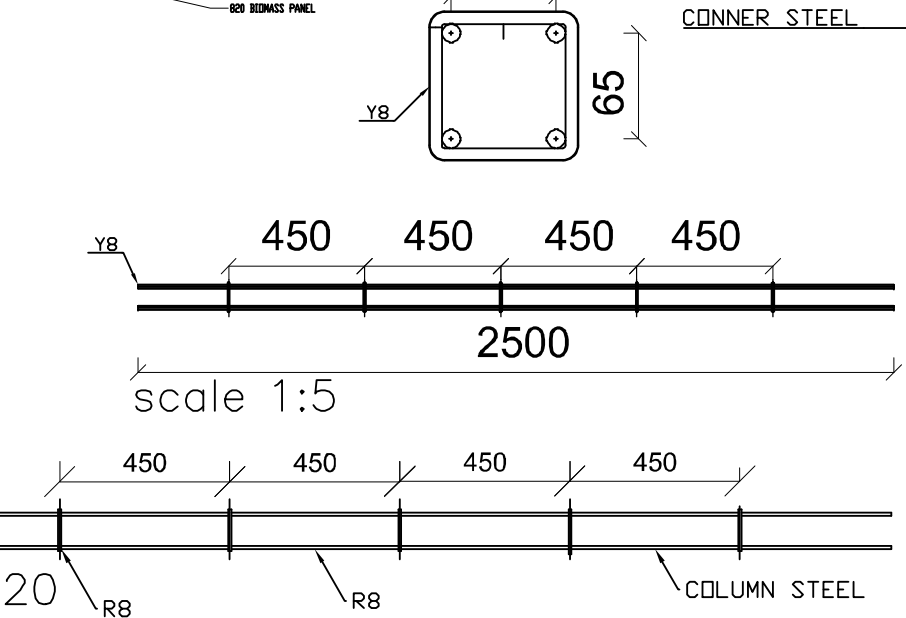
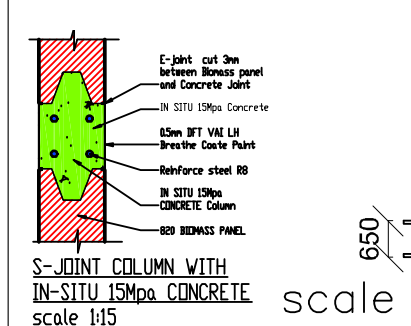
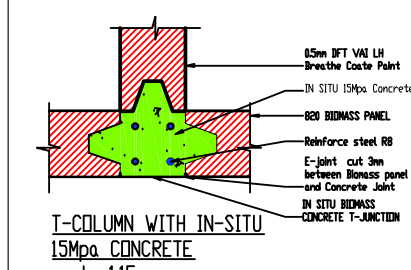
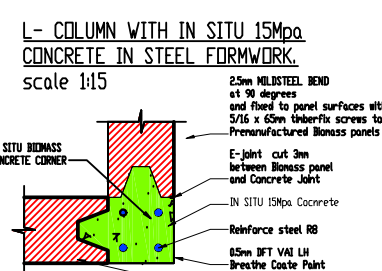
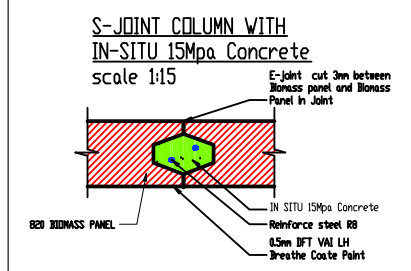


SITE PLAN
scale 1:1000

NOTE TO CONTRACTOR:
Final Position of Building &/or Septic Tanks
& Soak Away to be determined on Site



PLAN LAYOUT BLOCK E52P
scale 1:100



All dimensions to be checked on site and on drawings, any discrepancies to be reported to the architect before work is put to hand. Only figured dimensions are to be used. All levels to be checked on site & on drawings & any discrepancies must be reported to the architect before any work is put to hand. All levels shown are finished floor levels. Soil and founding conditions must be checked and verified by a geotechnical engineer. All work must be completed in accordance with SANS 10400 and the current National Building Regulations. All structural work must be checked by a structural engineer & must be read in conjunction with their drawings.

DEW SYSTEM NOTE:
Final position of the DEW (Decentralized Ecological Waste Water Treatment) System to be confirmed on site by a Supervising Contractor from Isidima

DRAINAGE NOTES:
RE's to all changes in direction of soil pipes, IE's to all bends & junctions. Reseal traps to all waste fittings. Waste pipes are to be entirely accessible along their length. Bends & junctions are not to be located under the building. Soil pipes located under building to be protected from load. All work to comply with Local Authority by-laws.

Pipe sizes: 160mm
110mm w/b 50mm
110mm slk 50mm

COMPLIANCE NOTES - SANS 10400 - A:2010 Edition - refers:

FORMWORK: STRUCTURE AND CLADDING:
Where required verified by the appointed structural engineer, and constructed in accordance with SANS 16151 and SANS 10005, The Preservative treatment of steel shuttering and compliance to safety requirements.

PROTECTION:
prototype Biomass Insulated Concrete tested in accordance to SANS 101077-2 Fire testing of materials and complies to Agrima 2018-578, components and elements used in buildings - Part 2. Fire resistance test for wall elements comply to FR180min and roof slab elements to 60min. Fire protection in accordance with SANS 10400 Part 1: Fire protection and any fire equipment installation and signage in accordance with SANS 10400 Part 1: Installations and Duty 10 based on Rational Fire S. Design.

STRUCTURAL DESIGN:
structure in accordance with SANS 10400 Part B, structural. Subject to the design of the appointed structural engineer.

DIMENSIONS:
accordance with SANS 10400 Part C, Dimensions.

SAFETY:
All site safety requirements remains the responsibility of the contractor and H&S guidelines issued by the representative of the client WOF must be adhered to and ensure safety around schools and school ablations. Balustrades in accordance with SANS 10400 Part D, public.

OPERATIONS:
accordance with Agrima Approved LIGHT HOUSE Construction procedure SANS 10400 Part F, site operations

FOUNDATIONS:
Foundations to be in accordance with SANS 10400 foundations and strictly to engineers' designs & specs, Floors to be in accordance with SANS 10400 Part - Floors, Walls to be in accordance with SANS 10400 Part - Walls, Material & structure to be in accordance with SANS Part - Roofs and design subject to verification by structural engineer.

STAIRCASE:
staircase to be constructed in accordance with SANS Part M, stairways.

DOORS & WINDOWS:
Doors & windows to be in accordance with SANS 10400 Part N, and Part O lighting and ventilation.

DRAINAGE AND STORMWATER DISPOSAL:
constructed in accordance with Part SANS 10400, Drainage and - accordance with Part - SANS 10400, Stormwater disposal.

204 AND SANS 10400XA:
Compliant - full report available on request.

General description:
Light House Building system 2018-578 is designed for the erection of single-story structures. The system consists of walls made from chipbed biomass concrete mixture. The biomass concrete mixture consists of binder cement and additives, aggregate and wood chips. The Light House system for School ablations is erected on a conventional concrete raft foundation that is designed by an approved competent person. Raft can either be constructed from in situ and precast concrete material or timber trusses, with light- or heavy weight roof cladding.

Walls are either cast in situ, or precast of panels (2400mm high and 820mm wide). The density of the cured biomass concrete mixture is 1100 and 1300kg/m3.
Walls are constructed in thickness ranging from 50mm for internal toilet partitioning walls to 130mm external walls.
External walls must be painted with a 1mm thick VAI-Breathecoat cement base plaster render.

NES CONSULT & ASSOCIATES

NATURAL ENGINEERING SOLUTIONS

REGISTERED OFFICE: 101 001 001
TEL: 011 234 2000
FAX: 011 234 2000
CELL: 082 234 2000
EMAIL: nes@consult.co.za

PROFESSIONAL ENGINEERS
REGISTERED ENGINEERS
MEMBER OF THE ENGINEERING BOARD OF SOUTH AFRICA
MEMBER OF THE ENGINEERING BOARD OF SOUTH AFRICA

Light House School Ablution Project 18023
A program of Dept of Environmental Affairs in Partnership with WRC & DBE

INTELLECTUAL PROPERTY RIGHTS:
- The Light House School Ablution design by DEA
- Intellectual property rights is vested in DEA
- Working On Fire through VAI is the implementing agent
- All contractors, service providers & appointments will require NDA & warrant agreement for use of this Agrima 2018/578 approved process of construction
- WOF/VAI will have the right to withdraw any process

Designer: CA Gaidler	CAD/DESIGN
NES Arch. A.J. Olofofe	BT0478
ES Str. Eng. W. ESTERHUIZEN	
NES Prof. Eng. D. OOSTERHUIZEN	

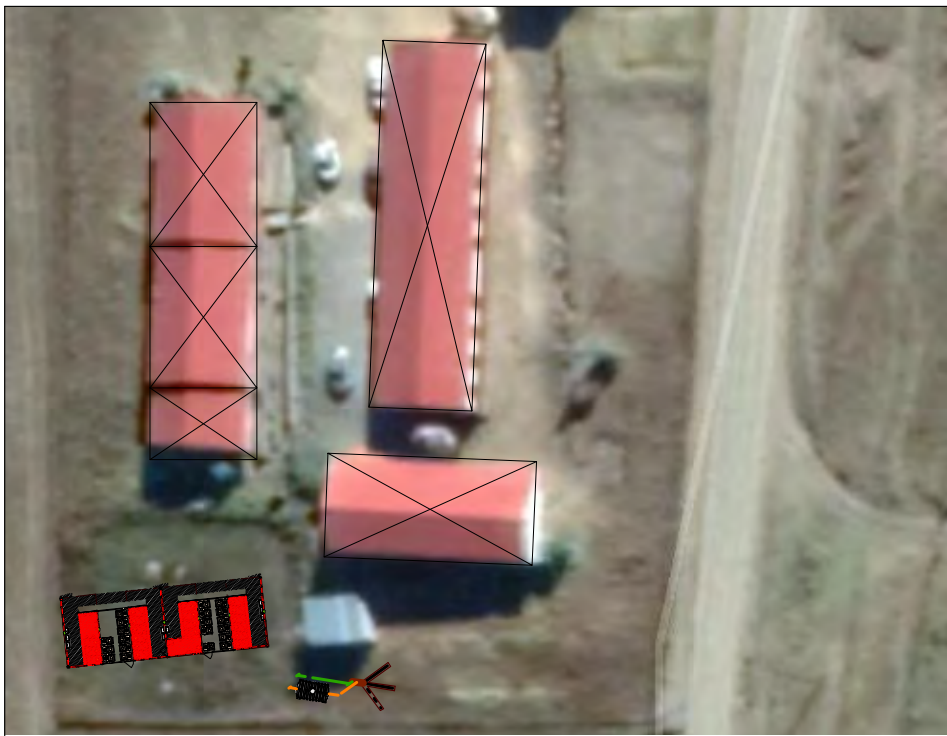
PROJECT: NEW ABLUTION BLOCK
MQANDULI VILLAGE JUNIOR SECONDARY
MTHATHA
EASTERN CAPE

CLIENT:
WORKING ON FIRE (PTY) LTD.

Client Signature

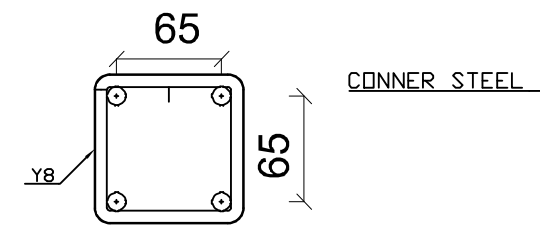
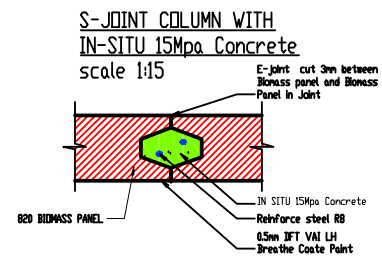
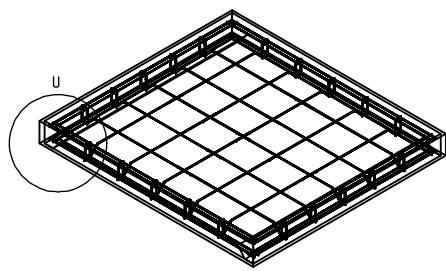
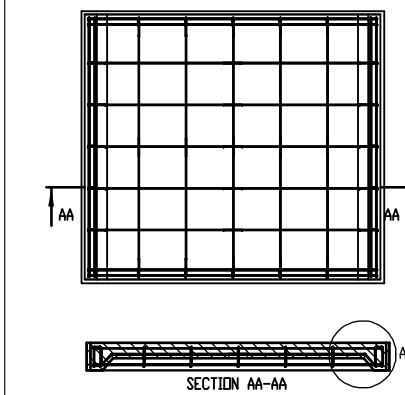
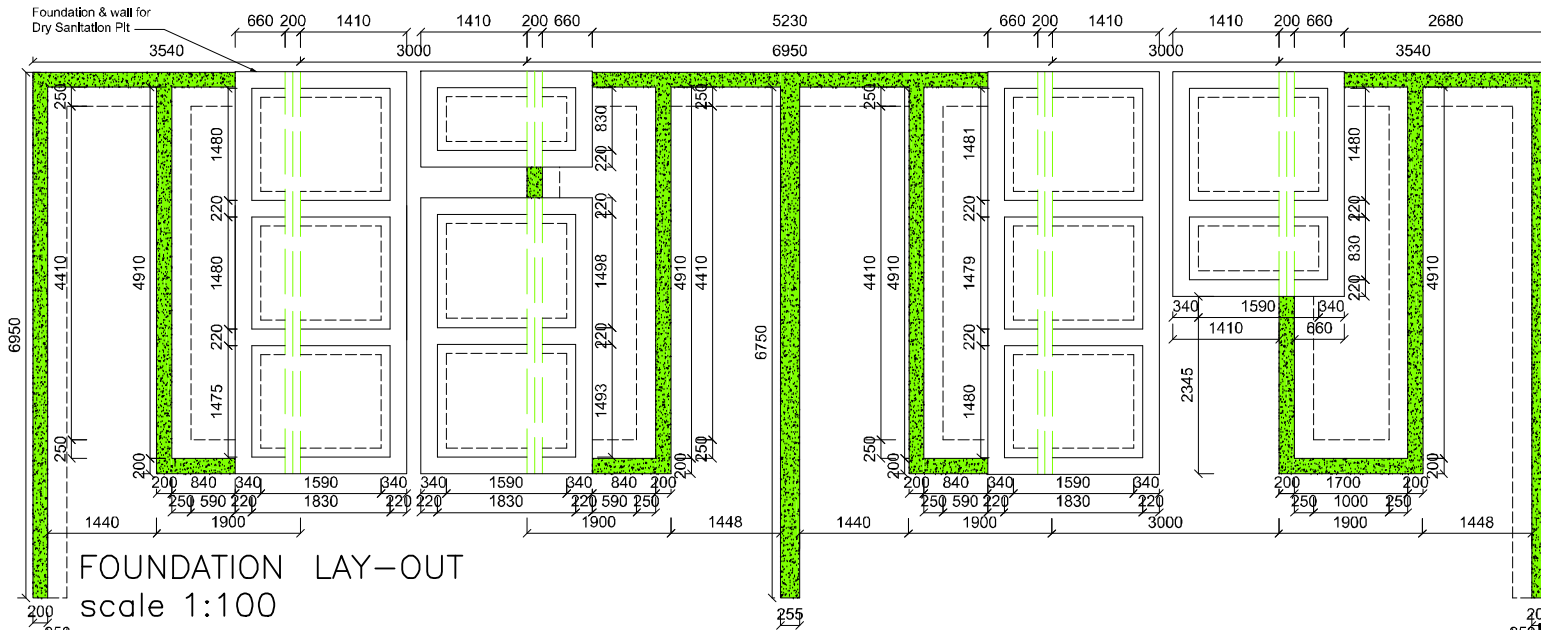
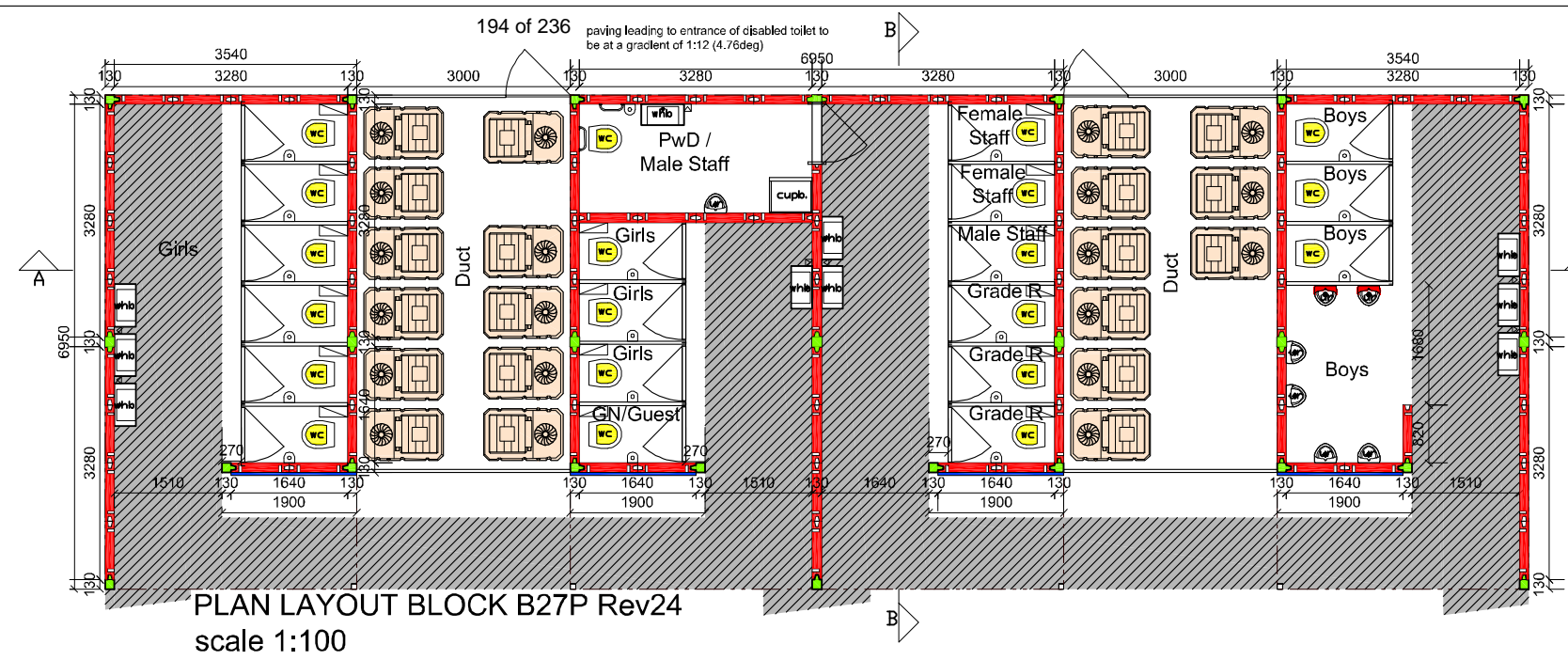
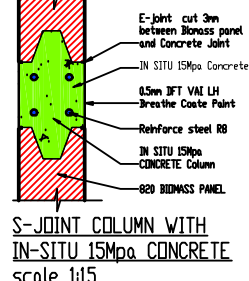
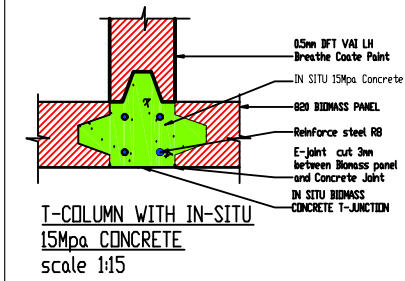
DATE: Sept, 2019	SCALE: see plan
PROJECT No. 18023-EC/E52P-D/46	TITLE: see plan
SHEET No. 1 of 5	REVISION No. DRAFT 02

