



public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

TENDER NO: MTH01/2025

**IDUTYWA MAGISTRATES COURT: PLANNED
MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE
ENTIRE FACILITY**

VOLUME 1 – TENDERING PROCEDURES (THIS DOCUMENT)
VOLUME 2 – RETURNABLE DOCUMENTS
VOLUME 3 – THE CONTRACT

TENDER DOCUMENT

APRIL 2025

ISSUED BY:

DEPARTMENT OF PUBLIC WORKS
PRIVATE BAG X 5007
PRD BUILDING
MTHATHA
5099

PREPARED BY:

BISIWE VAN NIEKERK INC.
P.O.BOX 15546
BEACON BAY
EAST LONDON
5205

NAME OF TENDERER:



**IDUTYWA MAGISTRATES COURT: PLANED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
(WCS 054991 & 056942)**

CONTACT DETAILS

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public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

REFERENCE NO. :

TENDER NO: MTH01/2025

**VOLUME 1
TENDERING PROCEDURES**

IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY

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T.1.2 Tender Data

T1.1

Tender Notice and Invitation to Tender

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS 054991 & 056942

T.1.1: Tender Notice and Invitation to Tender

PA-04 (EC): NOTICE AND INVITATION TO TENDER

THE DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE INVITES TENDERS FOR:

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY
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Tender no:	MTH01/2025	Reference no:	
Advertising date:	04 April 2025	Closing date:	29 April 2025
Closing time:	11:00am	Validity period:	84 Calendar days

1. REQUIRED CIDB GRADING

It is estimated that tenderers should have a CIDB contractor grading designation of **7 GB** or **7 GB*** or higher.

** Delete "or select tender value range select class of construction works" where only one class of construction works is applicable*

It is estimated that potentially emerging enterprises should have a CIDB contractor grading designation of **Not applicable Not applicable PE** or **Not applicable Not applicable PE*** or higher.

** Delete "or select tender value range select class of construction works PE" where only one class of construction works is applicable*

2. FUNCTIONALITY CRITERIA APPLICABLE YES ☒ NO ☐

Note 1: Failure to meet minimum functionality score will result in the tenderer being disqualified.

Functionality criteria¹:	Weighting factor:
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¹The points allocated to each functionality criterion should not be generic but should be determined separately for each tender on a case by case basis.

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

<p>CRITERIA 1 - COMPANY EXPERIENCE</p> <p>The bidder to list successfully completed and comparable condition-based maintenance, repair and renovations or refurbishments related projects to the value threshold equal or above R20 000 000 per project and completed within the past 10 years (Up to and including 2015) on the DPW-09, namely:</p> <ul style="list-style-type: none"> • Name of Employer; • Contact number; • Contract sum; • Contractual commencement date; • Contractual completion date, and • Certificate of practical completion clearly stipulating date of completion. <p>Failure to provide complete information on this form or to provide information regarding the bidder's experience will lead to the bidder not scoring points in this criteria. Bidders must also note that failure to submit CERTIFICATE OF PRACTICAL COMPLETION will lead to the bidder not scoring points in this criteria.</p> <p>Completed similar construction project to a value between R20 million and 35 million. (5 Weight PER PROJECT)</p> <p>Completed similar construction project to a value above R35 million and up to R50 million. (6 Weight PER PROJECT)</p> <p>Completed similar construction project to a value above R50 million. (10 Weight PER PROJECT)</p>	<p>30</p>
<p>CRITERIA 2 - REFERENCE LETTERS</p> <p>Provide signed reference letters from Clients, Principal Agents, other Consultants or Project Managers confirming your company's appointment, performance and recommending your company's performance on the projects on CRITERIA 1 LISTED ABOVE. (Maximum of 5 letters)</p> <p>Total score per reference letter will be used and weighting is to be rounded to the nearest whole number.</p> <p>Each reference letter is scored out of a maximum weight of 6</p> <p>30 Weight = 5 Points (NB: ALL FIGURES WILL BE ROUNDED OFF TO THE NEAREST WHOLE NUMBER)</p>	<p>30</p>

<p>CRITERIA 3 - FINANCIAL CAPACITY</p> <p>Submission of a valid bank rating document from your Banking institution with a minimum threshold of R5 million over a (6) months.</p> <p>A bank rating should contain only one bank code and not a combination of two or more. A bank rating letter with more than one code will not be considered.</p> <p>A bank rating letter with an amount lower than the threshold value will not earn points.</p> <p>A Bank rating/Code of "E". (2 Weight = 1 Point)</p> <p>A Bank rating/Code of "D". (4 Weight = 2 Points)</p> <p>A Bank rating/Code of "C". (6 Weight = 3 Points)</p> <p>A Bank rating/Code of "B". (8 Weight = 4 Points)</p> <p>A Bank rating/Code of "A". (10 Weight = 5 Points)</p>	<p>10</p>
<p>CRITERIA 4 - SITE AGENT EXPERIENCE</p> <p>Provide the following information for Site Agent or Contracts Manager who will be employed full time on this project:</p> <ul style="list-style-type: none"> • A detailed Curriculum Vitae; • Originally certified copies of ID; • Originally certified copies of built environment academic qualifications; • A summary of completed projects AS A Site Agent / Contracts Manager; <p>FAILURE TO PROVIDE CERTIFIED DOCUMENTS LISTED ABOVE = 0 Points.</p> <p>Note: The Site Agent or Contracts Manager with the Highest number of years' experience, will be utilized for evaluation purposes.</p> <p>5 to 7 Years experience in the construction industry as a site agent or contracts manager (4 Weight = 1 Point)</p> <p>More than 7 but less or equal to 9 Years experience in the construction industry as a site agent or contracts manager (8 Weight = 2 Points)</p> <p>More than 9 but less or equal to 11 Years experience in the construction industry as a site agent or contracts manager (12 Weight = 3 Points)</p> <p>More than 11 but less or equal to 13 Years experience in the construction industry as a site agent or contracts manager (16 Weight = 4 Points)</p> <p>More than 13 years' experience in the construction industry as a site agent or contracts manager (20 Weight = 5 Points)</p>	<p>20</p>

CRITERIA 5 - QUALIFICATION	
Provide ORIGINALLY certified proof of qualification(s) in the built environment for the Site Agent or Contracts Manager	
Trade Test - (2 Weight = 1 Point) NQF Level 5 (Higher Certificate) - (4 Weight = 2 Points) NQF Level 6 (Diploma) - (6 Weight = 3 Points) NQF Level 7 (Degree) - (8 Weight = 4 Points) NQF Level 8 or Higher (Honours or Higher) - (10 Weight = 5 Points)	10
Total	100 Points

(Weights for functionality must add up to 100. Weightings will be multiplied by the scores allocated during the evaluation process to arrive at the total functionality points)

Minimum functionality score to qualify for further evaluation:	70
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(Total minimum qualifying score for functionality is 50 Percent, any deviation below or above the 50 Percent, provide motivation below)

This is to ensure that a competent and a well balanced contractor in terms on the functionality requirements is selected to execute the work.

3. THE FOLLOWING EVALUATION METHOD FOR RESPONSIVE BIDS WILL BE APPLICABLE:

<input type="checkbox"/> Method 1 (Financial offer)	<input checked="" type="checkbox"/> Method 2 (Financial and Preference offer)
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3.1. Indicate which preference points scoring system is applicable for this bid:

<input checked="" type="checkbox"/> 80/20 Preference points scoring system	<input type="checkbox"/> 90/10 Preference points scoring system	<input type="checkbox"/> Either 80/20 or 90/10 Preference points scoring system
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4. RESPONSIVENESS CRITERIA

4.1. Indicate substantive responsiveness criteria applicable for this tender. Failure to comply with the criteria stated hereunder shall result in the tender offer being disqualified from further consideration:

1	<input checked="" type="checkbox"/>	Only those tenderers who satisfy the eligibility criteria stated in the Tender Data may submit tenders.
2	<input checked="" type="checkbox"/>	Tender offer must be properly received on the tender closing date and time specified on the invitation, completed either electronically (if issued in electronic format), or by writing legibly in non-erasable ink. (All as per Standard Conditions of Tender).
3	<input checked="" type="checkbox"/>	Use of correction fluid is prohibited.
4	<input checked="" type="checkbox"/>	Submission of a signed bid offer as per the DPW-07 (EC).
5	<input checked="" type="checkbox"/>	Submission of DPW-09 (EC): Particulars of Tenderer's Projects.
6	<input checked="" type="checkbox"/>	Bidders must comply with DPW-21 (EC): Record of Addenda to tender documents, if any.
7	<input checked="" type="checkbox"/>	Submission of DPW-16 signed by the authorised official and completion of bid briefing attendance register. The complexity, order of work, working times and access to site are compulsory in order to ensure that the contractor prices accordingly. Moreover, the tender documents that the department is using have changed and thus make it imperative for the bidder to attend the briefing.
8	<input checked="" type="checkbox"/>	The tenderer shall submit his fully priced Bills of Quantities / Lump Sum Document (complete document inclusive of all parts) together with his tender.
9	<input type="checkbox"/>	The tenderer shall submit his fully priced and completed sectional summary- and final summary pages with the tender.
10	<input type="checkbox"/>	Specify other responsiveness criteria
11	<input type="checkbox"/>	Specify other responsiveness criteria
12	<input type="checkbox"/>	Specify other responsiveness criteria
13	<input type="checkbox"/>	Specify other responsiveness criteria
14	<input type="checkbox"/>	Specify other responsiveness criteria
15	<input type="checkbox"/>	Specify other responsiveness criteria

4.2. Indicate administrative requirements applicable for this tender. Tenderers may be required to submit the below documents where applicable.

The Employer reserves the right to request further information regarding the undermentioned criteria. Failing to submit further clarification and/or documentation within seven (7) calendar days from request or as specifically indicated, will disqualify the tender offer from further consideration.

1	<input checked="" type="checkbox"/>	Any correction to be initialled by the person authorised to sign the tender documentation as per PA 15.1 or PA 15.2 resolution of board/s of directors / or PA15.3 Special Resolution of Consortia or JV's.
2	<input checked="" type="checkbox"/>	Submission of applicable (PA-15.1, PA-15.2, PA-15.3): Resolution by the legal entity, or consortium / joint venture, authorising a dedicated person(s) to sign documents on behalf of the firm / consortium / joint venture.
3	<input checked="" type="checkbox"/>	All parts of tender documents submitted must be fully completed in ink and signed where required.
4	<input checked="" type="checkbox"/>	Submission of (PA-11): Bidder's disclosure
5	<input checked="" type="checkbox"/>	Submission of PA-16.1 (EC): Ownership Particulars
6	<input checked="" type="checkbox"/>	Submission of documentation relating to risk assessment criteria as contained in C 2.1 of DPW-03 Tender Data.
7	<input checked="" type="checkbox"/>	Submission of (PA 40): Declaration of Designated Groups.
8	<input checked="" type="checkbox"/>	Submission of proof of Registration on National Treasury's Central Supplier Database (CSD). Insert the Supplier Registration Number on the form of offer, including proposed sub-contractors if any
9	<input checked="" type="checkbox"/>	Data provided by the tenderer in Part 2 of DPW-04 Contract Data (JBCC 2018) or DPW-05 Contract Data (GCC 2015) whichever applicable to be fully completed.
10	<input checked="" type="checkbox"/>	The tenderer shall submit his fully priced Bills of Quantities (complete document inclusive of all parts) within 14 calendar days from request.
11	<input checked="" type="checkbox"/>	Upon request, submission of fingerprints obtainable from local SAPS including any other additional documentation and information required for vetting purposes.
12	<input checked="" type="checkbox"/>	Upon request, submission of a fully completed security clearance application form with supporting documentation and information as required. The security clearance form will be provided by the Employer for projects requiring a security clearance.
13	<input type="checkbox"/>	Specify other responsiveness criteria
14	<input type="checkbox"/>	Specify other responsiveness criteria
15	<input type="checkbox"/>	Specify other responsiveness criteria
16	<input type="checkbox"/>	Specify other responsiveness criteria
17	<input type="checkbox"/>	Specify other responsiveness criteria
18	<input type="checkbox"/>	Specify other responsiveness criteria

4.3. Indicate administrative requirements applicable for specific goals, Tenderers will not be required to submit the below document if not provided in the original tender proposals, Failure to comply with the criteria stated hereunder shall result in the tenderer not allocated points for specific goals.