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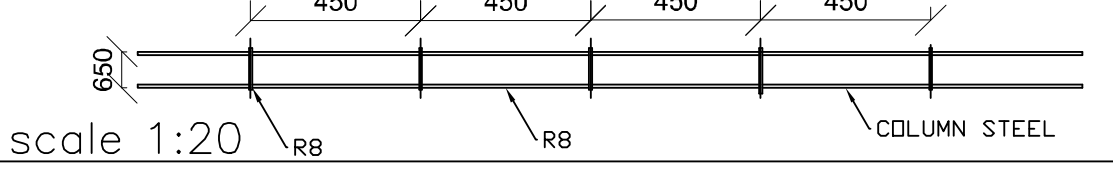
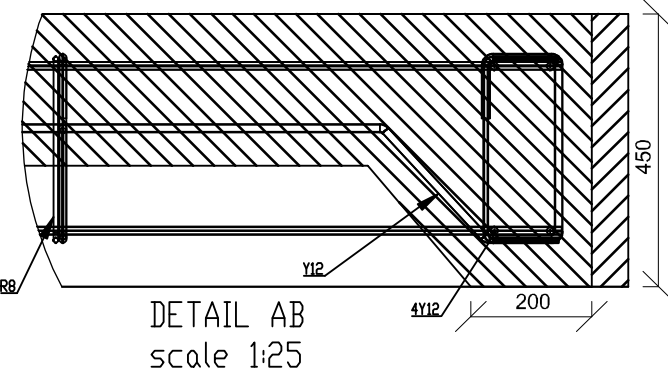
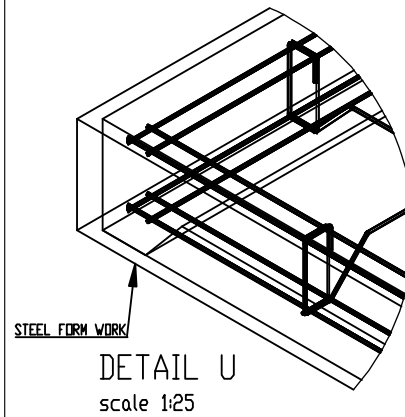
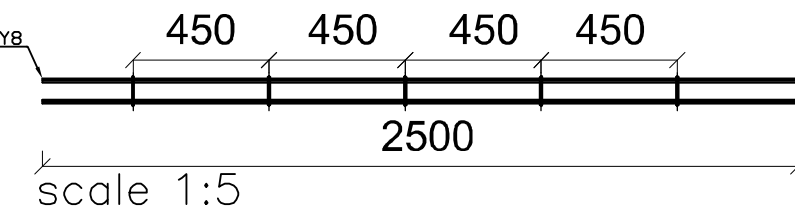
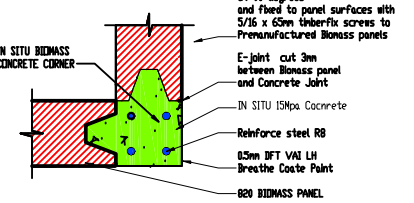


SITE PLAN
scale 1:750

NOTE TO CONTRACTOR:
Final Position of Building &/or Septic Tanks
& Soak Away to be determined on Site



L-COLUMN WITH IN SITU 15Mpa CONCRETE IN STEEL FORMWORK
scale 1:15



All dimensions to be checked on site and on drawings, any discrepancies to be reported to the architect before work is put to hand. Only signed dimensions are to be taken. All levels to be checked on site & on drawings & any discrepancies must be reported to the architect before any work is put to hand. All levels shown are finished floor levels. Soil and founding conditions must be checked and verified by a geotechnical engineer. All work must be completed in accordance with SANS 10400 and the current National Building Regulations. All structural work must be checked by a structural engineer & must be read in conjunction with their drawings.

DEW SYSTEM NOTE:
Final position of the DEW (Decentralized Ecological Waste Water Treatment) System to be confirmed on site by a Supervising Contractor from Isidima

DRAINAGE NOTES:
RE's to all changes in direction of soil pipes, IE's to all bends & junctions. Reseal traps to all waste fittings. Waste pipes are to be entirely accessible along entire length. Bends & junctions are not to be located under the building. Sill slopes located under floor to be protected from load. All work to comply with Local Authority by-laws.

COMPLIANCE NOTES - SANS 10400 - A:2010 Edition - refers:

FORMWORK: STRUCTURE AND CLADDING:
Where required verified by the appointed structural engineer, and constructed in accordance with SANS 16151 and SANS 10005. The Preservative treatment of steel shuttering and compliance to safety requirements.

PROTECTION:
prototype Biomass Insulated Concrete tested in accordance to SANS 10107-2 Fire testing of materials and complies to Agreem2018-578 components and elements used in buildings - Part 2: Fire resistance test for wall elements comply to FR180-min and roof slab elements to 60min. Fire protection in accordance with SANS 10400 Part 2: Fire protection and any fire equipment installation and signage in accordance with SANS 10400 Part 1 installations and Duty 10 based on Rational Fire S. Design.

STRUCTURAL DESIGN:
structure in accordance with SANS 10400 Part B, structural. Subject to the design of the appointed structural engineer.

DIMENSIONS:
accordance with SANS 10400 Part C, Dimensions.

SAFETY:
All site safety requirements remains the responsibility of the contractor and HAS guidelines issued by the representative of the client WOP must be adhered to and ensure safety around schools and school activities. Balustrades in accordance with SANS 10400 Part D, public.

OPERATIONS:
in accordance with Agrilima Approved LIGHT HOUSE Construction procedure SANS 10400 Part F, site operations

FOUNDATIONS:
Foundations to be in accordance with SANS 10400 foundations and strictly to engineers' designs & specs.
Floors to be in accordance with SANS 10400 Part - Floors.
Walls to be in accordance with SANS 10400 Part - Walls.
Material & structure to be in accordance with SANS Part - Roofs and design subject to verification by structural engineer.

STAIRCASE:
staircase to be constructed in accordance with SANS Part M, stairways.

DOORS & WINDOWS:
Doors & windows to be in accordance with SANS 10400 Part N, and Part O lighting and ventilation.

DRAINAGE AND STORMWATER DISPOSAL:
constructed in accordance with Part SANS 10400. Drainage and - accordance with Part - SANS 10400. Stormwater disposal.

204 AND SANS 10400XIA:
Compliant - full report available on request.

General description:
Light House Building system 2018-578 is designed for the erection of single-storey structures. The system comprises of walls made from chipped biomass concrete mixture. The biomass concrete mixture consists of binder cement and additives, aggregate and wood chips.
The Light House system for School ablutions is erected on a conventional concrete raft foundation that is designed by an approved competent person.
Roofs can either be constructed from in situ and precast concrete material or timber trusses, with light or heavy weight roof cladding.
Walls are either cast in situ, or pre-made of panels (2400mm and High and 820mm wide). The density of the cured biomass concrete mixture is 1100 and 1300kg/m³.
Walls are constructed in thickness ranging from 50mm for internal toilet partitioning walls to 130mm external walls.
External walls must be painted with a 1mm thick VAI-Breathcoat cement base plaster render.

NES CONSULT & ASSOCIATES
NATURAL ENGINEERING SOLUTIONS
PROFESSIONAL ENGINEERS
Light House School Ablution Project 18023
A program of Dept of Environmental Affairs in Partnership with WRC & DBE

INTELLECTUAL PROPERTY RIGHTS:
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- WOP/VAI will have the right to withdraw any process

PROJECT: NEW ABLUTION BLOCK
GWEBINKUNDLA JUNIOR SECONDARY
MTHATHA
EASTERN CAPE

CLIENT:
WORKING ON FIRE (PTY) LTD.

Client Signature

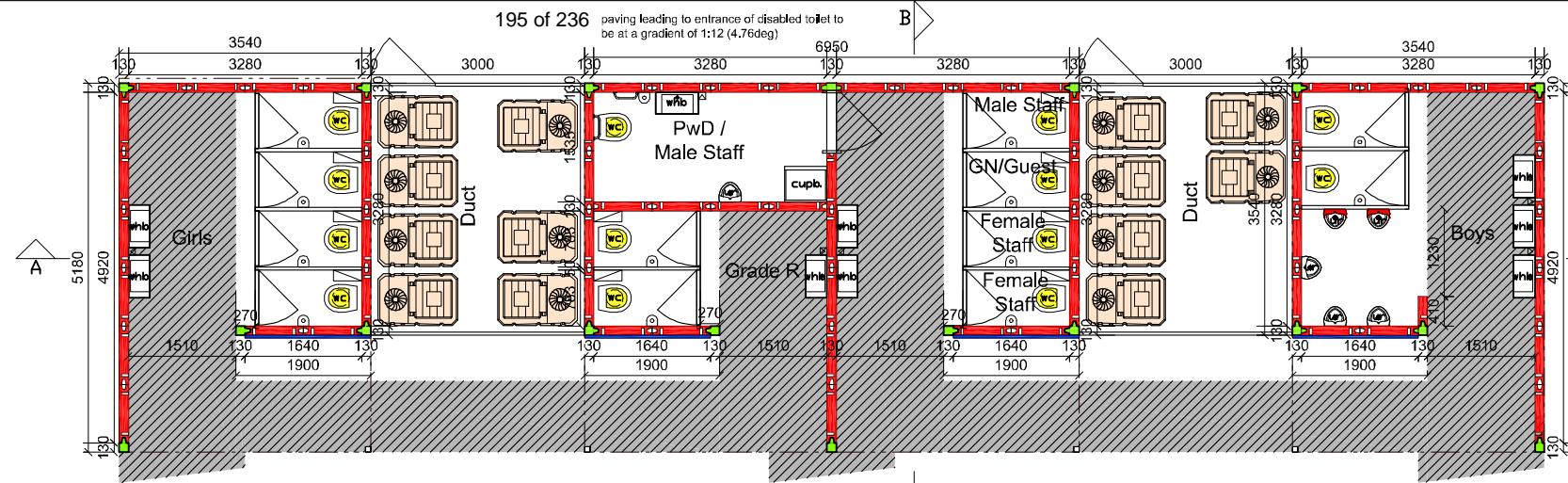
DATE: Sept, 2019 **SCALE:** see plan
PROJECT No. 18023-EC/B27P-043 **TITLE:** see plan
SHEET No. 1 of 1 **REVISION No. DRAFT 02**

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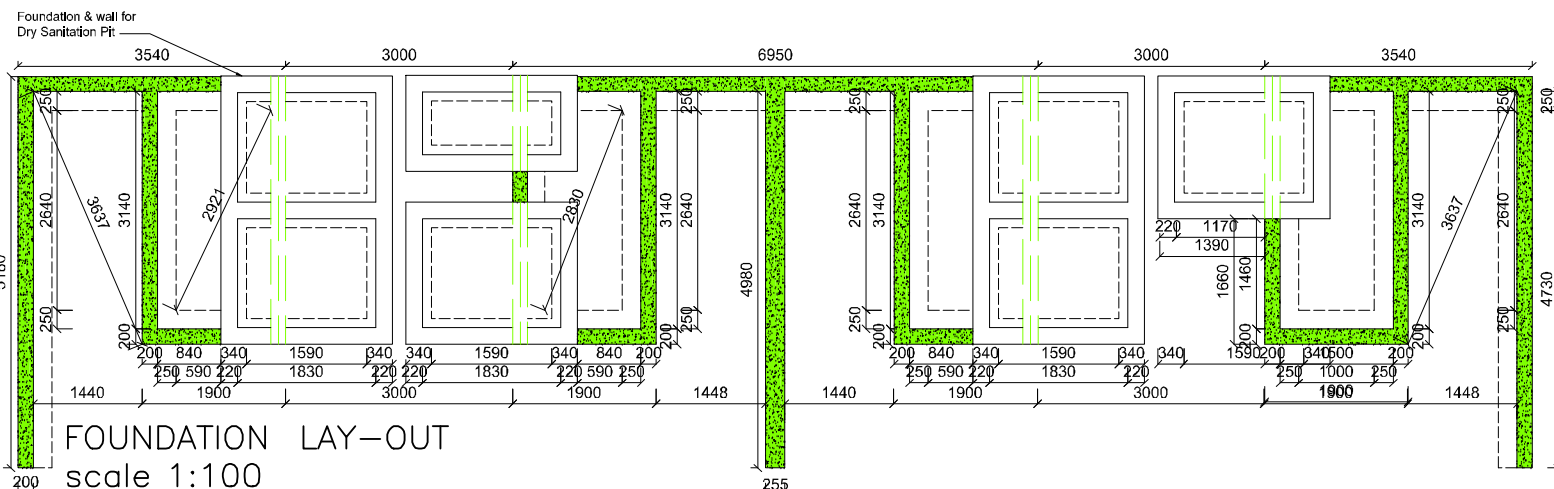


SITE PLAN
scale 1:750

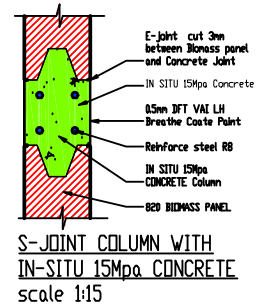
NOTE TO CONTRACTOR:
Final Position of Building &/or Septic Tanks & Soak Away to be determined on Site



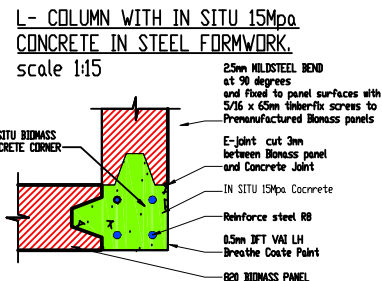
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scale 1:100



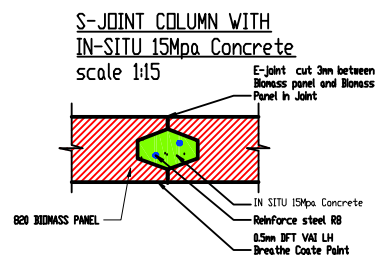
FOUNDATION LAY-OUT
scale 1:100



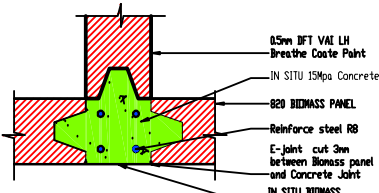
S-JOINT COLUMN WITH IN-SITU 15Mpa CONCRETE
scale 1:15



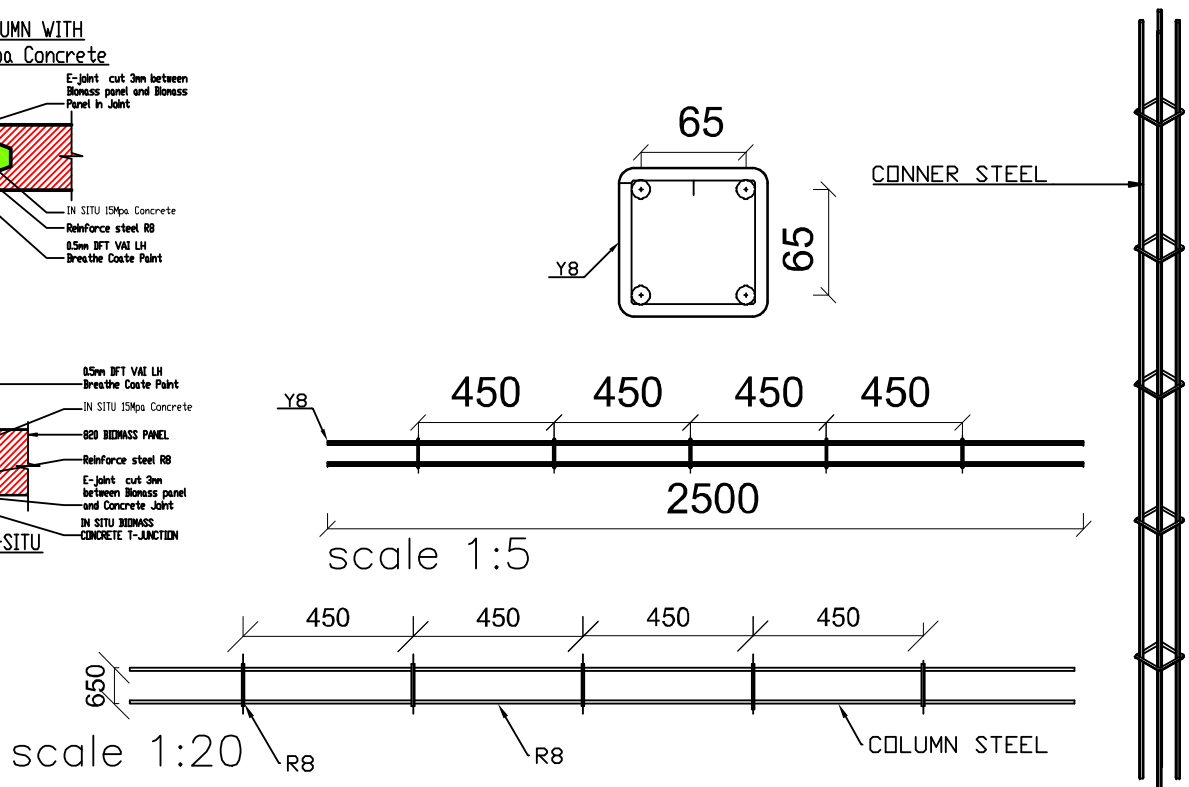
L-COLUMN WITH IN SITU 15Mpa CONCRETE IN STEEL FORMWORK
scale 1:15



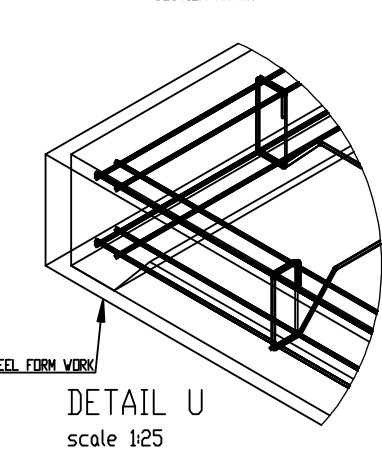
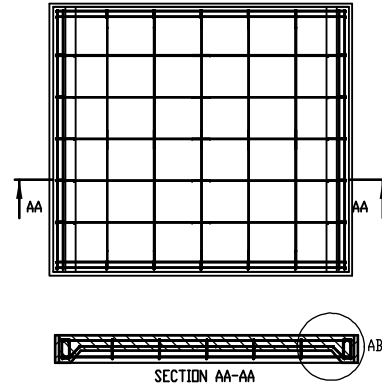
S-JOINT COLUMN WITH IN-SITU 15Mpa Concrete
scale 1:15



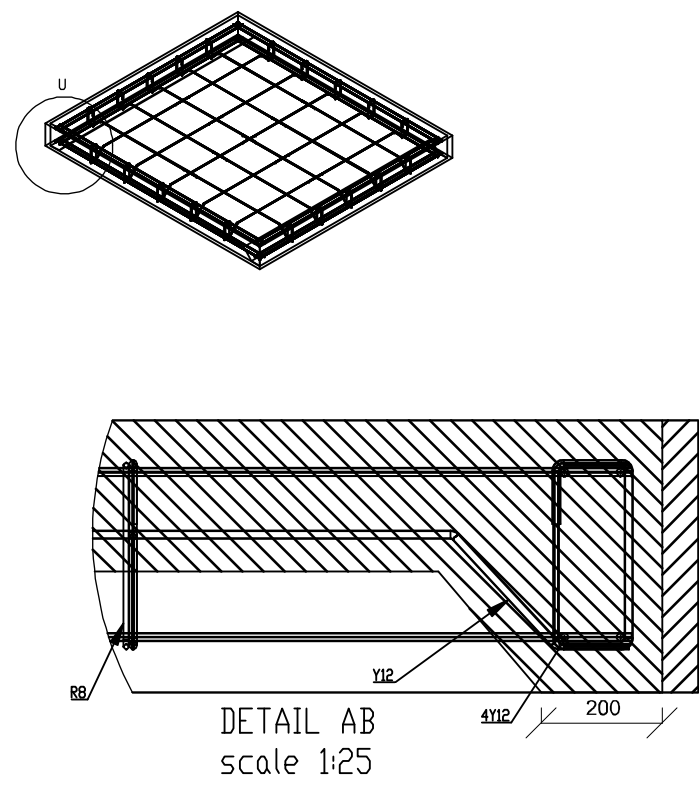
T-COLUMN WITH IN-SITU 15Mpa CONCRETE
scale 1:15



scale 1:20



DETAIL U
scale 1:25



DETAIL AB
scale 1:25

Dimensions to be checked on site and on drawings, any discrepancies to be reported to the architect before work is put to hand. Only figured dimensions are to be taken, all levels to be checked on site and on drawings & any discrepancies must be reported to the architect before any work is put to hand. All levels shown are finished floor levels. Soil and founding conditions must be checked and verified by a geotechnical engineer. All work must be completed in accordance with SANS 10400 and the current National Building Regulations. All structural work must be checked by a structural engineer & must be read in conjunction with that drawing.

DEW SYSTEM NOTE:
Final position of the DEW (Decentralized Ecological Waste Water Treatment) System to be confirmed on site by a Supervising Contractor from testing.

DRAINAGE NOTES:
REFs to all changes in direction of soil pipes, IE's to all bends & junctions. Reseal traps to all waste fittings. Waste pipes are to be entirely accessible along entire length. Bends & junctions are not to be located under the building. Soil pipes located under building to be protected from load. All work to comply with Local Authority by-laws.

PIPE SIZES:
150mm w/b 50mm
110mm sink 50mm

COMPLIANCE NOTES - SANS 10400 - A:2010 Edition - refers:

FORMWORK: STRUCTURE AND CLADDING:
Where required verified by the appointed structural engineer, and constructed in accordance with SANS 18151 and SANS 10005. The Preservative treatment of steel shuttering and compliance to safety requirements.

PROTECTION:
prototype Biomass Insulated Concrete tested in accordance with SANS 101077-2 Fire testing of materials and composite to Agreema2018-578. components and elements used in buildings - Part C. Fire resistance test for wall elements comply to FR180min and roof slab elements to 60min. Fire protection in accordance with SANS10400 Part 1: Fire protection and any the equipment installation and signage in accordance with SANS 10400 Part 1: Installations and Duty 10 based on Rational Fire S. Design.

STRUCTURAL DESIGN:
structure in accordance with SANS 10400 Part B, structural. Subject to the design of the appointed structural engineer.

DIMENSIONS:
accordance with SANS 10400 Part C, Dimensions.

SAFETY:
All site safety requirements remains the responsibility of the contractor and H&S guidelines issued by the representative of the client WOF must be adhered to and ensure safety around schools and school solutions. Balustrades in accordance with SANS 10400 Part D, public.

OPERATIONS:
accordance with Agreema Approved LIGHT HOUSE Construction procedure SANS 10400 Part F, site operations.

FOUNDATIONS:
Foundations to be in accordance with SANS 10400 foundations and strictly to engineers' designs & specs. Floors to be in accordance with SANS 10400 Part - Floors. Walls to be in accordance with SANS 10400 Part - Walls. Material & structure to be in accordance with SANS Part - Roofs and design subject to verification by structural engineer.

STAIRCASE:
staircase to be constructed in accordance with SANS Part M, stairways.

DOORS & WINDOWS:
Doors & windows to be in accordance with SANS 10400 Part N, and Part O lighting and ventilation.

DRAINAGE AND STORMWATER DISPOSAL:
constructed in accordance with Part SANS 10400. Drainage and - accordance with Part - SANS 10400. Stormwater disposal.

204 AND SANS 10400XA:
Compliant - full report available on request.

General description:
Light House Building system 2018-578 is designed for the erection of single-story structures. The system comprises of walls made from chipped biomass concrete mixture. The biomass concrete mixture consists of binder cement and additives, aggregate and wood chips. The Light House system for School ablutions is erected on a conventional concrete raft foundation that is designed by an approved competent person. Rafts can either be constructed from in situ or precast concrete material or timber trusses, with light or heavy weight roof cladding. Walls are either cast in situ, or premade of panels (2400mm high and 820mm wide). The density of the cured biomass concrete mixture is 1100 and 1300kg/m3. Walls are constructed in thickness ranging from 50mm for internal toilet partitioning walls to 130mm external walls. External walls must be painted with a 1mm thick VAI-Breathecoat cement base plaster render.

NES CONSULT & ASSOCIATES

NATURAL ENGINEERING SOLUTIONS

REGISTERED OFFICE: 402 260 260
TEL: 402 260 260
FAX: 402 260 260
CELL: 402 260 260
EMAIL: nes@consult.co.za

PROFESSIONAL ENGINEERS: 60227962005
REGISTERED ENGINEERS: 60227962005
MEMBER OF THE ENGINEERING BOARD OF SOUTH AFRICA

Light House School Ablution Project 18023
A program of Dept of Environmental Affairs in Partnership with WRC & DBE

INTELLECTUAL PROPERTY RIGHTS:
- The Light House School Ablution design by DEA
- Intellectual property right is vested in DEA
- Working On Fire through VAI is the implementing agent
- All contractors, service providers & appointments will require NDA & warrant agreement for use of this Agreema 2018/578 approved process of construction
- WOF/VAI will have the right to withdraw any process

Design: CA Gaido CAD20505
NES Arch: A.J. Oelofse S18478
ES Sr. Eng. W. ESTERHUIZEN
NES Proj. Eng. D. OOSTHUIZEN

PROJECT: NEW ABLUTION BLOCK
FUTYE JUNIOR SECONDARY
MTHATHA
EASTERN CAPE

CLIENT: WORKING ON FIRE (PTY) LTD.

Client Signature

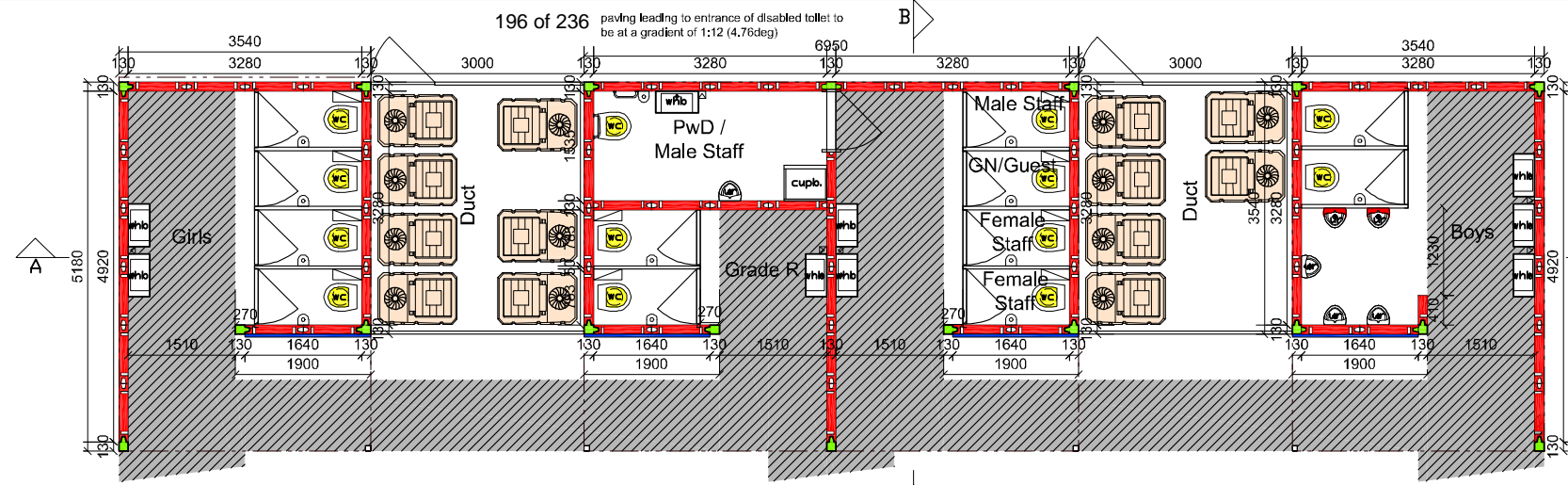
DATE: Sept 2019 SCALE: see plan
PROJECT No. 18023-EC/A19P-D49 TITLE: see plan
SHEET No. 1 of 4 REVISION No. DRAFT 02

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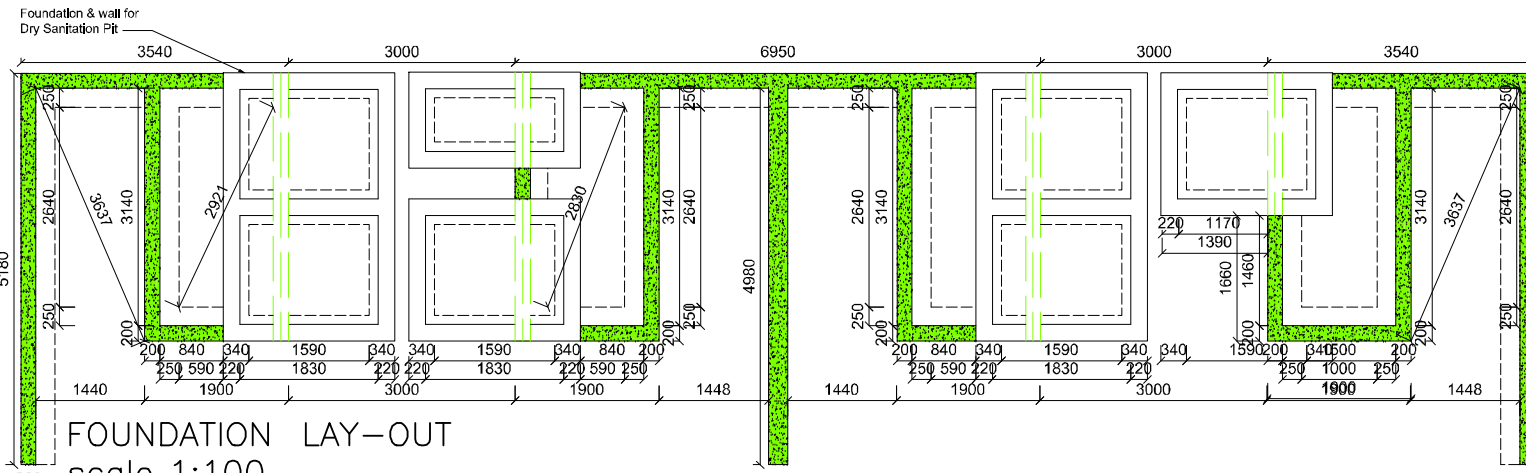


SITE PLAN
scale 1:750

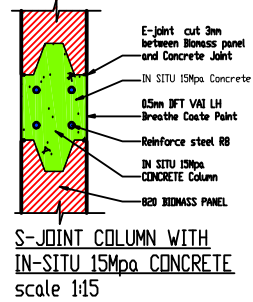
NOTE TO CONTRACTOR:
Final Position of Building &/or Septic Tanks & Soak Away to be determined on Site



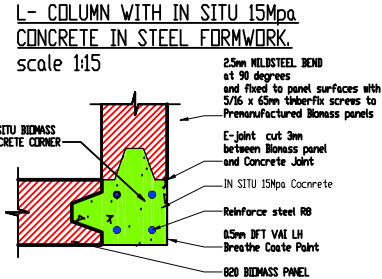
PLAN LAYOUT BLOCK A19P
scale 1:100



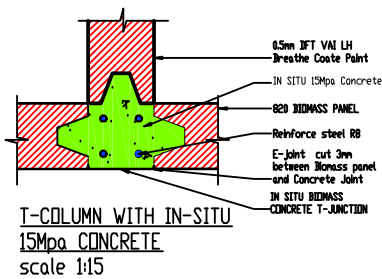
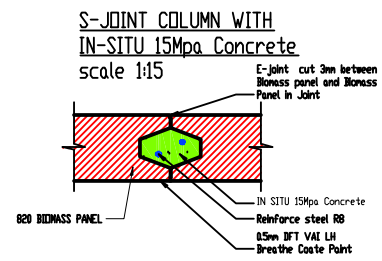
FOUNDATION LAY-OUT
scale 1:100



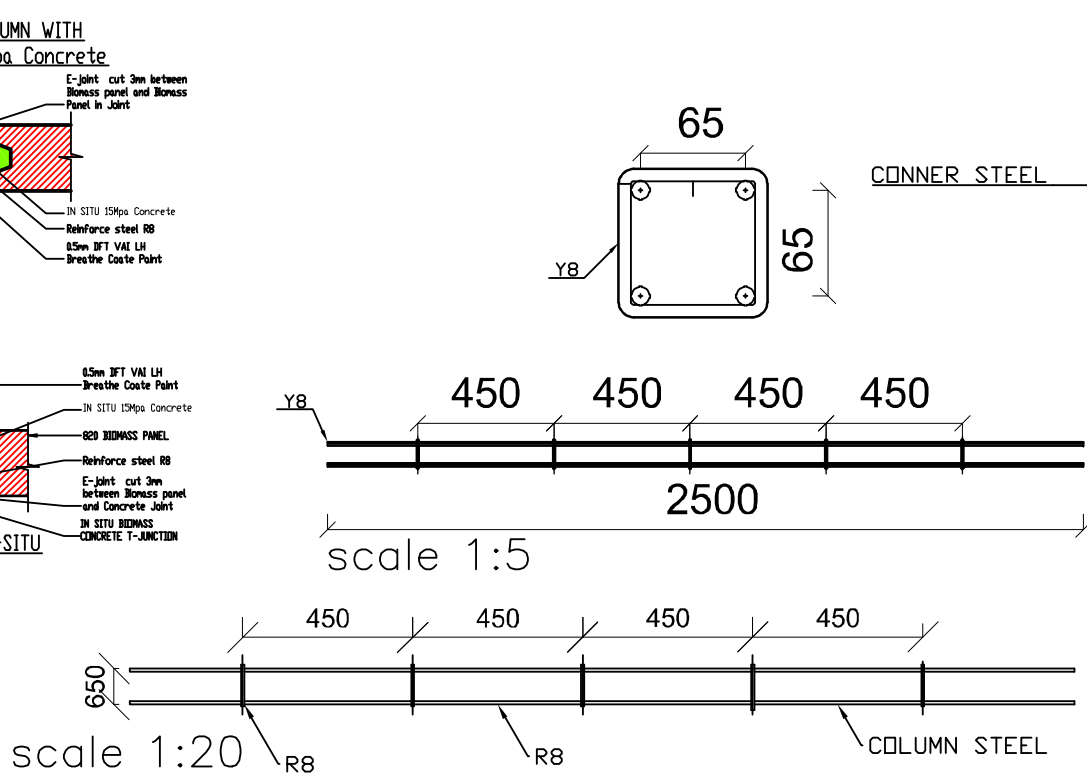
S-JOINT COLUMN WITH IN-SITU 15Mpa CONCRETE
scale 1:15



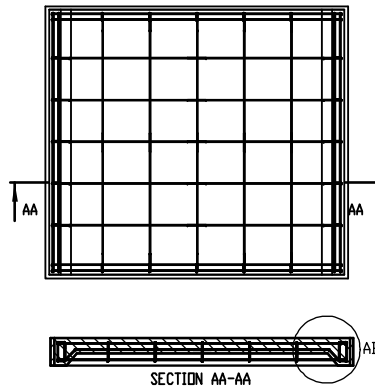
L-COLUMN WITH IN-SITU 15Mpa CONCRETE IN STEEL FORMWORK
scale 1:15



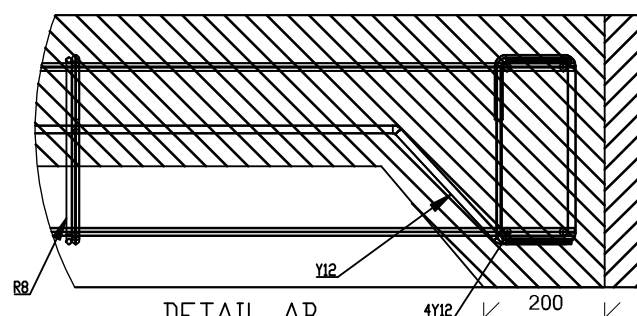
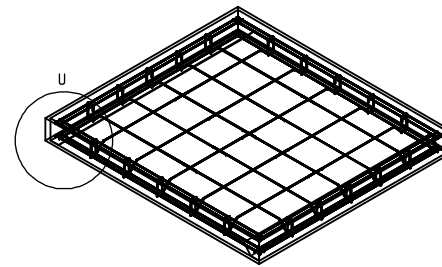
T-COLUMN WITH IN-SITU 15Mpa CONCRETE
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scale 1:20



DETAIL U
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DETAIL AB
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DEW SYSTEM NOTE:
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DRAINAGE NOTES:
RE's to all changes in direction of soil pipes. RE's to all bends & junctions. Reseal trays to all waste fittings. Waste pipes are to be entirely accessible along entire length. Bends & junctions are not to be located under the building. Soil pipes located under building to be protected from load. All work to comply with Local Authority by-laws.