1	<input checked="" type="checkbox"/>	Submission of (PA-16): Preference Points Claim Form in terms of the Preferential Procurement Regulations 2022
2	<input checked="" type="checkbox"/>	A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Certificate issued by a SANAS accredited service provider

5. METHOD TO BE USED TO CALCULATE POINTS FOR SPECIFIC GOALS:

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5.1. For procurement transaction with rand value greater than R1 Million and up to R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 1 below are applicable.

Table 1

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	<p>Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)</p>	2	<ul style="list-style-type: none"> Official Municipal Rates Statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Any account or statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (Mandatory)	4	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. <p>and</p> <ul style="list-style-type: none"> Medical Certificate indicating that the disability is permanent. <p>Or</p> <ul style="list-style-type: none"> South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. <p>Or</p> <p>National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).</p>

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

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5.	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	<ul style="list-style-type: none"> ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
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☐ **8.2. For procurement transaction with rand value greater than R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 2 below are applicable.**

NB. The use of one of goal numbers' 4 or 5 is mandatory. The BSC must select either one of the two, but not both.

Table 2

Serial No	Specific Goals	Preference Points Allocated out of 10	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	4	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	<ul style="list-style-type: none"> Official Municipal Rates Statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Any account or statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (mandatory)	2	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4. <input type="checkbox"/>	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. <p>and</p> <ul style="list-style-type: none"> Medical Certificate indicating that the disability is permanent.

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

	OR			Or <ul style="list-style-type: none"> South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).
		5. <input type="checkbox"/>	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2 <ul style="list-style-type: none"> ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

Black people mean Africans, Coloureds and Indians, who - (a) are citizens of the Republic of South Africa by birth or descent; or (b) became citizens of the Republic of South Africa by naturalisation - (i) before 27 April 1994; or (ii) on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date. (BROAD-BASED BLACK ECONOMIC EMPOWERMENT ACT No 25899, 2003 of 9 JANUARY 2004).

6. BID EVALUATION METHOD

This bid will be evaluated according to the preferential procurement model in the PPPFA: (Tick applicable preference point scoring system)

<input checked="" type="checkbox"/> 80/20 Preference points scoring system	<input type="checkbox"/> 90/10 Preference points scoring system	<input type="checkbox"/> Either 80/20 or 90/10 Preference points scoring system
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In case where below/above R 50 000 000 is selected, the lowest acceptable tender will be used to determine the applicable preference point system.

7. ELIGIBILITY IN RESPECT OF RISK TO THE EMPLOYER:

Standard risk management assessment criteria in respect of tenders received for routine projects in the engineering and construction works environments:

Tender offers will be evaluated by an Evaluation Committee based on the technical and commercial risk criteria listed hereunder. Each criterion carries the same weight / importance and will be evaluated individually based on reports presented to the Bid Evaluation Committee by the Professional Team appointed on the project. A tender offer will be declared non-responsive and removed from any further evaluation if any one criterion is found to present an unacceptable risk to the Employer.

In order for the evaluation reports to be prepared by the Professional Team, the Tenderer is obliged to provide comprehensive information on form DPW-09 (EC). Failure to complete the said form will cause the tender to be declared non-responsive and removed from any further consideration. The Employer reserves the right to request additional information over and above that which is provided by the Tenderer on said form. The information must be provided by the Tenderer within the stipulated time as determined by the Bid Evaluation Committee, failing which the tender offer will *mutatis mutandis* be declared non-responsive.

7.1 Technical risks:

Criterion 1: Experience on comparable projects during the past 10 years.

The tendering Service Provider's experience on comparable projects during the past 10 years. The number of current and previous comparable projects performed by the Tenderer as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer will be *mutatis mutandis* declared non-responsive.

Aspects to be regarded as "comparable" includes (but may be extended according to circumstances): size of projects (measured against monetary value or other project quantifying parameters), nature of projects (building, engineering, high/low rise, etc.), locality/area of execution (site-specific influences, knowledge of local conditions, etc.), complexity of project, projects for similar client department irrespective of end purpose of buildings/facilities created or in progress of being created and time scales of projects (normal, fast track, etc.) and stage of its/their development.

Criterion 2: Contractual commitment and quality of performance on comparable projects during the past 10 years.

Adherence to contractual commitments and quality of performance of comparable current and previous projects performed by the Tenderer during the past 10 years as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer be *mutatis mutandis* declared non-responsive.

Aspects to be considered include, but are not limited to the following:

1. The level of progress on current projects in relation to the project programme or, if such is not available/applicable, to the contractual construction period in general;
2. The degree to which previous projects have been completed within the contractual completion periods and/or extensions thereto, and the extend of penalties imposed;
3. Project performance: time management & programming of works, timeous ordering of materials and appointment of subcontractors;
4. Financial management: payment to suppliers and cash flow problems;
5. Quality of workmanship: extent of reworks and timeous attention to remedial works;
6. Personnel resources: suitably qualified and experienced, turnover in site staff and labour force, specifically site manager and foreman;
7. Personnel management: extent of labour disputes and ability to resolving labour disputes amicably;
8. Sub-contractors: extent of turnover in subcontractors, general liaison and payment problems experienced;
9. Contract administration: contractual aspects such as complying to laws and regulations, insurances, security, submission of required documentation timeously, reaction to written contract instructions, appointments of subcontractors, etc. as can generally be expected in standard/normal conditions of contract.
10. Health & Safety: adherence to regulations and compliance, and number of transgressions & serious incidents.
11. Plant & equipment: sufficient resources on site and in time.
12. Delays: extent of causing delays, submission of claims timeously, and abuse of or exaggerated delay claims.
13. Final account: extent to which the contractor assisted in finalising the final account.

Criterion 3: Suitably qualified and appropriately experienced human resources

Allocation of suitably qualified and appropriately experienced human resources, both in respect of principals and/or other staff (contract manager, site agent, site foreman including other professional, technical and/or administrative) of the tendering Service Provider to the project, as proof that the tendering Service Provider will be able to react/respond appropriately to the Services required herein. The Company Organogram with CV's and certified ID's of all principals and employed workforce as well as proof of Professional Registration

will be verified. Current and future workload of the tenderer in relation to capacity and capability will also be considered. The tenderer should demonstrate that he or she possesses the necessary professional and technical qualifications and -competence in relation to the scope of work and work to be undertaken.

Criterion 4: Attendance of compulsory bid clarification meeting, if applicable

If applicable, submission of confirmation of DPW-16.1 (PSB) attendance of compulsory bid clarification meeting or proof of attending the compulsory virtual meeting by a suitably qualified and experienced representative of the tenderer in terms of PA-04 (EC): Notice and Invitation to Tender.

7.2 Commercial risks:

The financial viability assessment evaluates the risk over the life of the construction period, as to whether the tenderer will be able to deliver the goods and services which are specified in the contract and / or be able to fulfil guarantees or warranties provided for in the contract in order to complete the project successfully for the amount tendered.

Aspects to be considered include but are not limited to, the respective rates tendered, bank rating, financial capability and capacity whether the tenderer has or has access to sufficient financial resources to deliver the goods or services described in the tender documentation (including fulfilling any guarantees or warranty claims), whether the tenderer is not subject to any current or impending legal action (either formal proceedings or notification of legal action) which could impact on the financial standing of the tenderer or the delivery of the goods or services, financial report from auditors as proof of current liquidity, and company or any parent company or investor guarantee/s and financial statements.

8. CONTRACT PARTICIPATION GOAL TARGETS AND CIDB B.U.I.L.D. PROGRAMME

The contractor shall achieve in the performance of the contract the following Contract Participation Goals (CPGs) as described in PG-01.2 (EC): Scope of Work and PG-02.2 (EC): Pricing Assumptions and in accordance with the feasibility study, which forms part of the specifications in the CPG Section of the Specification of this contract.

(a)	Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Not applicable
(b)	Minimum Targeted Local Building Material Suppliers Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Applicable
(c)	Minimum Targeted Local Labour Skills Development Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Not applicable
(d)	cidb BUILD Programme: Minimum Targeted Enterprise Development Contract Participation Goal in accordance with the cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Applicable

(e)	cidb BUILD Programme: Minimum Targeted Local Labour Skills Development Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 48491 of 28 April 2023 and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.– Condition of Contract	Applicable
(f)	DPWI National Youth Service training and development programme (NYS) – Condition of Contract.	Applicable
(g)	Labour Intensive Works – Condition of Contract.	Applicable
(h)		Select
(i)		Select

9. COLLECTION OF TENDER DOCUMENTS

- ☒ Bid documents are available for free download on e-Tender portal www.etenders.gov.za
- ☒ Alternatively; Bid documents may be collected during working hours at the following address
Department Public Works, PRD Building, Cnr Durham and Sutherland Street,
Mthatha. A non-refundable bid deposit of R 700 is payable (cash only) on collection of the bid documents.

10. SITE INSPECTION MEETING

A pre-tender site inspection meeting will **be** held in respect of this tender.
Attendance of said pre- tender site inspection meeting is **compulsory**

The particulars for said pre- tender site inspection meeting or virtual bid clarification / site inspection meeting. are:

Venue:	Idutywa Magistrate Court Building, Main Road, Idutywa, Eastern Cape		
Virtual meeting link:	N/A		
Date:	14 April 2025	Starting time:	11H00

11. ENQUIRIES

11.1. Technical enquiries may be addressed to:

DPWI Project Manager	Ms Asive Lomntu	Telephone no:	047-502 7030
Cellular phone no	066 335 5405	Fax no:	N/A
E-mail	asive.lomntu@dpw.gov.za		

11.2. SCM enquiries may be addressed to:

SCM Official	Ms U. Mabusela	Telephone no:	047-502 7049
Cellular phone no	N/A	Fax no:	N/A
E-mail	unathi.mabusela@dpw.gov.za		

12. DEPOSIT / RETURN OF TENDER DOCUMENTS

Telegraphic, telephonic, telex, facsimile, electronic and / or late tenders will not be accepted.

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

All tenders must be completed in non-erasable ink and submitted on the official forms – (forms not to be re-typed).