Pipe sizes: 160mm
110mm w/b 50mm
110mm sink 50mm

COMPLIANCE NOTES - SANS 10400 - A:2010 Edition - refers:

FORMWORK, STRUCTURE AND CLADDING:
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PROTECTION:
prototype Biomass Insulated Concrete tested in accordance with SANS 101077-2 Fire testing of materials and complies to Agrima 2018-578. Components and elements used in Buildings - Part 2. Fire resistance test for wall elements comply to FR180min and roof slab elements to 60min. Fire protection in accordance with SANS 10400 Part 1: Fire protection and any fire equipment installation and signage in accordance with SANS 10400 Part 1: Installations and Duty 10 based on Rational Fire S. Design.

STRUCTURAL DESIGN:
structure in accordance with SANS 10400 Part B, structural. Subject to the design of the appointed structural engineer.

DIMENSIONS:
accordance with SANS 10400 Part C, Dimensions.

SAFETY:
All site safety requirements remains the responsibility of the contractor and H&S guidelines issued by the representative of the client WOPF must be adhered to and ensure safety around schools and school ablutions. Balustrades in accordance with SANS 10400 Part C, public.

OPERATIONS:
accordance with Agrima Approved LIGHT HOUSE Construction procedure SANS 10400 Part F, site operations

FOUNDATIONS:
Foundations to be in accordance with SANS 10400 foundations and strictly to engineers' designs & specs.
Floors to be in accordance with SANS 10400 Part - Floors.
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The Light House system for School ablutions is erected on a conventional concrete raft foundation that is designed by an approved competent person.
Roofs can either be constructed from in situ and precast concrete material or timber trusses, with light or heavy weight roof cladding.
Walls are either cast in situ, or premade of panels (2400mm high and 820mm wide). The density of the cured biomass concrete mixture is 1100 and 1300kg/m3.
Walls are constructed in thickness ranging from 50mm for internal toilet partitioning walls to 130mm external walls.
External walls must be painted with a 1mm thick VAI-Breathecoat cement base plaster render.

NES CONSULT & ASSOCIATES

NATURAL ENGINEERING SOLUTIONS

Light House School Ablution Project 18023
A program of Dept of Environmental Affairs in Partnership with WRC & DBE

INTELLECTUAL PROPERTY RIGHTS:
- The Light House School Ablution design by DEA
- Intellectual property right is vested in DEA
- Working On Fire through VAI is the implementing agent
- All contractors, service providers & appointments will require NDA & warrant agreement for use of this Agrima 2018/578 approved process of construction
- WOPF/VAI will have the right to withdraw any process

Design: CA Gaidike CAD20201
NBS Arch. A.J. Odofe 810478
ES Str. Eng. W. ESTERHUIZEN
NES Proj. Eng. D. OOSTHUIZEN

PROJECT: NEW ABLUTION BLOCK
EMAZINI SENIOR PRIMARY
MALUTI
EASTERN CAPE

CLIENT:
WORKING ON FIRE (PTY) LTD.

Client Signature

DATE: Sept, 2019 SCALE: see plan
PROJECT No. 18023-EC/A19P-D/51 TITLE: see plan
SHEET No. 1 of 4 REVISION No. DRAFT 02

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**BASELINE HEALTH & SAFETY RISK ASSESSMENT AND
PROJECT HEALTH & SAFETY SPECIFICATIONS
DOCUMENT**

CONTRACT:

**CONSTRUCTION OF NEW ABLUTION BLOCKS AT
VARIOUS SCHOOLS AS PART OF THE
MTHATHA CLUSTER 7
PROJECT**

Date: September 2019



FOREWORD

These health & safety specifications have been compiled in terms of the Occupational Health & Safety Act no. 85 of 1993 and its Regulations as amended, in particular the Construction Regulations 2014.

It must be clear that this document is a management tool and should be used by the Principal Contractor and Contractors in order to comply with the aforementioned Act and regulations.

Should there be any contradiction between this document and the Act, the Act must take preference except where explicitly stated.

Similarly where this document is silent on a specific health & safety requirement, the Act must be used as the minimum requirement.

Should you be unclear about anything set out in this document, please contact this office.

Ensuring you of our best intensions and service at all times.

A handwritten signature in black ink, appearing to be 'Marius Eppenberger'.

Marius Eppenberger
Construction Health and Safety Agent (Pr.CHSA 034/2016)

The first mention of Occupational Safety can be found in the Old Testament:

Deu 22:8 "When thou buildest a new house, then thou shalt make a battlement for thy roof, that thou bring not blood upon thine house, if any man fall from thence."



HEALTH AND SAFETY SPECIFICATIONS FOR

Project: Construction of new ablution blocks at various schools as part of the Cluster 7, Mthatha project

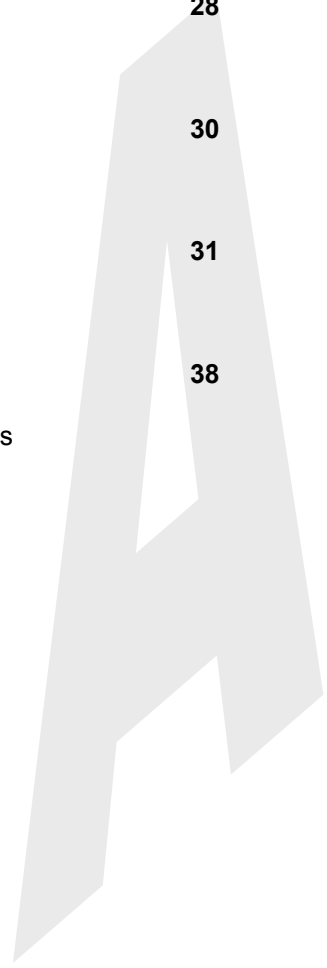
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1. INTRODUCTION AND BACKGROUND

1.1 Background to the Health and Safety Specifications (also termed These Specifications)

The Construction Regulations places the onus on the Client to prepare a baseline risk profile and health & safety specifications highlighting hazards not successfully eliminated during design. The Client also has the opportunity to set the tone and standard of occupational health & safety on the construction site.

1.2 Responsibility and Accountability

It is imperative to understand the process of determining legal accountability as the OHS Act is the only criminal Act still administered by the Department of Labour. It *assumes* that the CEO is overall accountable even though he/she may delegate some of his/her responsibilities. This principle is entrenched in Section 37(1) of the Act and is set out below for your benefit. This is generally referred to as the REASONABLE MAN TEST.

SECTION 37: Acts or omissions by Employees or Mandataries

- (1) Whenever an employee does or omits to do any act which it would be an offence in terms of this Act for the employer of such employee or a user to do or omit to do, then, unless it is proved that -
 - (a) in doing or omitting to do that act the employee was acting without the connivance or permission of the employer or any such user;
 - (b) it was not under any condition or in any circumstance within the scope of the authority of the employee to do or omit to do an act, whether lawful or unlawful, of the character of the act or omission charged; and
 - (c) all reasonable steps were taken by the employer or any such user to prevent any act or omission of the kind in question, the employer himself shall be presumed to have done or omitted to do that act, and shall be liable to be convicted and sentenced in respect thereof; and the fact that he issued instructions forbidding any act or omission of the kind in question shall not, of itself, be accepted as sufficient proof that he took all reasonable steps to prevent the act or omission.

1.3 Purpose of the Health and Safety Specifications

The purpose of the H&S specifications document is to assist in achieving compliance with the Occupational Health & Safety Act 85/1993 (OHS Act), its Regulations and the Construction Regulations (CR's) in order to prevent or as far as possible reduce incidents and injuries. **Note that the CR's 2014 were promulgated on the 7th February 2014 and are enforceable on this project.** These specifications should act as the basis for the drafting of the Principal Contractor and Contractors' construction phase health & safety plans.

The health & safety specifications document sets out the requirements to be followed by the **Principal Contractor and its sub-contractors, as well as any Direct Contractors that might be appointed** with the aim that the health & safety of all persons (including the public) potentially at risk may receive the same priority as other facets of the project e.g. cost, programme, environment, and quality.

1.4 Implementation of the Health and Safety Specifications (Drafting of the Contractors' Health & Safety Plans)

This health & safety specifications document forms an integral part of the contract and the **Principal Contractor and its Contractors** appointed are expected to make use of it when compiling their project-specific construction-phase health & safety plans. The Principal Contractor must forward a copy of these specifications to all Contractors at their bidding stages so that they can in turn prepare health & safety plans relating to their specific operations.

2. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM ELEMENTS

2.1 Scope of the Project

These Specifications set out the requirements for eliminating or if this is not possible, for minimising as far as reasonably practicable, the risk of incidents and injuries occurring **during the construction of new ablution blocks at various schools as part of the Cluster 7, Mthatha project for the Department of Environmental Affairs. The works will involve the construction of a single story ablution block inclusive of all associated works e.g. plumbing, earthworks for foundations, civils works, trenching for new services, renewable energy systems, roof work, etc.**

The health & safety specifications document includes an identification of dangers and hazards by the appointed H&S Agent as well as public protection protocols e.g. work within the confines of existing schools, and specific construction related minimum safety and health requirements, control measures and procedures which need to be taken into account when: pricing the project; programming your activities and trades; compiling your project-specific health & safety plan; compiling your preliminary risk assessment document; producing activity-specific health & safety risk assessment documentation; and managing health & safety on the project in question.

The Health & Safety Specifications document must also be taken into account by the Designers as defined in the Construction Regulations 2014.

The scope also addresses legal compliance, hazard identification and risk assessment, risk control, and the promotion of a health and safety culture for those personnel working on the project. The health & safety specifications also make provision for the protection of those persons other than employees i.e. site visitors and members of the public.

2.2 Interpretations

2.2.1 Application

This specifications document is a legal compliance document compiled in terms of the OHS Act and is therefore binding. The document must be read in conjunction with other relevant legislation including: **The Occupational Health & Safety Act 85/1993; Construction Regulations 2014; all other Regulations and Codes incorporated into the OHS Act; the civil engineers' specifications documents, drawings, notes and guidelines; project tender documentation; all other relevant guidelines and best practise notes.**

2.2.2 Definitions

The definitions as listed in the OHS Act 85/1993 and Construction Regulations (2014)

- CHSA = Construction Health & Safety Agent
- Contractor includes a Principal Contractor / Direct / Sub-contractors.
- Contractor's Construction Manager as defined in the Construction Regulations 2014 [CR 8(1)] as the Construction Manager. This is not the Client's Project Construction Manager / site representative.
- Direct – Any Contractor appointed directly by the construction Client.
- Principal Agent = P/Agent = Client Representative.
- Principal Contractor will include any Direct appointed on the project.
- Where the term Principal Contractors (plural) is used this refers to all Directs appointed on the project, which Directs are all Principal Contractors in their own right.
- Project Manager will mean the person designated to the project and who represents the Principal Agent / Client / Owner.

2.3 Minimum Administrative Requirements

2.3.1 Notification of Intention to Commence Construction Work & Construction Work Permit

The Principal Contractor must notify the Provincial Director of the Department of Labour in writing before construction work commences. A copy of this notification (Annexure 2) must be held in the Principal Contractor's health & safety file on site. The notification of construction work must be e-mailed to: **the local office of the Dept. of Labour**. The P/Contractor must ensure that a reference number or similar confirmation of receipt is available as proof of notification. Notification is required to be done at least seven days prior to commencement on site. **No construction work permit will be required as the contract in question is well below the R40 mil trigger value and won't run for longer than 365 days or 3600 person days.**

2.3.2 Assignment of the Principal Contractors' / Contractors' Responsible Persons to Manage, Supervise and Co-ordinate Health and Safety on Site

The Principal Contractor must make supervisory appointments as well as other relevant appointments in writing (as stipulated by the OHS Act and Construction Regulations). See attached **Annexure 'B'** for more detail on which health & safety management appointments are relevant on this project.

2.3.3 Competence of the Principal Contractors' / Contractors' Appointed Competent Persons

The Principal Contractor and Contractors' competent persons for the various risk management portfolios must fulfil the criteria as stipulated in terms of the definition 'Competent Person' in accordance with the Construction Regulations. These persons must also have a knowledge of the OHS Act and relevant Regulations.

2.3.4 Compensation for Occupational Injuries and Diseases Act 130 of 1993 (COIDA)

The Principal Contractor must have in its possession a letter of good standing issued by its Compensation Assuror as proof of registration. Contractors must also hold proof of workman's compensation assurance registration in the form of a letter of good standing and forward a copy to the Principal Contractor before they begin work on site. Contractors must be in good standing at all times while carrying out work on site.

2.3.5 Preliminary Hazard Identification and Risk Assessments (HIRA's), Activity-Specific Risk Assessments, and Risk Assessment Reviews

The Principal Contractor must cause preliminary hazard identification and risk assessments to be performed under the leadership of a competent person before commencement of its construction work on site. **The preliminary risk assessment document must be submitted together with the Health & Safety Plan and must cover at least the activities foreseen during the first month of construction.**

Note that the CHSA has carried out an assessment of the foreseen hazards associated with the works in question and has set out this information in annexure 'F' herein below.

The assessment of the risks associated with each hazardous activity identified by the contractors must be conducted by making use of a recognised risk rating system/programme. The risk assessments must include:

- a) A list of hazards identified as well as potentially hazardous tasks;
- b) The risk of incident or injury for each hazards and/or task (the risk is merely a rating);
- c) A set of safe work procedures to be implemented with the aim of eliminating or if this is not possible, reducing and/or controlling the hazards as far as reasonably practicable;
- d) A monitoring and review procedure of the risk assessments as they change i.e. how will the risk assessments be reviewed and up-dated, when will they be reviewed, and by whom.

Contractors must conduct their own hazard identifications and risk assessments specific to their operations and forward copies to the Principal Contractor for assessment and acceptance. The Principal Contractor when required must report on the status of its Contractors' risk assessments to the Client/H&S Agent at monthly audits or more often as the case may be.

The Principal Contractor must ensure that contractors inform, instruct and train their workers regarding any hazards, the associated risks and the related safe work procedures to be implemented before any work

commences and thereafter at regular intervals as the risks change and as new risks develop. Contractors must conduct their own risk assessment training and keep proof in the form of attendance registers.

2.3.6 General Record Keeping

The Principal Contractor must keep and maintain all the necessary Health and Safety records to demonstrate compliance with these Specifications, with the OHS Act 85/1993, and with the Construction Regulations. The Principal Contractor must also ensure that all records of incidents/injuries, emergency procedures, training, planned maintenance inspections, monthly contractor audits, etc. are kept in the health & safety file(s) held in the site office. The Principal Contractor must also ensure that its Contractors keep their own health & safety files, maintain the files and make them available on request (the file must include the Contractor's health & safety plan and all relevant records). **Such 'Contractor health & safety files' must be audited by the Principal Contractor every 30 days with audit reports kept as proof.**

2.3.7 Injury / Incident Reporting and Investigation

Injuries are to be categorised into first aid; medical; disabling (lost day); and reportable (Section 24). When reporting injuries to the Client/H&S Agent, these categories must be used. The Principal Contractor must investigate all injuries, with an annexure 1 investigation report being completed and filed for all injuries requiring treatment over and above first aid. The Principal Contractor must report on the 4 categories of injuries at monthly project progress meetings. Contractors must investigate injuries and incidents involving their employees and forward a copy of the 'annexure 1' investigation report to the Principal Contractor concerned forthwith. The Principal Contractor must report all injuries to the Client/Safety Agent in the form of an injury report, at least monthly (at audits). **Disabling injuries must be brought to the attention of the CHSA on the day of the injury.**

All incidents reportable in terms of the provisions of Section 24 of the OHS Act must be reported to the local Dept. of Labour in the prescribed manner.

2.3.8 Consolidation of Health & Safety Documentation

It is the duty of the Principal Contractor to ensure that all documentation required to be kept or generated during the construction stage is consolidated into one set of documents that must be handed over to the Client upon completion of the construction work.

These consolidated health & safety file(s) should include all instructions/guidelines/specifications/information from the design team that will be required for the continued safe operation and maintenance of the new structure(s) and buildings or part(s) thereof.

2.3.9 Offences and Penalties

Penalties may be imposed on the Principal Contractor and Contractors for ongoing non-compliance with the provisions of the Client's health & safety specifications, the Principal Contractor's health & safety plan, and site health & safety procedures and rules, including: **Consultants' rules, procedures, and specifications; Client and CHSA-specific rules/protocols. The P/Contractor can also impose penalties on its sub-contractors and on other Directs within its area of responsibility.** Non-compliances identified during CHSA audits, inspections, surveys and visits will be categorised into one of four levels based on frequency of incident and severity of incident. These will be as follows:

1. **Life threatening situation** - a prohibition notice/order will be issued by means of a written instruction in the site instruction book or an explanation/detail in an audit report/e-mail. The activity in question must then be seized immediately and corrective measures taken to the satisfaction of the H&S Agent after which permission will be given to resume the activity.
2. **Injury foreseen** – a contravention notice will be issued by means of a written instruction in the site instruction book or an explanation/detail in an audit report/e-mail with a time frame for compliance stipulated. Failure to comply within the time frame may result in up to a R1000 penalty per non-compliance item per day that the non-compliance persists. Ongoing non-compliance may also result in a further issue of a prohibition notice/order.
3. **Ongoing contravention for similar non-compliances** - a contravention notice will be issued with a time frame for compliance stipulated. Failure to comply within the time frame may result in up to a R1000 penalty per non-compliance item per day that the non-compliance persists. On-going non-compliance may also result in a further issue of a prohibition notice/order.

4. **Minor or no injury foreseen** – an improvement notice will be issued. The corrective measures stipulated in a written instruction in the site instruction book or an explanation/detail in an audit report/e-mail must be taken.

2.4 **Principal Contractor, Contractors and Sub-contractors**

2.4.1 **Principal Contractor's and Contractors' Requirements**

The Principal Contractor must ensure that all Contractors appointed by it comply with these Specifications as well as with the OHS Act, the Construction Regulations, and other relevant legislation including project-specific rules and guidelines documentation that may relate to the activities directly or indirectly. A Contractor when appointing other Contractors as 'Sub-contractors', shall mutatis mutandis ensure compliance as if it was the Principal Contractor.

The Principal Contractor may only allow a Contractor to begin work on site after receiving a suitable health & safety plan which must include a project-specific hazard identification, risk assessment and safety & health procedures documentation. The Principal Contractor must audit each of its contractors at least every 30 days, with audit reports kept in the health & safety file on site. **The audit must include an administrative assessment of H&S documentation as well as a physical inspection of the contractor's site activities and operations.**

A Principal Contractor must stop any Contractor from carrying out construction work that is not in accordance with the Principal Contractor's and/or its Contractor's health & safety plan or if there is an immediate threat to the health and safety of persons.