<p>Tender documents may be posted to:</p> <p>The Director-General Department of Public Works and Infrastructure Private Bag X 5007 Mthatha 5099</p> <p>Attention: Procurement section: Room</p>	OR	<p>Deposited in the tender box at:</p> <p>Department of Public Works and Infrastructure PRD Building, 5th Floor Foyer Cnr.Durham and Sutherland Street, Mthatha Tender Box</p>
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Invitation to Bid: PA-32

PART A
INVITATION TO BID (EXEMPTION)

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/ PUBLIC ENTITY)					
BID NUMBER:	MTH01/2025	CLOSING DATE:	29 April 2025	CLOSING TIME:	11:00am
DESCRIPTION	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)					
PRD BUILDING, CNR. DURHAM AND SUTHERLAND STREET, MTHATHA – (5TH FLOOR ENTRANCE FOYER)					
OR POSTED TO:					
PRIVATE BAG X5007, MTHATHA, 5099					
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:	
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ANSWER PART B:3 BELOW]	
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			TOTAL BID PRICE ('ALL APPLICABLE TAXES)	XXXXXX	
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:			TECHNICAL INFORMATION MAY BE DIRECTED TO:		
DEPARTMENT/ PUBLIC ENTITY	NDPWI		CONTACT PERSON	Thandile Xani	
CONTACT PERSON	Sibonelo Xulu		TELEPHONE NUMBER	047 502 7115	
TELEPHONE NUMBER	012 492 3141		FACSIMILE NUMBER	N/A	
FACSIMILE NUMBER	N/A		E-MAIL ADDRESS	Thandile.xani@dpw.gov.za	
E-MAIL ADDRESS	Sibonelo.xulu@dpw.gov.za		066 248 9147		

Invitation to Bid: PA-32

PART B TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:
<p>1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.</p> <p>1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED-(NOT TO BE RE-TYPED) OR ONLINE</p> <p>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).</p> <p>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.</p>
2. TAX COMPLIANCE REQUIREMENTS
<p>2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.</p> <p>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.</p> <p>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.</p> <p>2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS TOGETHER WITH THE BID.</p> <p>2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE PROOF OF TCS / PIN / CSD NUMBER.</p> <p>2.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.</p>
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS
<p>3.1. IS THE BIDDER A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>3.2. DOES THE BIDDER HAVE A BRANCH IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>3.3. DOES THE BIDDER HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>3.4. DOES THE BIDDER HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>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.</p>

Note Well:

- | |
|--|
| <p>a) In respect of non VAT vendors the bidders may not increase the bid price under Section 67(1) of the Value Added Tax Act of 1991 where the relevant transaction would become subject to VAT by reason of the turnover threshold being exceeded and the bidder becomes liable for VAT.</p> <p>b) All delivery costs must be included in the bid price, for delivery at the prescribed destination.</p> <p>c) The price that appears on this form is the one that will be considered for acceptance as a firm and final offer.</p> <p>d) The grand total in the pricing schedule(s), inclusive of VAT, attached to the bid offer must correlate and be transferred to this form (PA32).</p> <p>e) Where there are inconsistencies between the grand total price offer in the pricing schedule(s) and the PA32 price offer, the price offer on the PA32 shall prevail and deemed to be firm and final. No further correspondence shall be entered into in this regard.</p> |
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¹ All applicable taxes" includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS 054991 & 056942

T.1.2: Tender Data

DPW-03 (EC): TENDER DATA

Project title:	<i>IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY</i>
Reference no:	

Tender / Quotation no:	MTH01/2025	Closing date:	<i>29 April 2025</i>
Closing time:	<i>11:00am</i>	Validity period:	<i>12 Weeks (84 Calender days)</i>

Clause number:	
	<p>The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Construction Procurement as per Government Notice No. 423 published in Government Gazette No. 42622 of 8 August 2019 and as amended from time to time. (see www.cidb.org.za).</p> <p>The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically 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.</p> <p>Each item of data given below is cross-referenced to the clause marked "C" in the above mentioned Standard Conditions of Tender.</p>
C.1.1	The employer is the Government of the Republic of South Africa in its Department of Public Works and Infrastructure.
C.1.2	<p>For this contract the three volume approach is adopted.</p> <p>This procurement document has been formatted and compiled under the headings as contained in the CIDB's "Standard for Uniformity in Construction Procurement."</p> <p>The three volume procurement document issued by the employer comprises the following:</p> <p>Volume 1: Tendering procedures T1.1 - Notice and invitation to tender (PA-04 EC) T1.2 - Tender data (DPW-03 EC)</p> <p>Volume 2: Returnable documents T2.1 - List of returnable documents (PA-09 EC) C1.1 - Form of offer and acceptance (DPW-07 EC) C1.2 – Contract Data T2.2 - Returnable schedules</p> <p>Volume 3: Contract Part C1: Agreement and contract data C1.2 - Contract data (Part 1: Data provided by employer) (DPW-04 EC or DPW-05 EC) C1.3 - Form of guarantee (DPW-10.1 EC / DPW-10.3EC or DPW-10.2 EC/DPW-10.4 EC)</p> <p>Part C2: Pricing data C2.1 - Pricing Assumptions (PG-02.2 EC or PG-02.1EC) C2.2 - Bills of Quantities / Lump sum document (if not a returnable document)</p> <p>Part C3: Scope of work C3 - Scope of work (PG-01.2 EC or PG-01.1EC)</p> <p>Part C4: Site information C4 - Site information (PG-03.2 EC or PG03.1EC)</p>

Tender no: MTH01/2025

C.1.4	The Employer's agent is:	
	Name:	<i>Ms Asive Lomntu</i>
	Capacity:	<i>Departmental Project Manager</i>
	Address:	<i>DPW, PRD Building, Crn. Durham and Sutherland Street, Mthatha</i>
	Tel:	<i>047 502 7030</i>
	Fax:	<i>N/A</i>
	E-mail:	<i>Asive.Lomntu@dpw.gov.za</i>
C.2.1 C.3.11	<p>A. <u>ELIGIBILITY IN RESPECT OF CIDB REGISTRATION:</u></p> <p>The following tenderers who are registered with the CIDB, or are *capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated (* tenderers who are capable of being so registered, or who have applied for registration but have not yet received confirmation of such registration, must provide, <u>with this tender</u>, acceptable documentary proof thereof):</p> <ul style="list-style-type: none"> a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a 7 GB or 7 GB** class of construction work; and b) contractors registered as potentially emerging enterprises with the CIDB who are registered in one contractor grading designation lower than that required in terms of a) above: Not applicable <p>Joint ventures are eligible to submit tenders provided that:</p> <ul style="list-style-type: none"> 1. every member of the joint venture is registered with the CIDB; 2. the lead partner has a contractor grading designation in the 7 GB or 7 GB** class of construction work; and 3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations for a 7 GB or 7 GB** class of construction work <p>** Delete "or select tender value range select class of construction works" where only one class of construction works is applicable</p>	
	<p>A contract will be entered into with a tenderer who has in his employ management and supervisory staff satisfying the requirements of the scope of work for labour intensive competencies for supervisory and management staff: Applicable</p>	

Tender no: MTH01/2025

C. FUNCTIONALITY WEIGHTING APPLICABLE TO THIS BID:

Note: Failure to meet minimum functionality score will result in the tenderer being disqualified.

Functionality Criteria	Weighting Factor
<p>CRITERIA 1 - COMPANY EXPERIENCE</p> <p>The bidder to list successfully completed and comparable condition-based maintenance, repair and renovations or refurbishments related projects to the value threshold equal or above R20 000 000 per project and completed within the past 10 years (Up to and including 2015) on the DPW-09, namely:</p> <ul style="list-style-type: none"> Name of Employer; Contact number; Contract sum; Contractual commencement date; Contractual completion date, and Certificate of practical completion clearly stipulating date of completion. <p>Failure to provide complete information on this form or to provide information regarding the bidder's experience will lead to the bidder not scoring points in this criteria. Bidders must also note that failure to submit CERTIFICATE OF PRACTICAL COMPLETION will lead to the bidder not scoring points in this criteria.</p> <p>Completed similar construction project to a value between R20 million and 35 million. (5 Weight PER PROJECT)</p> <p>Completed similar construction project to a value above R35 million and up to R50 million. (6 Weight PER PROJECT)</p> <p>Completed similar construction project to a value above R50 million. (10 Weight PER PROJECT)</p>	30
<p>CRITERIA 2 - REFERENCE LETTERS</p> <p>Provide signed reference letters from Clients, Principal Agents, other Consultants or Project Managers confirming your company's appointment, performance and recommending your company's performance on the projects on CRITERIA 1 LISTED ABOVE. (Maximum of 5 letters)</p> <p>Total score per reference letter will be used and weighting is to be rounded to the nearest whole number.</p> <p>Each reference letter is scored out of a maximum weight of 6</p> <p>30 Weight = 5 Points (NB: ALL FIGURES WILL BE ROUNDED OFF TO THE NEAREST WHOLE NUMBER)</p>	30

	<p>CRITERIA 3 - FINANCIAL CAPACITY</p> <p>Submission of a valid bank rating document from your Banking institution with a minimum threshold of R5 million over a (6) months.</p> <p>A bank rating should contain only one bank code and not a combination of two or more. A bank rating letter with more than one code will not be considered.</p> <p>A bank rating letter with an amount lower than the threshold value will not earn points.</p> <p>A Bank rating/Code of “E”. (2 Weight = 1 Point)</p> <p>A Bank rating/Code of “D”. (4 Weight = 2 Points)</p> <p>A Bank rating/Code of “C”. (6 Weight = 3 Points)</p> <p>A Bank rating/Code of “B”. (8 Weight = 4 Points)</p> <p>A Bank rating/Code of “A”. (10 Weight = 5 Points)</p>	<p>10</p>
	<p>CRITERIA 4 - SITE AGENT EXPERIENCE</p> <p>Provide the following information for Site Agent or Contracts Manager who will be employed full time on this project:</p> <ul style="list-style-type: none"> • A detailed Curriculum Vitae; • Originally certified copies of ID; • Originally certified copies of built environment academic qualifications; • A summary of completed projects AS A Site Agent / Contracts Manager; <p>FAILURE TO PROVIDE CERTIFIED DOCUMENTS LISTED ABOVE = 0 Points.</p> <p>Note: The Site Agent or Contracts Manager with the Highest number of years’ experience, will be utilized for evaluation purposes.</p> <p>5 to 7 Years experience in the construction industry as a site agent or contracts manager (4 Weight = 1 Point)</p> <p>More than 7 but less or equal to 9 Years experience in the construction industry as a site agent or contracts manager (8 Weight = 2 Points)</p> <p>More than 9 but less or equal to 11 Years experience in the construction industry as a site agent or contracts manager (12 Weight = 3 Points)</p> <p>More than 11 but less or equal to 13 Years experience in the construction industry as a site agent or contracts manager (16 Weight = 4 Points)</p>	<p>20</p>

	<p>More than 13 years' experience in the construction industry as a site agent or contracts manager (20 Weight = 5 Points)</p> <p>CRITERIA 5 - QUALIFICATION</p> <p>Provide ORIGINALLY certified proof of qualification(s) in the built environment for the Site Agent or Contracts Manager</p> <p>Trade Test - (2 Weight = 1 Point) NQF Level 5 (Higher Certificate) - (4 Weight = 2 Points) NQF Level 6 (Diploma) - (6 Weight = 3 Points) NQF Level 7 (Degree) - (8 Weight = 4 Points) NQF Level 8 or Higher (Honours or Higher) - (10 Weight = 5 Points)</p> <p>Total</p>	<p>10</p> <p>100 Points</p>												
<p><i>(Weightings will be multiplied by the scores allocated during the evaluation process to arrive at the total functionality points)</i></p>														
<p>Minimum functionality score to qualify for further evaluation:</p>		<p>70</p>												
<input type="checkbox"/>	<p>D. METHOD TO BE USED TO CALCULATE POINTS FOR SPECIFIC GOALS</p> <p>D1. For procurement transaction with rand value greater than R2 000,00 and up to R1 Million (Inclusive of all applicable taxes) the specific goals listed below are applicable.</p> <p>Table 1</p> <table border="1"> <thead> <tr> <th>Serial No</th> <th>Specific Goals</th> <th>Preference Points Allocated out of 20</th> <th>Documentation to be submitted by bidders to validate their claim</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>An EME or QSE which is at least 51% owned by black people (Mandatory)</td> <td>10</td> <td> <ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. </td> </tr> <tr> <td>2.</td> <td>Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)</td> <td>2</td> <td> <ul style="list-style-type: none"> Official Municipal Rates Statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Any account or statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. </td> </tr> </tbody> </table>		Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim	1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. 	2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	<ul style="list-style-type: none"> Official Municipal Rates Statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Any account or statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder.
Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim											
1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. 											
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	<ul style="list-style-type: none"> Official Municipal Rates Statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Any account or statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. 											