- A Principal Contractor shall take all reasonable steps necessary to ensure co-operation between all contractors including other Principal Contractors to enable each of those contractors to comply with the provisions of the Construction Regulations;
- A Principal Contractor shall take all reasonable steps to ensure that each contractor's health and safety plan is implemented and maintained on the construction site: Provided that the steps taken shall include periodic audits at intervals mutually agreed upon between the Principal Contractor and contractors, but at least once every month;
- A Principal Contractor must ensure that where changes are brought about to the design and construction, that sufficient health and safety information and appropriate resources are made available to contractors so as to allow them to execute the work safely;
- A Principal Contractor must ensure that every contractor is registered and in good standing with a recognised compensation fund or with a licensed compensation insurer prior to work commencing on site;
- A Principal Contractor must ensure that potential contractors submitting tenders have made provision for the cost of health and safety measures during the construction process;
- A Principal Contractor shall discuss and negotiate with the contractor the contents of the health and safety plan and shall finally approve that plan for implementation;
- A Principal Contractor shall hand over a consolidated health and safety file to the client upon completion of the construction work and shall include a record of all drawings, designs, materials used and other similar information concerning the completed structure;
- A Principal Contractor may only appoint a contractor to perform construction work when such Principal Contractor is reasonably satisfied that the contractor he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely.

2.4.2 **Principal Contractor / Contractor Competency Assessment**

The Principal Contractor must be reasonably satisfied that the contractors it intends to appoint have the necessary competencies and resources to safely conduct the work they will be appointed for. This should be established at tender stage and before appointments are made. One of the preferred ways of determining whether a contractor is competent is to ask for a previous safety plan as compiled for another similar project. Once the contractor is appointed, but before it begins work on site a site-specific safety plan must be discussed and negotiated with the Principal Contractor. Such health & safety plan must be approved for implementation by the Principal Contractor.

2.4.3 Pricing for Occupational Health & Safety Compliance

All parties bidding for work on this construction project must ensure that they have made provision for the cost of complying with this Specifications document as well as with the OHS Act and incorporated Regulations as a minimum requirement in their tender documentation. It must also be taken into consideration that time is money, implying that sufficient time must be allowed for the implementation of the minimum OHS standards. No additional claims will be entertained at a later stage should a compliance requirement be prescribed in the OHS Act, incorporated regulations or in this Specifications document unless due to design changes which would require additional resources.

Designers are also required to issue a written report setting out the health and safety information about the design of the relevant structures that may affect the pricing of the construction work. Such reports must be issued before tender and included in such tender document.

2.4.4 Contractors' Health & Safety Plans

1. Introduction:

- The Construction Regulations aims to improve overall management and co-ordination of Health, Safety and Welfare throughout the Construction Stage and reduce the large number of serious and fatal injuries and cases of ill health which occur every year in the Construction Industry.
- In terms of the Construction Regulations, a Principal Contractor is required to develop a Health and Safety Plan before work commences work and review it throughout the construction phase. The degree of detail required in the Health and Safety Plan and the time and effort in preparing it should be in proportion to the nature, size and level of Health and Safety risks foreseen on the project. Projects involving minimal risks will call for simple, straightforward H&S Plans.

2. What should the construction health & safety plan cover?

The Construction Health and Safety Plan should set out the arrangements and procedures for ensuring the Health and Safety of personnel carrying out the construction work as well as other persons who may be affected by such work.

The health & safety plan should set out:

- The **project-specific preliminary risk assessments** taking into account the CHSA's baseline HIRA and must **cover at least the first month's activities**;
- The arrangements and procedures for managing Health and Safety of the construction work including supervision and safety officer involvement.
- The safety officer duties.
- The monitoring systems for checking that the Health and Safety Plan and H&S procedures are being properly followed by the P/Contractor and Contractors.
- The Health and Safety Risk Assessment strategy and rating system to be used on this project including the activity look-ahead strategy.
- Safe work procedures for minimising the risks posed by the hazards identified.
- Special attention must be given to: **public protection health & safety measures in line with the requirements of the Dept. of Education (the works will be located within the confines of existing schools which are utilised by members of the public in the form of school learners, staff, and visitors to the schools)**; site demarcation and access control; safety signage; identification of existing underground services; waste/spoil control and removal; delivery of materials including precast biomass panels to site; public roadway and walkway management and cleaning; excavations and trenching; small plant, construction equipment, and portable electrical equipment used for construction work; biomass mixing, formwork of biomass structures, scaffolding for single level structures, electrical installations and temporary electrical supply for construction activities, roof work.
- Regular liaison between parties on site i.e. sub-contractor meetings; information sessions; etc.
- Consultation with the work force i.e. H&S inductions; toolbox talks; risk assessment training.
- The exchange of design information between the Client, Designers, and Contractors on site.
- Selection and control of Contractors i.e. selection criteria; inspections; audits, etc.
- Site health & safety induction and on-site training i.e. inductions; toolbox talks.
- Welfare facilities, first aid, emergency planning and fire prevention strategies.

- The reporting and investigation of injuries and incidents including near misses i.e. what the intended system will be.
- Site specific rules and procedures including the company disciplinary code – enforcement of discipline on site (P/Contractor personnel and sub-contractor personnel).

The Health and Safety Plan will then need to be reviewed and updated as the project develops, as information becomes available pertaining to new risks and as information becomes available from the Contractors carrying out specific activities on your behalf. Unforeseen circumstances or variations to planned work may also arise and must be dealt with by reviewing the health & safety plan (and activity-specific risk assessments) and updating the health & safety procedures set out in the H&S Plan (and risk assessments).

2.4.5 Contractors' Health & Safety File(s)

Such Files must contain at least the following documentation / records:

- H&S Plan, risk assessments, HIRA look-ahead programmes, fall protection plan;
- Notification of Construction work and copy of construction permit where applicable;
- Copy of the OHS Act and relevant Regulations;
- Emergency plan and telephone numbers;
- H&S induction records (including visitor inductions), HIRA training, H&S information session records (toolbox talks);
- Management appointments and management organogram for the project (latest update);
- Proof of competence – various personnel and operators;
- Inspection registers – various project-specific planned maintenance inspections;
- Injury and incident investigation reports and first aid dressing book;
- Safety officer inspection reports;
- Audit reports – monthly audits of sub-contractors;
- Sub-contractor H&S Plan assessments and approvals by the P/Contractor;
- Material safety data sheets – haz chem.;
- PPE issue records;
- Medical assessment certificates – workers;
- Disciplinary records and unsafe act/condition warning notices issued.

2.5 Client identified Hazards and Potentially Hazardous Situations

2.5.1 H&S Agent-identified Hazards / Hazardous Activities

The following items have been identified by the H&S Agent as potential hazards for this construction project and must be incorporated in the Principal Contractors' and Contractors' health & safety plans where applicable to that contractor's work. **Note that these hazards/activities do not include the usual hazards/activities which should be foreseen by the specific Contractor(s) involved.**

1. Public protection and access routes for the public using the various **schools' premises** during construction.
2. The management of construction materials including stacking and storage of such materials and equipment **which could include pre-cast biomass panels** and similar.
3. Detection, identification and location of existing underground electrical services and other services which could be impacted during construction work.
4. Trenching and earthworks associated with the **various ablution blocks' construction.**
5. Possible excavation work for **bladder digester tank and grey water treatment tanks.**
6. Civil works – including layer works, paving, and asphaltting.
7. **Use of formwork and associated support work equipment for use during the casting of biomass panels in-situ.**
8. Mobile plant (rollers and d/loaders) and small plant such as petrol generators and **biomass mixing plant.**
9. Lifting machines, equipment, tackle – potential of the use of truck-mounted crane when carrying out deliveries to site e.g. **pre-cast biomass panels, pallets of biomass mix**, etc.

10. Temporary electrical installations during the construction stage – builders supply from existing electrical installation **at the schools**.
11. The installation and testing of the new electrical installation and associated equipment **to the new ablution facilities**.
12. The use of portable electrical tools such as angle grinders, cut off saws, and electrical extension leads.
13. Hazardous chemical substances such as: petrol and shutter oil.
14. Noise and dust during construction activities.
15. Waste management and removal.
16. Scaffolding – single level up to 2.5m in height.
17. Use of extension ladders and step ladders.
18. **Roof work where a steel roof** could be installed.
19. Work on **biomass roof panels** where such is installed.
20. Exposure to **untreated sewer effluent** during snagging and final completion.

These hazards should be used as a starting point by the Principal Contractor and its Contractors so as to elaborate on their own hazard identifications and risk assessments in terms of Section 8 of the OHS Act and General Safety Regulations 2(1).

2.5.2 Unforeseeable Hazards

Principal Contractor must immediately notify Contractors as well as the Client/Safety Agent, in writing, of any hazardous or potentially hazardous situations that may arise during the performance of construction activities so that the necessary precautions may be taken before such work begins.

2.6 Site Operational Requirements

2.6.1 Health and Safety Training

2.6.1.1 H&S Induction

The **Principal Contractor will need to ensure that all site personnel including all Contractors undergo a site-specific health & safety induction training session before any worker starts work on the project (termed a 'site-wide' H&S induction session)**. A record of attendance must be kept in each contractor's health & safety file. Note that all contractors also need to induct their own personnel as to their activity-specific hazards, risks and safe work procedures.

2.6.1.2 Awareness

The Principal Contractor must ensure that, on-site, periodic toolbox health & safety talks take place at least once every fortnight or more often depending on the particular contractor's risk assessment programme requirements. All site personnel including all sub-contractors must attend health & safety talks at such intervals and keep proof thereof. These talks should deal with risks relevant to the construction work at hand i.e. they should be based on the job-specific risk assessments and safe work procedures. Records of attendance must be kept in the health & safety file. All contractors' employees must attend health & safety awareness toolbox talks carried out by their own supervisors, the attendance registers must be copied to the Principal Contractor together with information on the topics/risks discussed at the session.

2.6.1.3 Competence

All competent persons must have the knowledge, experience, training, and qualifications specific to the work they have been appointed to supervise, control and/or carry out. This must be assessed on a regular basis e.g. training, evaluation, periodic audits, progress meetings, etc. Principal Contractors are responsible to ensure that Competent Contractors are appointed by them to carry out construction work on site.

2.6.2 Health & Safety Audits, Monitoring and Reporting

The Principal Contractor is obligated to conduct monthly health & safety audits on all Contractors appointed by it and keep audit reports available in its health & safety file. Contractors have to audit their sub-contractors and keep records of these audits in *their* health & safety files, made available on request. The H&S Agent will conduct monthly audits on the Principal Contractor's health & safety management plan to ensure that contractors are working in accordance with the agreed safety & health requirements/procedures. Refer to attached **Annexure 'C'** for more details regarding these audits. Further site inspections and visits will also take place.

2.6.3 Medical Fitness of Personnel

Contractors must ensure that all personnel (previously CR 2003 stated: workers working at heights, crane operators, construction vehicles and mobile plant, and workers using cradles) undergo medical fitness assessments. Such assessments must be conducted by a **certified occupational health practitioner** as required by the Construction Regulations. Should a questionnaire be used as an assessment tool then such questionnaire must be administered by a **certified occupational health practitioner**.

Proof of these medical fitness assessments must be available on site in the site H&S file.

Note that the CR's 2014 require all Contractor personnel to undergo medical assessments based on the work they undertake (not merely work in elevated positions).

2.6.4 Emergency Procedures (Specific to the School in Question)

The Principal Contractor must prepare an Emergency Procedure prior to commencement on site. The procedure/plan must take into consideration the risks and potential incidents posed by work to be carried out on this project. The procedure must detail the response plan including the following key elements:

- List of key competent personnel;
- Details of emergency services;
- Actions or steps to be taken in the event of the specific types of emergencies;
- Rescue plans including access of emergency personnel to injured person.

Emergency procedure(s) must include, but shall not be limited to: fire; injury to employees; damage to material/equipment/plant; use of hazardous substances; bomb threats; major incidents/injuries; public violence and unrest; violent crime; etc. The Principal Contractor must advise the Client in writing forthwith, of any emergency situations, together with a record of action taken/action to be taken. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc.) must be maintained and made available to site personnel. The emergency plan may need to be reviewed from time to time as conditions/environment changes.

2.6.5 First Aid Management

All Contractors with more than 5 employees shall supply their own first aid box. Contractors with more than 10 employees must have their own trained, certified first aider on site at all times. **The Principal Contractor will however need to have a first aid box together with splints, eye wash and a burn kit available in its office or other suitable place on site (school specific). A first aider will be required to be available on site as soon as the total workforce exceeds 10 inclusive of sub-contractor personnel (school specific).** Copies of valid certificates are to be kept on site. The Principal Contractor must ensure that any contractor working after hours has the necessary first aid and first aider on duty.

2.6.6 Personal Protective Equipment (PPE) and Clothing

Contractors must ensure that all site workers are issued with and wear the appropriate PPE as indicated in their risk assessments. The Contractors must make provision and keep adequate quantities of SANS approved PPE on site at all times according to their risk assessments.

Eye protection must be worn by those working angle grinders, skill saws, high pressure water cleaners and the like. Even those workers in close proximity to these operations will also be required to wear such eye protection. Roofing personnel should be issued with UV rated eye protection due to glare from steel roof sheets.

Hard hats will be required by those working in areas where there is a risk of head injury due to falling/striking objects. **It will be required that the site be declared a hard hat zone due to overhead work taking place from time to time e.g. truck-mounted crane, formwork, scaffolding, work on ladders, roof work.**

Safe footwear will be required as decided upon after a risk assessment has been carried out by the respective contractor **e.g. during offloading of materials and equipment by means of a truck-mounted crane.**

Hand protection must be taken into consideration when assessing the risks associated with certain activities with the aim of minimising the risk of hand injuries.

Hearing protection is required where noise zones are envisaged and/or where activities emit noise higher than 85dB(A) **e.g. angle grinder and cutting of steel, roof sheets, concrete or biomass, core drilling through biomass, and the like.**

Respiratory protection is required during activities where dust and other airborne vapours/gases/fibres are emitted **e.g. biomass product, dry mix.**

High visibility vests will have to be worn by contractors working in close proximity to construction vehicles and mobile plant. **This is not foreseen as being a requirement on this project.**

Visitor PPE must be available in the site office and must be decided upon by the P/Contractor specific to the works undertaken at the time.

2.6.7 Site Demarcation and Access Control

All construction work must be adequately demarcated with controlled access points provided and sign-posted, preventing access to unauthorised persons. **The work will be limited to single level construction up to a height of 2.5m. The use of 1.8m fencing is required to enclose all construction work due to the works being within the confines of operating schools. Safety awareness signage will need to be posted up at entrances to the sites and at suitable intervals on the fencing warning persons to 'stay out due to construction dangers'.**

Contractor access to the construction site will be limited to the **specified access routes as agreed with the Client** and must be strictly enforced by the **P/Contractor**.

All access points to site must carry the necessary signage and site manager's contact number.

The Client and its agents reserve the right to search and scrutinise all persons, bags, toolboxes, and vehicles at any time. Personnel must obey any and all security instructions at all times.

2.6.8 Occupational Health and Safety (OHS) Signage

H&S notices and signs should include but not be limited to: 'construction work - no unauthorised entry', 'report to site manager', 'beware of excavations'; 'beware of mobile plant and vehicles' – to be posted up at all entrances to construction work zones. Signage must also be posted up at strategic locations to warn the public of any temporary diversions, alternative through-ways and other irregularities caused by the construction work. Health & safety signage must be well maintained including weekly inspections, cleaning, replacement and repair. The first aid station must be clearly sign-posted and must be visible from outside the office container housing the first aid equipment.

2.6.9 Public and Site Visitor Health & Safety

Public walkways and roadways must be kept clean and free of construction materials so as to prevent any negative impact to the public. Public roadways and walkways will have to be cleaned on a regular basis – daily inspections to be conducted by the Principal Contractor with action to be taken without delay (daily). No loading/offloading or other construction activities may take place outside the designated construction site unless authorised by the Client's P/Agent.

This works will be located in existing school premises which are utilised by the public including school learners. Public protection will therefore have to remain a priority throughout the construction stage.

Site visitors must be briefed on the hazards they may be exposed to as well as what measures are in place or should be taken to minimise these hazards. The Construction Regulations require that a record of these 'inductions' be kept on site. **It will be the duty of the Principal Contractor to manage all 'site-wide' H&S inductions including site visitors.**

2.6.10 Construction Health & Safety Officer(s)

The **Principal Contractor will need to appoint at least a part-time *health & safety officer* (in terms of Construction Regulation 8.5) which safety officer will need to visit site once every fortnight. All sub-contractors need to appoint part-time safety officers who will need to spend time of site as discussed, negotiated and agreed between such subbie, the P/Contractor, and the CHSA. It is envisaged that on this project, sub-contractor safety officers may only need to visit site once a month based on the relatively low complexity of the works. The CHSA does however reserve the right to increase the time allotment of subbie safety officers, based on ongoing poor performance of a sub-contractor(s).**

The following **health & safety officer related duties** will be required to be carried out:

- a) Health & safety audits and inspections including administrative and physical audits of all Contractors' health & safety plans, files and activities, and record findings in the form of audit reports to be kept in the health & safety file;
- b) Fortnightly inspection reports (P/Contractor safety officer) – site hazard survey findings recorded and actions taken recorded. Monthly safety officer inspection reports by subbie safety officers;**
- c) Assess, and finally approving sub-contractor H&S plans;
- d) Maintain and co-ordinate the Principal Contractor's health & safety management plan and file;
- e) Investigate near misses, incidents and injuries;
- f) Co-ordinate the function of reviewing the hazard identifications and risk assessments;
- g) Assisting with method statements and safe work procedures and checking whether the responsible persons follow these safe work procedures;
- h) Enforcing discipline on the site and checking on compliance with safety procedures, standards and rules;
- i) Co-ordinating health & safety induction training and two-weekly safety awareness sessions;
- j) Implement and enforce the site hot work permit system;
- k) Ensure that public protection protocols are adequate and well maintained;
- l) Conduct planned job observations to check whether workers are carrying out activities in accordance with the safe work procedures;
- m) Fire risk assessments and enforcement;

The appointed H&S Officer will need to be competent in terms of training, experience, knowledge of construction and health & safety and will need to be registered with the SACPCMP.

2.7 Physical Requirements

2.7.1 Earthworks, Civil Works, Trenching

No deep excavations are foreseen and works will be limited to earthworks and trenching for the foundations of a single storey ablution facility and associated plumbing and recycling structures/equipment.

Where excavations are required, the following must be ensured:

- Ascertain as far as is reasonably practicable, the location and nature of electricity, water, or other similar services which may in any way be affected by the work to be performed.
- Cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or where the safety of persons may be endangered, to be -
 - (i) Adequately protected by **1.8m high fencing**.
 - (ii) Provided with warning illuminants or any other clearly visible boundary indicators at night or when visibility is poor adjacent to a roadway;
 Cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

2.7.2 Deliveries, Waste Removal, Stacking/Storage of Materials

The Principal Contractor and other relevant contractors must ensure that there are appointed stacking supervisors and all materials, plant and equipment is stacked and stored safely on the site. No construction materials or equipment may be stacked or stored in public areas unless authorised by the client and fenced off as per the client's requirements. Waste materials must be kept within designated construction zones and removed on a regular basis. The Principal Contractor will be responsible for co-ordinating and managing this function.