				Or
				<ul style="list-style-type: none">Lease Agreement which is in the name of the bidder.
3.	An EME or QSE which is at least 51% owned by black women (Mandatory)	4		<ul style="list-style-type: none">SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE which is at least 51% owned by black people with disability (Mandatory)	2		<ul style="list-style-type: none">SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. <p>and</p> <ul style="list-style-type: none">Medical Certificate indicating that the disability is permanent. <p>Or</p> <ul style="list-style-type: none">South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. <p>Or</p> <ul style="list-style-type: none">National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).
5.	An EME or QSE which is at least 51% owned by black youth (Mandatory)	2		<ul style="list-style-type: none">ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

☒ **D2. For procurement transaction with rand value greater than R1 Million and up to R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 1 below are applicable.**

Table 2

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	10	<ul style="list-style-type: none">SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	<ul style="list-style-type: none">Official Municipal Rates Statement which is in the name of the bidder <p>Or</p> <ul style="list-style-type: none">Any account or statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none">Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder <p>Or</p>

				<ul style="list-style-type: none"> Lease Agreement which is in the name of the bidder. 	
	3.	An EME or QSE or any entity which is at least 51% owned by black women (Mandatory)	4	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. 	
	4.	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. <p>and</p> <ul style="list-style-type: none"> Medical Certificate indicating that the disability is permanent. <p>Or</p> <ul style="list-style-type: none"> South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. <p>Or</p> <p>National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).</p>	
	5.	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	<ul style="list-style-type: none"> ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. 	

☐

D3. For procurement transaction with rand value greater than R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 2 below are applicable.

NB. The use of one of goal numbers' 4 or 5 is mandatory. The BSC must select either one of the two, but not both.

Table 3

Serial No	Specific Goals	Preference Points Allocated out of 10	Documentation to be submitted in bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	4	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

	2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	<ul style="list-style-type: none"> Official Municipal Rates Statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Any account or statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Lease Agreement which is in the name of the bidder. 	
	3.	An EME or QSE or any entity which is at least 51% owned by black women (mandatory)	2	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. 	
	4. <input type="checkbox"/>	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. <p>and</p> <ul style="list-style-type: none"> Medical Certificate indicating that the disability is permanent. <p>Or</p> <ul style="list-style-type: none"> South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. <p>Or</p> <p>National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).</p>	
	OR				
	5. <input type="checkbox"/>	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	<ul style="list-style-type: none"> ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. 	

Black people mean Africans, Coloureds and Indians, who - (a) are citizens of the Republic of South Africa by birth or descent; or (b) became citizens of the Republic of South Africa by naturalisation - (i) before 27 April 1994; or (ii) on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date. (BROAD-BASED BLACK ECONOMIC EMPOWERMENT ACT No 25899, 2003 of 9 JANUARY 2004).

Tender no: MTH01/2025

E. ELIGIBILITY IN RESPECT OF RISK TO EMPLOYER:

Standard risk management assessment criteria in respect of tenders received for routine projects in the engineering and construction works environments:

Tender offers will be evaluated by an Evaluation Committee based on the technical and commercial risk criteria listed hereunder. Each criterion carries the same weight / importance and will be evaluated individually based on reports presented to the Bid Evaluation Committee by the Professional Team appointed on the project. A tender offer will be declared non-responsive and removed from any further evaluation if any one criterion is found to present an unacceptable risk to the Employer.

In order for the evaluation reports to be prepared by the Professional Team, the Tenderer is obliged to provide comprehensive information on form DPW-09 (EC). Failure to complete the said form will cause the tender to be declared non-responsive and removed from any further consideration. The Employer reserves the right to request additional information over and above that which is provided by the Tenderer on said form. The information must be provided by the Tenderer within the stipulated time as determined by the Bid Evaluation Committee, failing which the tender offer will *mutatis mutandis* be declared non-responsive.

E.1 Technical risks:

Criterion 1: Experience on comparable projects during the past 10 years.

The tendering Service Provider's experience on comparable projects during the past 10 years. The number of current and previous comparable projects performed by the Tenderer as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer will be *mutatis mutandis* declared non-responsive.

Aspects to be regarded as "comparable" includes (but may be extended according to circumstances): size of projects (measured against monetary value or other project quantifying parameters), nature of projects (building, engineering, high/low rise, etc.), locality/area of execution (site-specific influences, knowledge of local conditions, etc.), complexity of project, projects for similar client department irrespective of end purpose of buildings/facilities created or in progress of being created and time scales of projects (normal, fast track, etc.) and stage of its/their development.

Criterion 2: Contractual commitment and quality of performance on comparable projects during the past 10 years.

Adherence to contractual commitments and quality of performance of comparable current and previous projects performed by the Tenderer on comparable projects during the past 10 years as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer be *mutatis mutandis* declared non-responsive.