2.7.3 Traffic/Vehicle and Pedestrian Accommodation

The Principal Contractor must ensure that all the necessary traffic/vehicle and pedestrian accommodation safety measures are taken into account to ensure the safety of personnel and members of the public (including site visitors) both on site and adjacent to site. Such measures must be in accordance with recognised practises and to the approval of the Client and the local municipality and traffic authority.

The P/Contractor must place the necessary emphasis on safe pedestrian walkways and routings throughout the construction stage.

2.7.4 Fall Protection / Scaffolding / Working at Fall Risk Positions

Working in a fall risk position includes any work where there is a risk of a person falling. The Principal Contractor must submit a risk-specific fall protection plan in accordance with the Construction Regulations before this work is undertaken. **All personnel working at fall risk positions must be trained on the hazards and safe work procedures and must be able to show the necessary proof of this.**

All scaffolding must comply with the requirements of SANS 10085-2004. Scaffolding must be declared safe for use by a competent scaffold inspector who must complete the scaffold register and tag the scaffold accordingly. All scaffolds must be tagged either 'safe' or 'unsafe'. Inspections must then be carried out weekly, after bad weather, after any alterations, after an incident, and before dismantling. The Principal Contractor must keep all scaffold inspection registers on site. **The Principal Contractor must also appoint one or more of its own supervisory members to supervise/co-ordinate scaffolding on site (scaffold supervisor). All scaffold personnel must be trained – the minimum training must be that of a scaffold general worker as per the requirements of the Scaffold Code 10085-2004.**

Working in fall risk positions requires the preparation of a fall protection plan (FPP). The work specific to this project will be limited to single storey ablution buildings limited to 2.5m in height however a fall protection plan be required due to falls from elevated work positions being a possibility. Contractor FPP's must be compiled, and submitted to the P/Contractor for assessment and final approval well before any elevated work may be undertaken by such contractor. The plan must include all relevant fall related risk assessments and safe work procedures. **All persons working at fall risk positions must be evaluated for physical fitness – such evaluation may only be performed by a certified occupational health practitioner. The Principal Contractor and Contractors must explain their methodologies in this regard in their H&S Plans.** All persons working in elevated positions must be informed of the risks and safety measures (in other words all workers must be trained on the fall protection plan, in the form of a toolbox safety talk) and records of this training/information session must be kept on site.

Where fall prevention or fall arrest devices are being used, the correct devices must be used for the intended purpose and they must be properly inspected and maintained. Workers must be trained in the use and maintenance of the fall prevention and arrest equipment/devices. Safety belts as a method of fall arrest are prohibited. Full body harnesses must be worn. **Where lifelines or other devices are required (such as during roof work), such devices must be detailed in the fall protection plan of the Contractor concerned and approved by the P/Contractor before such work begins. Life lines must be fitted and altered by certificated rope access persons only. Life line inspections will need to be carried out daily with records kept as proof thereof. Workers must have the opportunity to be secured from falling at all times, where there are no edge protection barriers or the like, ensuring 100% fall protection at all times.**

All scaffolding platforms above 2m from the ground must be complete with guardrails and toe boards and must be fully boarded as per the requirements of general-purpose scaffold platforms (5-board platforms). Mobile and static scaffolds may not exceed 3 x their minimum base width in height and must be adequately boarded as per their loading requirement. Mobile scaffolds and static frame towers must be erected as per the

manufacturers' requirements (copies of these erection specifications/data sheets must be available to the scaffold erectors and scaffold supervisor on site). **A copy of the Scaffold Code of practise must be available on site (SANS 10085-2004).**

2.7.5 Roof Work

A roof work safety plan (inclusive of roof supporting structure and roof covering) must be compiled by the roof work and roof supporting structure contractor(s) well before the roof work takes place and must be approved by the P/Contractor before work may begin. Such roof work safety plan must be forwarded to the P/Contractor for assessment and final approval at least two weeks before the roof supporting structure is scheduled to begin. The plan must include the following:

- How the roof work is planned to be erected or worked on;
- What hazards (tasks and tools) are associated with the work;
- That the roof workers are competent (trained, experienced, knowledgeable);
- That no work is carried during inclement weather or where conditions are hazardous to workers;
- That fragile material/areas are demarcated and sign posted;
- That suitable platforms are provided where fragile materials exist;
- Safe access systems/procedures;
- **The safety and health measures need to be implemented to ensure the safety and health of roof workers as well as persons working/having access below the roof work.**

A 100% fall prevention strategy must be implemented and enforced which must include a combination of scaffolding, ladders, safety harnesses, life lines, specified attachment points, safe access, competent personnel, supervision, tool/equipment drop prevention and arrest, etc.

2.8 Plant, Machinery and Equipment

2.8.1 Construction Vehicles & Mobile Plant

“Construction Plant” includes all types of plant including but not limited to, lifting machines, equipment and tackle, earthworks plant, construction vehicles, compaction plant, **small plant such as biomass mixers and petrol generators**, etc.

The Principal Contractor must ensure that such plant complies with the requirements of the OHS Act, Construction Regulations and any manufacturers' specifications. The Principal Contractor must inspect and keep records of inspections on construction vehicles and mobile plant used on site. Only authorised/competent persons in the possession of the necessary **training certificates** and in possession of a **certificate of medical fitness may operate construction vehicles and mobile plant**. Appropriate PPE and clothing must be provided and maintained in good condition at all times.

Reverse alarms and reverse lights must be installed on construction vehicles i.e. trucks, digger loaders, etc. Any vehicle or mobile plant using any public road must be roadworthy and carry a license proving this. Likewise any operator of such construction vehicle or mobile plant will have to carry the necessary driver's license.

2.8.2 Hired Plant and Machinery

The Principal Contractor must ensure that any hired plant and machinery used on site is safe for use and complies with the minimum legislated requirements. The necessary requirements as stipulated by the OHS Act and Construction Regulations shall apply. The Principal Contractor shall ensure that operators hired with machinery are competent and that competency and medical certificates are kept on site in the health & safety file. Any load test requirements and inspections in terms of legislation must be complied with and copies of load test certificates and inspections must be kept in the health & safety file. All relevant contractors must ensure the same when they hire plant and machinery.

2.8.3 Lifting Machines, Tackle and Lifting Operations (Truck-mounted Cranes)

The Principal Contractor must ensure that lifting machinery and tackle are inspected before use and thereafter in accordance with the Driven Machinery Regulations and the Construction Regulations (regulation 20). There must be a **competent lifting machine inspector (registered with the Department of Labour, Gazette**

number 27305) and a competent lifting tackle inspector designated who must inspect the equipment, taking into account that:

- All lifting machinery and tackle has a safe working load clearly indicated;
- Regular inspection and servicing is carried out (3-monthly inspections and records for tackle and 6-monthly inspections and records for lifting machines);
- Records are kept of inspections and of services;
- There is proper supervision in terms of guiding the loads, which includes a trained banks man to direct lifting operations and check lifting tackle and attachments daily;
- Rigging of loads is done in accordance with acceptable safe work practices;
- Annual load test certificates for lifting machines are in place;
- Load test institutions are registered with the Department of Labour;
- Lifting machine inspectors are certified by the Engineering Council of South Africa;
- The operators are certified to operate the specific machine (valid certificate to be on site);
- The operators are physically fit to work and in possession of a medical certificate of fitness to be available on site.
- **No 'sugar/sand blasting grit bags' are permitted on this site. These bags are only designed/permitted to carry sugar/dry sand and may only be used once after which they have to be disposed of.**

2.8.4 Electrical Installations and Portable Electrical Tools

The P/Agent will ensure as far as possible that the P/Contractor is made aware of the positions of all existing underground electrical installations and other services specific to the schools in question. The Principal Contractor must notify the P/Agent should it not be sure of the location of any particular service.

The Principal Contractor and contractors must comply with the Electrical Installation Regulations, the Electrical Machinery Regulations and the Construction Regulations.

The Principal Contractor must keep a copy of the Certificate of Compliance (CoC) for its temporary electrical power supply and installation. A revised CoC is required whenever the installation is altered or changed in any way. All temporary electrical installations must be inspected at least weekly by a competent person appointed in writing with records kept.

Portable electrical tools, extension leads and equipment must be visually inspected daily by a competent person (trained by an electrician or suitable person to carry out visual inspections on electrical tools and extension leads) before use, with records kept as proof. Only authorised, trained personnel may operate such tools as grinders, circular saws, breakers and the like.

The **new permanent electrical installations to the new ablution blocks** must be overseen by a qualified installation electrician. The commissioning and testing of the installation may only be performed by qualified persons under the control of an installation electrician.

2.8.5 Formwork, Support Work, and Back-propping

The Principal Contractor must ensure that the provisions of **Construction Regulation 12** are adhered to. **The appointments of a temporary works designer as well as a temporary works supervisor are required.** These provisions must include but not be limited to ensuring that all design drawings are available on site, that all formwork and support work equipment (**including back-propping**) used is examined for suitability before use (by the supplier) with proof of these inspections forwarded to the hirer/user, that all formwork and support work (including back-propping) **is inspected by a competent person appointed in writing, immediately before, during and after placement of concrete (biomass product in this case) or any other imposed load and thereafter on a daily basis until the formwork and support work has been removed. Records of all inspections must be kept in a register on site held by the Principal Contractor. The designer of temporary supports must inspect the temporary works structures and deem them as per design and then sign them off.** The inspection records must be suitably sequenced and filed for easy reference by the H&S Agent and other interested party.

The necessary formwork deck edge protection guard rails must be fitted before any trade begins work on a formwork deck or related structure. Such guard rail system must be of a recognised/acceptable design and must be suitably strong to carry the lateral force of a person.

2.8.6 Ladders and Ladder Work

The Principal Contractor must ensure that all ladders are: inspected daily before use with monthly records kept; in good safe working order; the correct height for the task; extend at least 1m above the landing being served if an access ladder; fastened and secured in position; and at a safe angle 1:4. Stepladders must be safe for use, must be the **correct height for the task and the top two rungs/steps may not be used. This project may require workers to access a single storey roof so sufficiently long ladders will be necessary allowing for an extension of at least 1m above the roof height.** Records of inspections must be kept in a register on site. Contractors using their own ladders must ensure the same. Take note of the ladder regulation promulgated under the General Safety Regulations. Contractors must undertake activity-specific risk assessments before making use of ladders over 5m in length/height in an effort to ensure that all hazards have been identified and that the necessary safety measures are in place.

2.9 Occupational Health

2.9.1 Industrial Hygiene (exposure to physical and chemical stress factors)

Exposure of workers to occupational health hazards and risks is very common in any work environment, especially in construction. Occupational exposure is a major problem and all Contractors must ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards. Prevent inhalation, ingestion, and adsorption through the skin of hazardous chemical substances.

- 2.9.1.1 Noise induced hearing loss is a highly underrated occupational condition. Occupational noise emitted by construction machinery and power tools must be controlled as far as possible by implementing engineering solutions such as noise dampening, regular maintenance, servicing and inspection, screening off the noise, and reducing the number of persons exposed. Personal protective equipment such as earmuffs and earplugs must also be used in conjunction with engineering controls so as to reduce noise exposure to below the acceptable levels. **All contractors are required to identify sources of noise which could impact on its personnel, to then assess the levels of noise, followed by implementing the necessary control measures to reduce the noise to acceptable levels. This must be clearly set out in the Contractor's hearing conservation programme contemplated in the NIHL Regulations.**
- 2.9.1.2 Ergonomics is the study of how workers relate to their workstations. We advise the Principal Contractor and Contractors to take this into consideration when conducting risk assessments, thereby improving the worker-task relationship, which will in turn improve productivity and reduce chronic conditions such as back strains, joint problems and mental fatigue, amongst others.
- 2.9.1.3 Dust control (biomass product dust) – The Principal Contractor must ensure that dust control measures are implemented and enforced in order to minimise the levels of exposure to below the legal limits. **This must include the possible dust exposure to the 'biomass mixture' should same be required to be mixed on site. The product is deemed to be non-hazardous however the use of standard FFP1 dust masks is advised during such exposure to dry dust.**

2.9.2 Hazardous Substances

The Principal Contractor must provide the necessary training and information as far as the use, transport, and storage of HCS. The Principal Contractor and contractors must ensure that the use, transport, and storage of HCS are carried out as prescribed in the HCS Regulations. The Principal Contractor and contractors must ensure that all hazardous chemicals on site have been assessed for risk (written risk assessments for each hazardous chemical) and have Material Safety Data Sheets (MSDS) available and the users are made aware of the hazards and precautions that need to be taken when using the chemicals. The First Aiders must be made aware of the MSDS's and how to treat HCS incidents appropriately. Copies of the MSDS's must be kept in the first aid box and in the store. All containers must be clearly labelled.

Flammable substances such as petrol used for petrol generators must be stored separately, away from other materials, and in a well-ventilated area (appropriate cross ventilation). A competent person should be appointed to be in control of this portfolio.

Stores must be well ventilated, preventing the build-up of flammable and toxic gases/vapours.

Substances foreseen: biomass mix, petrol, shutter oil for formwork, waterproofing paint for biomass, solvents for cleaning, sewer effluent.

Plant and machinery may only be serviced and repaired in designated areas where control measures can be effectively implemented to prevent spills, leaks and other environmental contamination. Drip trays must be used.

2.9.3 Welfare Facilities

The Principal Contractor must ensure that sufficient toilets (1 toilet per 30 workers), hand washing facilities, soap, toilet paper, and hand drying material are made available at the site in accordance with the Construction Regulations.

Workers must not be exposed to hazardous materials/substances while eating and must be provided with adequate, sheltered eating areas complete with benches and tables. Stores may not double up a change rooms or mess areas.

Adequate undercover changing and eating facilities must be made available for workers.

2.9.4 Asbestos Work

Any asbestos work must be carried out as per the requirements as set out in the Asbestos Regulations (no. R155, 2002). **Asbestos containing materials (ACM's) are not foreseen as part of this project/contract however the presence of underground asbestos containing sewer pipes cannot be discounted. The existing buildings identified as part of the school precinct would not be altered and therefore were not assessed for the presence of asbestos containing materials.**

Any products identified by the Contractor as possibly containing asbestos, not identified as part of the initial risk assessment must be reported to the **Client's Agent** forthwith so that the necessary safety/health measures can be prescribed before such products are cleaned, worked on or removed.

Should asbestos work be required, an **asbestos plan of work** will be required from the appointed **Asbestos Contractor (registered with the Dept. of Labour)** and approved by the appointed **Approved Asbestos Inspection Authority (AAIA)**. The **plan of work** must include but not be limited to discussing the following:

- a) The provision of suitable respiratory equipment and clothing for all asbestos workers who could be exposed to fibres;
- b) The prevention of dry cutting or drilling, a suitable wet method must be used while removing/working on the asbestos products;
- c) The prevention of dry brushing, scraping or sanding of asbestos products;
- d) The safe disposal of asbestos waste;
- e) The proper storage of asbestos products while on site.

2.9.5 Alcohol and other Drugs

No alcohol and/or other drugs will be allowed on site. No person may be under the influence of alcohol or any other drugs while on the construction site. Any person on prescription medication must inform his/her superior, who shall in turn report this to its Principal Contractor forthwith. Any person suffering from any illness/condition that may have a negative effect on his/her /anyone else's health or safety performance must report this to his/her superior, who shall in turn report this to its Principal Contractor forthwith. Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately, to report back the next day for a preliminary inquiry. The Contractor concerned must follow a full disciplinary procedure and a copy of the disciplinary action must be forwarded to its Principal Contractor for its records.

2.10 Duties of Designers

A designer must ensure that he/she complies with the requirements of the Construction Regulations. Designers have a duty both to assist in health and safety during construction as well as post construction to

ensure safe occupation of the structures concerned. This will include informing the Principal Contractor in writing of any known or anticipated dangers or hazards relating to the construction work, and making available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered.

Designers must ensure that the following information is included in a report and made available to the Principal Contractor:

- i) The methods and sequence of the construction process.
- ii) Any health & safety information about the design which could have an influence on the pricing of the work.

A written report will be required from each Designer addressing the information set out below (in terms of Construction Regulation 6). The Construction Regulations (CR's) requires Designers (see definition of Designer in CR 1) to make certain information available to the Client (H&S Agent) and Contractors with the aim of 'designing out hazards' as far as possible. The aim of the report(s) would be to address the various headings (set out below) as best possible in an effort to make as much information available to the contractors so that they can improve their H&S management on the actual site.

Items to be addressed by Designers in terms of CR 6:

1. Anticipated or known dangers or hazards (known at this stage) relating to the construction work, foreseen by the Designer, including the relevant information required for the safe execution of the work. This must also include **health & safety information about the design which could have an influence on the pricing** of the work.
2. Dangerous substances/materials foreseen which cannot be avoided during this particular type of construction.
3. Dangerous procedures foreseen which cannot be avoided.
4. Hazards and risks relating to the subsequent maintenance of the structure/building foreseen and resulting safe work procedures advised.
5. Site inspections to verify whether construction of the relevant structures are being carried in accordance with the designs. How will this be handled by you and your team on the project?
6. The stoppage of contractors where required (by the Designer) - the envisaged protocol to be followed to stop an activity or process on site. How will this be handled by you and your team on the project?
7. The application of ergonomic principles during design - how has and will this be implemented by the respective Designers?

Note that no guidance notes have yet been made available from the Department of Labour and the above list therefore represents the Agent's interpretation of the Regulations.

These Health & Safety Specifications were developed by Eppen-Burger & Associates for the sole use on this project and not intended for any other purpose.

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Prepared by **Marius Eppenberger** - Construction Health & Safety Agent
(PrCHSA 034/2016)

Project: Construction of new ablution blocks at various schools as part of the Cluster 7, Mthatha project

Date: September 2019

PRIMARY HEALTH AND SAFETY COMPLIANCE

Project: Ablution Blocks at Schools – Cluster 7, Mthatha

ANNEXURE A

The Principal Contractor and its Contractors must submit compliance with Annexure 'A' before commencing with work on site. Compliance with Annexure 'A' must be maintained and proven to the H&S Agent at audits.

HSS Item No.	Requirement	Legal Reference	Compliance required:
A1	Health & Safety Plan (H&S plan)	Constructions Regs.	Within two weeks of receipt of these Specifications and before work commences.
A2	Notification of Intention to Commence Construction / Building Work	Complete Schedule 1 (Construction Regs)	At least seven days before commencement of construction work at the school in question .
A3	Assignment of Responsible Persons to Supervise Construction Work	OHS Act ~ Section 16(2) appointee ~ Construction Manager, Alternate Manager; Assistants, and Activity Supervisors.	Before commencement on site.
A4	Appointment of Construction Safety Officer	Construction Regs	A part-time safety officer has been specified on this project by P/Contractor – one site visit per fortnight. All other contractors will need to appoint part-time safety officers who will need to visit site at least once every 30 days.
A5	Compensation for Occupational Injuries and Diseases – proof of registration	COIDA	Before appointment.
A6	Preliminary Hazard Identification and safe work procedures – baseline HIRA	Construction Regs.	Together with H&S plan.

HSS Item No.	Requirement	Legal Reference	Compliance required:
A7	Provide the criteria that you will be using to assess the competence of Contractors before appointment in terms of H&S	Construction Regs.	Together with H&S plan
A8	Provide the criteria you intend to use when assessing Contractor H&S Plans as well as when conducting monthly audits on your Contractors	Construction Regs.	Together with H&S plan
A9	Provide the methodology that you will be using when it comes to the stopping of dangerous activities on site	Construction Regs.	Together with H&S plan

HSS = health & safety specifications
 OHS Act = occupational health & safety Act
 CR = construction regulations
 COIDA = compensation for occupational injuries and diseases Act

ASSIGNMENT OF PRINCIPAL CONTRACTOR'S AND CONTRACTORS' RESPONSIBLE PERSONS

Project: Ablution Blocks at Schools – Cluster 7, Mthatha

ANNEXURE B

The Principal Contractor must make all the management appointments as set out below. Compliance with annexure 'B' to be maintained and proven to the safety agent at audits (Further appointments could become necessary as the project progresses).

Item	Appointment	Legal Reference	Requirement
B1	CEO Assignee	OHA Act, Section 16(2)	A competent person to assist the CEO in achieving compliance with the OHS Act – P/Contractor's / Contractor's Responsible Person.
B2	Construction Manager and Alternate Manager specific to the school in question	CR 8	A full time competent person to supervise and be responsible for health & safety related issues on site. The person is appointed by the Section 16(2) assignee.
B3	Section and Activity Supervisors and H&S induction officer specific to the school in question	CR 8(7) and 8(8)	The appointment of supervisors specific to trades, activities, sections, areas on site. The various risk assessments must detail the supervision requirements. A designated supervisor must ensure that H&S inductions are co-ordinated and managed.
B4	Risk assessment co-ordinator	CR 9	A competent person to co-ordinate the drafting/ reviewing/distribution of risk assessments on behalf of the Principal Contractor. The same applies to Contractors.
B5	First Aider(s)	GSR 3	A certificated person to address first aid situations and take charge of injuries. A certificated first aider is necessary as soon as there are 10 personnel on site (each school).
B6	Excavation inspector and supervisor	CR 13	Competent persons must be appointed first of all supervise excavations on site and then a person to undertake the daily inspections of the excavations.
B7	Portable Electrical Tool Inspector	CR 24 -	A competent person to co-ordinate / inspect portable electrical tools, leads and plugs.
B8	Construction vehicles & mobile plant operators and inspectors	CR 23	A competent person(s) to co-ordinate the safety of construction vehicles & mobile plant. Ensuring daily inspections are done and records kept, that safety measures are in place, operators are certified, authorised to operate and that maintenance and services are carried out when required.
B9	Construction safety officer and incident investigator	CR 8(5)	A competent person to fulfil the functions as set out in these HSS – part-time for P/Contractor i.e. once per fortnight on site.

GENERAL COMPLIANCE REQUIREMENTS

Project: Ablution Blocks at Schools – Cluster 7, Mthatha

ANNEXURE C

The Principal Contractor and Contractors must comply with but not be limited to the requirements tabled below: Prove compliance with annexure 'C' at audits conducted by the safety agent.

Item	What	When	Output	Reviewed by Client Date:
C1	Construction-phase Health & Safety Plan	Monthly review	Principal Contractor to indicate the status of Contractors' health & safety plans.	
C2	Health & Safety File(s)	Open file when construction begins and maintain throughout.	Have file on hand at audits. Contractors to report on their file at monthly health & safety audits by the Principal Contractor.	
C3	OHS Act and relevant Regulations	Monthly review	To be kept in the health & safety file on site.	
C4	Health & Safety Induction training	Every worker before he/she starts work.	Attendance registers to be kept.	
C5	Awareness Training (Tool Box Talks)	At least every fortnight.	Attendance registers to be kept.	
C6	Health & Safety Reports	Weekly (safety officer)	Reports covering: <ul style="list-style-type: none"> • Incidents / injuries and investigations • Non-conformances by employees & Contractors • H&S inspection findings 	
C7	Audits on contractors	Monthly	Report covering <ul style="list-style-type: none"> • H&S File/Plan • WCA status • Appointment letters • Section 37(2) agreements • Risk assessment & safe work procedures • Physical site inspection • Any other contractor specific requirements. 	

Item	What	When	Output	Reviewed by Client Date:
C8	Emergency procedures	Monthly evaluation of procedure	Compile written procedure as well as tel. numbers.	
C9	Risk assessments	Updated and signed off at least monthly.	Documented activity specific risk assessments to be available.	
C10	General Inspections	Daily	Report OHS Act compliance: <ul style="list-style-type: none"> • Excavations and trenches. • Portable electrical tools. • Construction vehicles, mobile plant, small plant. • Public protection - signage, notices, barrier netting and fencing. • Stacking and storage. 	
C11	General Inspections	Weekly	<ul style="list-style-type: none"> • Temporary Electrical Installations. • Scaffolding. 	
C12	General Inspections	Monthly	<ul style="list-style-type: none"> • First aid equipment. • Ladders. 	
C13	List of Contractors	List to be updated weekly	Compile a list of Contractors: Name, supervisor, company tel. numbers and trade.	
C14	Workman's Compensation	Ongoing	Compile a list of Contractors' workman's compensation proof of good standing.	
C15	Construction site rules & Section 37(2) Mandatory Agreements	Ongoing	Compile a list of all signed up Mandataries. Proof of agreement documents to be kept in H&S file.	
C16	Medical assessments or as otherwise prescribed. Competence of personnel.	Annual assessments	Proof to be available in the form of certificates of fitness. Certificates of competence required for various operators and personnel.	

CONSTRUCTION HEALTH & SAFETY COSTS TO BE INCLUDED IN THE PRINCIPAL CONTRACTOR'S PRICE
Project: Ablution Blocks at Schools – Cluster 7, Mthatha

ANNEXURE D

In terms of the Construction Regulations (2014), it is the Client's duty to ensure that the cost for health & safety has been provided for by the Principal Contractor, before appointment.

Acting on behalf of our Client, we require the following health & safety costs to be provided for by the Contractors.

It must be made very clear that these are just some of the health & safety costs to be included in your tender price. It is the duty of the Principal Contractor and its Contractors to ensure that all aspects of the Occupational Health & safety Act 85/1993 and Construction Regulations are catered for.

No.	ITEM	DETAILS	PRICE budgeted by Contractor
1	Personal protective equip. (PPE)	1.1 Safe footwear. 1.2 General PPE as required (hearing protection, eye protection, gloves, dust masks). All as per risk assessments by P/Contractor and Contractors. 1.3 Lockable, clean area to store PPE and private clothing and goods. 1.4 Hard hats including three no. for visitors.	
2	H&S induction training	2.1 All workers and site visitors – <u>Principal Contractor</u> to induct all personnel and visitors during the construction stage. 2.2 Competent induction officer to be designated – the foreman or site manager.	
3	First aid management	3.1 First aid box, splints and eye wash. 3.2 First aider by P/Contractor as soon as total workforce exceeds 10 per school site .	
4	Public protection	4.1 1.8m high fencing to be erected around all construction work areas. 4.2 Safety signage to be posted up at entrances to construction work areas and at intervals along the fencing.	
5	H&S officer	5.1 Monthly rate for a part-time P/Contractor safety officer . This person must comply with the requirements of the Construction 2014 (SACPCMP registered) and must visit site once per fortnight . 5.2 Subbie safety officers must visit site once per month . 5.3 H&S administration – files and paperwork. 5.4 Consolidated H&S documentation at end of the project including all sub-contractor documentation. 5.5 cell phone including camera function.	

No.	ITEM	DETAILS	PRICE budgeted by Contractor
6	Welfare facilities	<p>6.1 Toilets (1 toilet per 30 workers). Separate toilet for women.</p> <p>6.2 Soap.</p> <p>6.3 Change area separate from eating area. Tables and benches sufficient number for personnel, including subbies.</p> <p>6.4 Drinking water.</p> <p>6.5 toilet paper.</p> <p>6.6 Lockable container/store for PPE.</p> <p>6.7 Electrical supply and plug points for cooking and hot water.</p> <p>6.8 Lights.</p>	
7	Medical assessments of personnel	<p>7.1 All construction personnel must be certified medically fit by a registered occupational health practitioner.</p> <p>7.2 Hearing tests to form part of the medical assessments and must be carried out at least every two years or more often depending on previous audiogram.</p>	
8	Supervision	<p>8.1 P/Contractor to appoint a construction manager designated to this project and one Assistant Manager per school site.</p> <p>8.3 Section and activity supervisors to be appointed where necessary.</p> <p>8.4 Each sub-contractor needs to appoint a site supervisor to be on site while their work is taking place.</p> <p>8.5 Contractors to ensure supervisors are on site during after-hours work.</p>	

**Proof of Contractor H&S competence and resources
in terms of the Construction Regulations 2014
Project: Ablution Blocks at Schools – Cluster 7, Mthatha**

ANNEXURE E

Construction Regulation 5(1)(h) requires the Client to assess every Principal Contractor's competence and resources to carry out the work in question safely and without negative effects to the health of its personnel and/or other persons who could be affected by the construction work in question.

It is with this in mind that the following questions are posed. It is requested that the respondent answers all the questions below and provides the necessary supporting documentation.

1. Company profile or similar, detailing such information as: years in existence; experience and qualifications of senior company officials; support systems e.g. plant yard, maintenance workshops, in-house plant, etc.
 2. CIDB (Construction Industry Development Board) grading if any.
 3. Registration with any industry associations e.g. SAFCEC or MBA.
 4. Previous contracts of similar scope and complexity to the one in question. Note that your appointment as the Principal Contractor will include the oversight and co-ordination of other trades based on the specific scope of work set out in the tender. Have you managed such trades before?
 5. A copy of a preliminary risk assessment document and health & safety plan compiled for a similar project within the past two years which was approved by a Client's Health & Safety Agent. Proof required.
 6. An H&S audit conducted on a sub-contractor within the past two years – audit report required.
 7. The contents of a typical company health & safety file – index page will do (must carry company logo or similar).
 8. What calibre of construction manager and foreman would you envisage placing on this project – experience, qualification, knowledge, and training? It is understood that you may not have these persons earmarked at this time however a mere indication of the competence of such person will do.
 9. Does your company employ a safety officer or do you consult with an outside safety consultant? Are these persons registered with the SACPCMP (South African Council for Project & Construction Management Professions) – proof will be required?
 10. Proof of valid workman's compensation will be required in the form of a letter of good standing. Public liability insurance will also need to be proven.
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BASELINE HEALTH & SAFETY RISK ASSESSMENT & RISK RATING MATRIX

Project: Ablution Blocks at Schools – Cluster 7, Mthatha

ANNEXURE F

A. INHERENT CONDITIONS

The premise for the drafting of a baseline health & safety risk assessment is to identify the existing, inherent conditions at the future construction site location, and to understand the impacts these conditions could have on the construction design methodology, the intended construction methods and processes, and the pricing of the construction contract.

Baseline Health & Safety Hazard Identification – Inherent Conditions:

No.	Danger / Hazard	Yes	No	Risk rating	Comments
1	Will the works be adjacent to, under, over public roadways?	√		L	The construction work will take place within existing school premises and therefore off busy roadways and walkways. There are however internal roadways which will pass close to the site.
2	Will the work be adjacent to, under, over public walkways?	√		M	Pedestrian volumes are foreseen to be high as this work will be within the confines of schools with learners passing nearby.
3	Will the works be adjacent to, under, over public transport routes e.g. railways, taxi rank, bus stops, public cycle routes?		x	-	-
4	Could poor visibility be a factor i.e. misty conditions, lack of street lights, bend in the road on approaches?		x	-	-
5	Are there discernible walkway tracks/routes crossing the proposed site?	√		M	Currently the schools are used by learners and staff.
6	Will the works be adjacent to neighbouring buildings and structures in close proximity?	√		M	Existing buildings (various) were identified within the school precincts.

No.	Danger / Hazard	Yes	No	Risk rating	Comments
7	Will the works be adjacent to other construction projects/contracts?		x	-	-
8	Will the works be adjacent to, above, under electrical services e.g. high voltage electrical installations?		x	-	No electrical services were identified within the foreseen work sites although this will need to be confirmed by the principal agent based on as-built drawings of the existing precinct.
9	Are there other existing services close to or within the foreseen construction site e.g. sewerage, storm water, water, gas, telecoms?		x	-	No services have been identified however this will need to be confirmed by the P/Agent.
10	Could existing storm water management be negatively influenced by the works?		x	-	-
11	Will the works be adjacent to, over water environments?		x	-	-
12	Will heritage legislation be triggered and are archaeological findings likely?		x	-	-
13	Are there any existing buildings and/or structures on the proposed site?		x	-	In close proximity though i.e. school buildings.
14	Has a structural survey of such existing buildings / structures been undertaken?		x		N/A
15	Is the site located in a corrosive environment i.e. close to the ocean?		x		
16	Is there an asbestos inventory report available and has asbestos be identified?		x	-	No asbestos has been identified. The works does not involve any existing buildings or structures.
17	Apart from asbestos, are any other hazardous materials foreseen e.g. lead, medical waste, sources of radiation, explosive environments, oxygen deficient environments, etc.?		x	-	-

No.	Danger / Hazard	Yes	No	Risk rating	Comments
18	Has contaminated ground been identified?		x	-	-
19	Is a geo-technical science report available?		x	-	N/A
20	Does the geo-technical science report specify the angles of repose specific to the ground conditions?	-	-	-	N/A
21	Existing topography wrt inclines, drop-offs, holes, fall hazards?		x		No related dangers identified.
22	Is the presence of dangerous fauna and flora foreseen?		x	-	No such identified.
23	Is there a fire risk foreseen?	√		L	There is a low risk of fire due to hot works and associated activities being very limited.
24	Is the site isolated and far from emergency services?	√		H	The sites will be located in rural towns relatively far from emergency services.
25	Is the presence of unrest and crime probable?	√		L	The sites are located in small towns with limited unrest potential foreseen.
26	Will or has an environmental impact assessment (EIA) been triggered?		x	-	-

Danger = anything which may cause injury or damage to persons or property.

Hazard = means a source of exposure to danger.

Risk = Means the probability that injury or damage will occur.

Risk rating = Refer to the risk rating matrix in Annexure 'B' herein below.

B. CONSTRUCTION RELATED ACTIVITIES & SITUATIONS TRIGGERING SIGNIFICANT RISKS

Apart from the inherent conditions identified above, an assessment of the construction methods foreseen has also been made with the aim of assessing the baseline risks associated with such methods.

Contractors must ensure that they include an assessment of the activities listed below in their health & safety plan and preliminary risk assessment documents. This list is not exhaustive and only includes the activities foreseen by the client's construction H&S agent (CHSA) as posing a substantial risk of injury and/or property damage. The risk

ratings (E, H, M, L) are an indication of the perceived risk (injury and/or property damage) assessed by the CHSA based on: severity of injury/damage and likelihood of injury/damage.

The following health & safety control categories must be considered by Contractors and Designers depending on the level of risk (E, H, M, L):

1. Eliminate the hazard (remove the activity altogether)
2. Substitute the hazard (replace the activity with a suitable alternative)
3. Supervision: 3(a) Trade/activity-specific supervision; 3(b) Section/area-specific supervision
4. Written method statement (step-by-step sequence of events incl. the H&S interventions)
5. Engineering controls (barriers, screens, guards, covers, electronics, public protection, etc.)
6. Training: 6(a) H&S Induction; 6(b) HIRA training session; 6(c) Competence training; 6(d) OHS Act training; 6(e) Daily safety task instructions (DSTi's)
7. Planned task observations (PTO's)
8. Inspections and records/registers (preventative maintenance)
9. Sign and notices
10. Personal protective equipment (PPE)

Which H&S control categories to consider based on the risk rating category:

Extreme risk: make use of all categories: 1 – 10

High risk: 3 – 10

Moderate: 3, 4, 5, 6(a), 6(b), 7, 8, 9, 10

Low: 3(b), 6(a), 9, 10

No.	Danger / Hazard	Risk rating prior to control measures	Comments:
1	Traffic and work in close proximity to roadways.	L	Note that the Designers will need to take these dangers/hazards into account during their design work, with the aim of minimising the H&S risks as far as possible. The construction work will take place within school precincts and therefore off busy roadways and walkways. There are however internal roadways which will pass close to the work areas.
2	Pedestrian access.	M	Pedestrian volumes were assessed to be high due to the presence of school learners and staff in close proximity to the work sites.
3	Construction vehicles and mobile plant use.	M	The use of mobile plant and construction vehicles will be limited due to the limited extent of the work i.e. minor earthworks, material deliveries, single storey ablution buildings.
4	Small plant e.g. petrol generators.	M	Environmental management systems would need to be implemented by the contractors.

No.	Danger / Hazard	Risk rating prior to control measures	Comments:
			Note that the Designers will need to take these dangers/hazards into account during their design work, with the aim of minimising the H&S risks as far as possible.
5	Temporary electrical installations to the site.	M	Contractor to ensure the safe installation of temporary electrics including the safe use of petrol generators.
6	Provide access to site, to the site office, and access on site.	L	Contractor to ensure safe access to the site offices (if in place) and on the actual sites.
7	Earthworks and trenching.	M	The use of earthworks and trenching plant e.g. digger/loader. Work will be limited to shallow trenches for foundations and associated structures e.g. grey water tanks, however some deeper excavations are foreseen from time to time.
8	Access scaffolding.	M	Scaffold Code to be adhered to. Fall prevention a priority. Heights will be limited to 2.5m.
9	The use of extension ladders and step ladders.	M	Ladders to be the correct length for the job i.e. must be able to extend 1m above the height of the single level roof height of the buildings.
10	The use of portable electrical tools such as angle grinders, cut off saws and electrical extension leads.	M	Trained operators to make use of electrical tools. The correct PPE to be worn.
11	Formwork and associated support work structures (lateral support and propping) – erection, alterations, dismantling of formwork for biomass panel construction on site.	M	A temporary works designer will need to be appointed by the P/Contractor or client to oversee the formwork work designs and to undertake certain inspections to sign off the form work structures before use i.e. before pouring of biomass into formwork.
12	Delivery and off-loading of pre-cast biomass panels to site.	M	Fall prevention systems (access and work platforms) to be catered for.
13	Roof work where steel roof sheeting will be used.	M	Fall risk work to be managed in accordance with a well detailed and specific fall protection plan (FPP).
14	Work on biomass roof slab where this is the preferred form of roof construction.	M	Fall risk work to be managed in accordance with a well detailed and specific fall protection plan (FPP).

No.	Danger / Hazard	Risk rating prior to control measures	Comments:
			Note that the Designers will need to take these dangers/hazards into account during their design work, with the aim of minimising the H&S risks as far as possible.
15	Biomass mixing and handling to formwork.	M	Mixing plant required. Trained operator required. Biomass will need to be handled to the formwork at fall risk positions although limited to a maximum of 2.5m in height.
16	Lifting machine use i.e. truck mounted crane.	M	Access and positioning of truck mounted crane to offload such materials as pallets of biomass bags and pre-cast biomass panels to site. Cranes to be in compliance with the Driven Machinery Regulations.
17	Hot works e.g. welding, grinding/cutting of steel/rebar, etc.	L	This may be limited to soldering of copper pipes and the like.
18	Fire hazards.	L	Contractor management of hot work activities and presence of fire-fighting equipment.
19	Noise	M	Designers to take into account the impact of noise wrt construction activities e.g. grinding and cutting of biomass panels, core drilling through biomass panels, chasing for electrical routes, etc.
20	Dust in the form of biomass mix.	M	This is foreseen while carrying out the onsite mixing of biomass product.
21	Ergonomic impacts	M	Ergonomics is the study of how a person relates to his or her work station/activity. The decision to make use of construction methods should take this into account.
22	Installation and testing of the new permanent electrical installation to the ablution facility.	H	The new permanent electrical installations must be overseen by a qualified installation electrician. The commissioning and testing of the installations may only be performed by qualified persons under the control of an installation electrician.
23	Exposure to untreated sewer effluent during snagging and practical/works completion.	M	This is foreseen however will be limited to certain trades i.e. plumbers. A detailed risk assessment will need to be done by such contractor before exposure is permitted.

Danger = anything which may cause injury or damage to persons or property.

Hazard = means a source of exposure to danger.

Risk = Means the probability that injury or damage will occur.

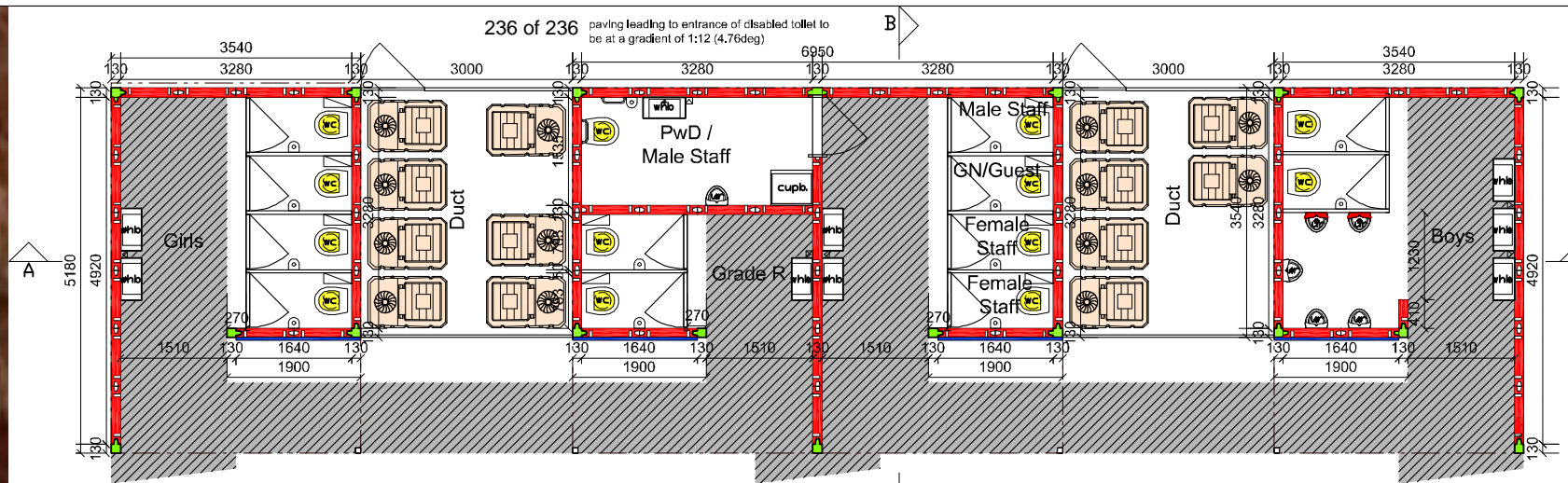
Risk rating = Refer to the risk rating matrix herein below.

Risk Rating Matrix						
Consequence of occurrence (Severity)		Likelihood of occurrence				
	-People, -Property, -Environment	5 - Very likely	4 - Good chance	3 - Likely	2 - Unlikely	1 - Very unlikely
		The threat is expected to occur (once per week, say)	The threat will quite commonly occur (once per month, say)	The threat may occur occasionally (once per year, say)	The threat could occur infrequently (1 in 10 years, say)	The threat may occur in exceptional circumstances (1 in 30 years, say)
A - Disastrous	-Single or multiple fatality. -Virtual complete loss of plant, system, structure(s). -Permanent widespread ecological damage, not able to be remediated.	Extreme	Extreme	Extreme	Extreme	High
B - Critical	-Disabling injury (LTI) resulting in a Section 24 injury or occupational illness i.e. amputation, loss of consciousness, etc. -Extensive damage to plant or system – section 24 incident. -Heavy ecological damage, costly, lengthy remediation.	Extreme	Extreme	Extreme	High	High
C - Serious	-Any lost time injury (LTI) resulting in one or more consecutive days off work. -Significant damage to plant or system. -Major ecological damage but able to be remediated.	Extreme	High	High	Moderate	Moderate
D - Significant	-A medical treatment injury (MTI) i.e. any injury resulting in a worker requiring medical treatment other than first aid, but not being booked off work. -Damages impact on budget and program. -Localised ecological damage, easily remediated.	High	High	Moderate	Low	Low
E - Minor	-Minor First Aid Injury or an injury not requiring treatment. -Minor damage to plant or system. -Negligible ecological damage, may or may not require any remediation.	Moderate	Moderate	Low	Low	Low

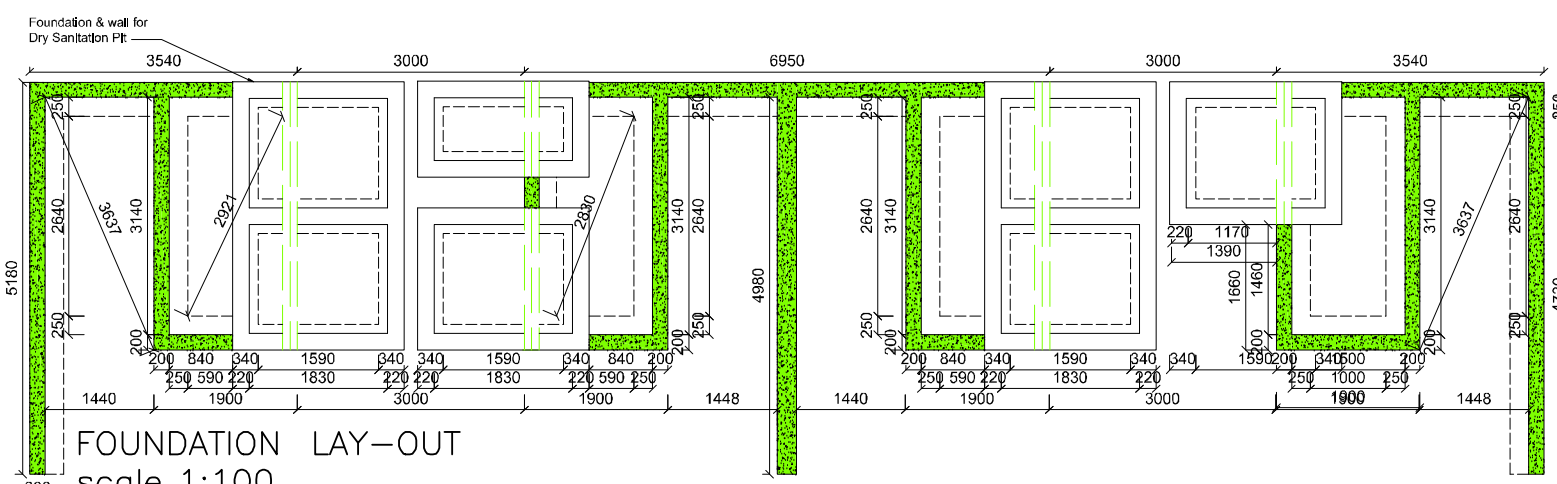


SITE PLAN
scale 1:750

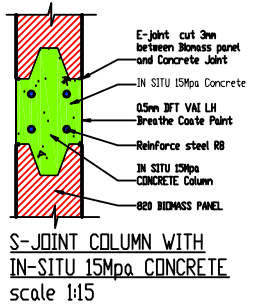
NOTE TO CONTRACTOR:
Final Position of Building &/or Septic Tanks & Soak Away to be determined on Site



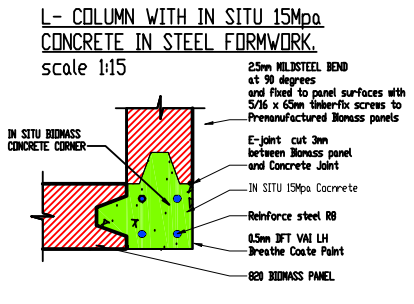
PLAN LAYOUT BLOCK A19P
scale 1:100



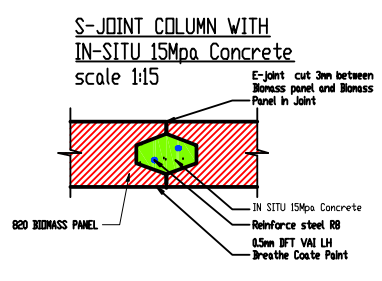
FOUNDATION LAY-OUT
scale 1:100



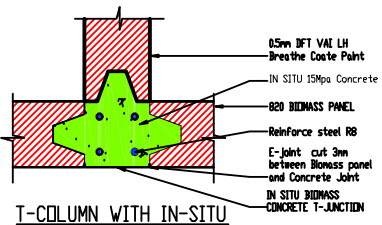
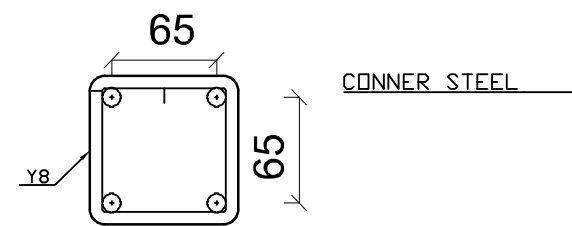
S-JOINT COLUMN WITH IN-SITU 15Mpa CONCRETE
scale 1:15



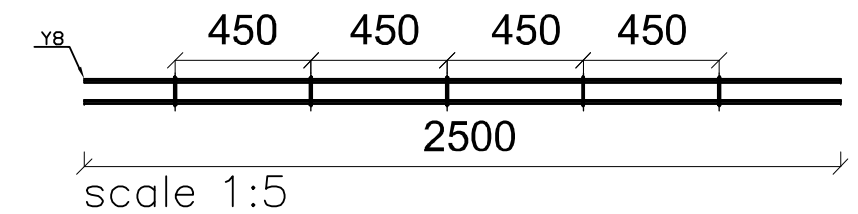
L-COLUMN WITH IN SITU 15Mpa CONCRETE IN STEEL FORMWORK
scale 1:15



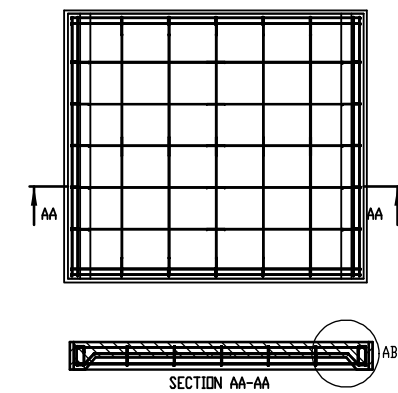
S-JOINT COLUMN WITH IN-SITU 15Mpa Concrete
scale 1:15



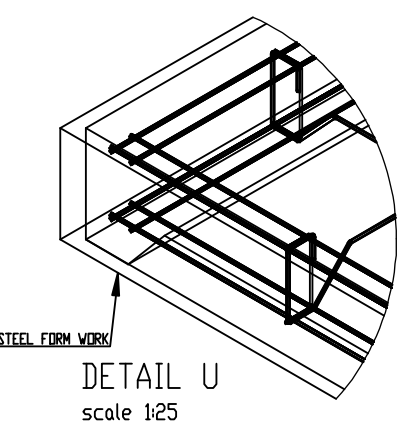
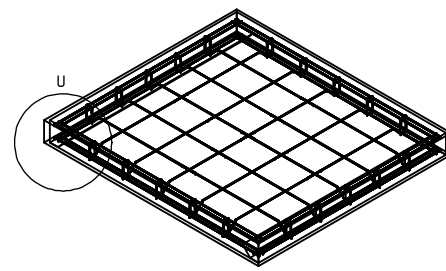
T-COLUMN WITH IN-SITU 15Mpa CONCRETE
scale 1:15



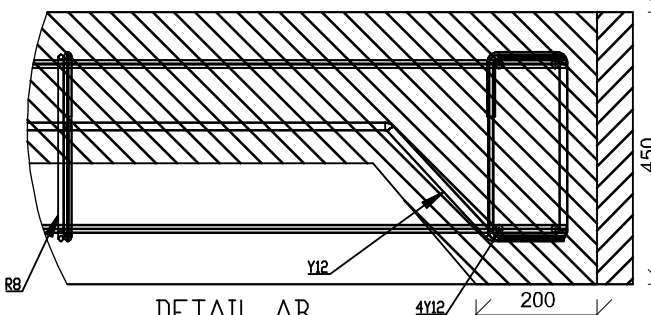
scale 1:20



SECTION AA-AA



DETAIL U
scale 1:25



DETAIL AB
scale 1:25

All dimensions to be checked on site and on drawings, any discrepancies to be reported to the architect before work is put in hand. Only fixed dimensions are to be taken. All levels to be checked on site and on drawings & any discrepancies must be reported to the architect before any work is put in hand. All levels shown are finished floor levels. Soil and founding conditions must be checked and verified by a geotechnical engineer. All work must be completed in accordance with SANS 10400 and the current National Building Regulations. All structural work must be checked by a structural engineer & must be read in conjunction with their drawings.

DEW SYSTEM NOTE:
Final position of the DEW (Decentralized Ecological Waste Water Treatment) System to be confirmed on site by a Supervising Contractor from Isidima

DRAINAGE NOTES:
RE's to all changes in direction of soil pipes. IE's to all bends & junctions. Reseal traps to all waste fittings. Waste pipes are to be entirely accessible along entire length. Bends & junctions are not to be located under the building. Soil pipes located under building to be protected from load. All work to comply with Local Authority by-laws.

Pipe sizes: 160mm
110mm w/b 50mm
110mm sink 50mm

COMPLIANCE NOTES - SANS 10400 - A:2010 Edition - refers:
FORMWORK: STRUCTURE AND CLADDING:
Where required verified by the appointed structural engineer, and constructed in accordance with SANS 16151 and SANS 10005. The Preservative treatment of steel shuttering and compliance to safety requirements.
PROTECTION:
prototype Biomass Insulated Concrete tested in accordance to SANS 101077-2 Fire testing of materials and complex to Agrima2018-578. components and elements used in buildings - Part 2. Fire resistance test for wall elements comply to FR180-min and roof slab elements to 60min. Fire protection in accordance with SANS10400 Part 1: Fire protection and any the equipment installation and signage in accordance with SANS 10400 Part installations and Duty 10 based on Rational Fire S. Design.

STRUCTURAL DESIGN:
structure in accordance with SANS 10400 Part B, structural. Subject to the design of the appointed structural engineer.

DIMENSIONS:
accordance with SANS 10400 Part C. Dimensions.

SAFETY:
All site safety requirements remains the responsibility of the contractor and H&S guidelines issued by the representative of the client WOP must be adhered to and ensure safety around schools and school visitors. Balustrades in accordance with SANS 10400 Part D, public.

OPERATIONS:
accordance with Agrima Approved LIGHT HOUSE Construction procedure SANS 10400 Part F, site operations

FOUNDATIONS:
Foundations to be in accordance with SANS 10400 foundations and strictly to engineers' designs & specs.
Floors to be in accordance with SANS 10400 Part - Floors.
Walls to be in accordance with SANS 10400 Part - Walls.
Material & structure to be in accordance with SANS Part - Roofs and design subject to verification by structural engineer.

STAIRCASE:
staircases to be constructed in accordance with SANS Part M, stairways.

DOORS & WINDOWS:
Doors & windows to be in accordance with SANS 10400 Part N, and Part O Lighting and ventilation.

DRAINAGE AND STORMWATER DISPOSAL:
constructed in accordance with Part SANS 10400. Drainage and - accordance with Part - SANS 10400. Stormwater disposal.

204 AND SANS 10400XA:
Compliant - full report available on request.

General description:
Light House Building system 2018-578 is designed for the erection of single-story structures. The system comprises of walls made from colored biomass concrete mixture. The biomass concrete mixture consists of binder cement and additives, aggregate and wood chips.
The Light House system for School ablutions is erected on a conventional concrete raft foundation that is designed by an approved competent person.
Roofs can either be constructed from in situ and precast concrete material or timber trusses, with light or heavy weight roof cladding.

Walls are either cast in situ, or premade of panels (2400mm high and 820mm wide). The density of the cured biomass concrete mixture is 1 100 and 1300kg/m3.
Walls are constructed in thickness ranging from 50mm for internal toilet partitioning walls to 130mm external walls.
External walls must be painted with a 1mm thick VAI-Breathecoat cement base plaster render.



NATURAL ENGINEERING SOLUTIONS	
PROFESSIONAL ENGINEERS	
REG. NO. 122 2019	
REG. NO. 122 2019	
REG. NO. 122 2019	
REG. NO. 122 2019	

Light House School Ablution Project 18023
A program of Dept of Environmental Affairs in Partnership with WRC & DBE

INTELLECTUAL PROPERTY RIGHTS:
- The Light House School Ablution design by DEA
- Intellectual property right is vested in DEA
- Working On Fire through VAI is the implementing agent
- All contractors, service providers & appointments will require NDA & warrant agreement for use of this Agrima 2018/578 approved process of construction
- WOP/VAI will have the right to withdraw any process

Design: CA Gielens	CH0225607
NES Arch: A.J. Oshane	ST19478
ES Str. Eng: W. ESTERHARZEN	
NES Proj. Eng: D. OOSTHARZEN	

PROJECT: NEW ABLUTION BLOCK NTLUKUHLE JUNIOR SECONDARY MTHATHA EASTERN CAPE

CLIENT: WORKING ON FIRE (PTY) LTD.
Client Signature

DATE: Sept, 2019	SCALE: see plan
PROJECT No. 18023-EC/A19P-D/02	TITLE: see plan
SHEET No. 1 of 4	REVISION No. DRAFT 02

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