Aspects to be considered include, but are not limited to the following:

1. The level of progress on current projects in relation to the project programme or, if such is not available/applicable, to the contractual construction period in general;
2. The degree to which previous projects have been completed within the contractual completion periods and/or extensions thereto, and the extend of penalties imposed;

Tender no: MTH01/2025

	<ol style="list-style-type: none"> 3. Project performance: time management & programming of works, timeous ordering of materials and appointment of subcontractors; 4. Financial management: payment to suppliers and cash flow problems; 5. Quality of workmanship: extent of reworks and timeous attention to remedial works; 6. Personnel resources: suitably qualified and experienced, turnover in site staff and labour force, specifically site manager and foreman; 7. Personnel management: extent of labour disputes and ability to resolving labour disputes amicably; 8. Sub-contractors: extent of turnover in subcontractors, general liaison and payment problems experienced; 9. Contract administration: contractual aspects such as complying to laws and regulations, insurances, security, submission of required documentation timeously, reaction to written contract instructions, appointments of subcontractors, etc. as can generally be expected in standard/normal conditions of contract. 10. Health & Safety: adherence to regulations and compliance, and number of transgressions & serious incidents. 11. Plant & equipment: sufficient resources on site and in time. 12. Delays: extent of causing delays, submission of claims timeously, and abuse of or exaggerated delay claims. 13. Final account: extent to which the contractor assisted in finalising the final account. <p>Criterion 3: Suitably qualified and appropriately experienced human resources</p> <p>Allocation of suitably qualified and appropriately experienced human resources, both in respect of principals and/or other staff (contract manager, site agent, site foreman including other professional, technical and/or administrative) of the tendering Service Provider to the project, as proof that the tendering Service Provider will be able to react/respond appropriately to the Services required herein. The Company Organogram with CV's and certified ID's of all principals and employed workforce as well as proof of Professional Registration will be verified. Current and future workload of the tenderer in relation to capacity and capability will also be considered. The tenderer should demonstrate that he or she possesses the necessary professional and technical qualifications and -competence in relation to the scope of work and work to be undertaken.</p> <p>Criterion 4: Attendance of compulsory bid clarification meeting, if applicable</p> <p>If applicable, submission of confirmation of DPW-16.1 (PSB) attendance of compulsory bid clarification meeting or proof of attending the compulsory virtual meeting by a suitably qualified and experienced representative of the tenderer in terms of PA-04 (EC): Notice and Invitation to Tender.</p> <p>E.2 Commercial risks:</p> <p>The financial viability assessment evaluates the risk over the life of the construction period, as to whether the tenderer will be able to deliver the goods and services which are specified in the contract and / or be able to fulfil guarantees or warranties provided for in the contract in order to complete the project successfully for the amount tendered.</p> <p>Aspects to be considered include but are not limited to, the respective rates tendered, bank rating, financial capability and capacity whether the tenderer has or has access to sufficient financial resources to deliver the goods or services described in the tender documentation (including fulfilling any guarantees or warranty claims), whether the tenderer is not subject to any current or impending legal action (either formal proceedings or notification of legal action) which could impact on the financial standing of the tenderer or the delivery of the goods or services, financial report from auditors as proof of current liquidity, and company or any parent company or investor guarantee/s and financial statements.</p>
C.2.7	For particulars regarding a pre-tender site inspection meeting, see Notice and Invitation to Tender T1.1

Tender no: MTH01/2025

C.2.12	<p>If a tenderer wishes to submit an alternative tender offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements. A tenderer may submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. Provided that the tenderer's main tender offer is according to specification and would under normal circumstances be recommended for acceptance, his alternative tender offer may also be considered for the purpose of the award of the contract.</p> <p>Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.</p> <p>Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.</p> <p>The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.</p> <p>Alternative tender offer permitted: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
C.2.13.2	The list of Returnable Documents identifies which of the documents a tenderer must complete when submitting a tender offer. The tenderer must submit his tender offer by completing the Returnable Documents, signing the "Offer" section in the "Form of Offer and Acceptance" and delivering the Returnable Documents back to the Department.
C.2.13.5	The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are as per Notice and Invitation to Tender T1.1.
C.2.13.6 C.3.5	A two-envelope procedure will not be followed.
C.2.15	The closing time for submission of tender offers is as per Notice and Invitation to Tender T1.1.
C.2.16	The tender offer validity period is as per Notice and Invitation to Tender T1.1.
C2.16.3	Omit the wording of the last sentence for those projects which are subject to CPAP
C.2.18	<p>The tenderer will be required to submit his fully priced Bills of Quantities / Lump Sum Document (complete document inclusive of all parts):</p> <p><input checked="" type="checkbox"/> Together with his tender; or <input type="checkbox"/> The tenderer shall submit his fully priced and completed sectional summary- and final summary pages with the tender and thereafter submit the fully completed Bills of Quantities within fourteen (14) calendar days of the date requested to do so prior to the award of the contract.</p>
C.2.19	Access shall be provided for inspections, tests and analysis as may be required by the Employer.
C.3.4.1 C.3.4.2	The location for opening of the tender offers, immediately after the closing time thereof shall be at: 5th Floor Entrance Foyer, DPW, PRD Building, Cnr. Durham and Sutherland Street, Mthatha
C.3.8	The words "responsive tender" and "acceptable tender" shall be construed to have the same meaning.

Tender no: MTH01/2025

C.3.9.3	Omit the wording and replace with the following: “Notify the tenderer of all errors, omissions and/or rate imbalances that are identified in the tender offer and request the tenderer to, within a stipulated time, accept the total of prices as corrected in accordance with C.3.9.4.”
C.3.9.4	Omit the wording of the first sentence and replace with the following: “In cases where tender offers contain errors, omissions and/or rate imbalances, these are to be corrected as follows:”
C.3.9.4	Add sub paragraph c) to C.3.9.4, as follows: “c) If the tenderer does not accept the corrected tender offer, or cannot reach consensus with the Employer on a corrected tender offer, the tender is to be classified as not acceptable/non responsive and removed from further contention.”
C.3.11.1	The procedure for the evaluation of responsive tenders is Method 2: Financial Offer and Preference.
C.3.13	Add the following to sub paragraph a), as follows: The tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act, 2004 (Act No. 12 of 2004) as a person prohibited from doing business with the public sector;
C.3.17	Provide to the successful tenderer one copy of the signed contract document.



public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

TENDER NO: MTH01/2025

**IDUTYWA MAGISTRATES COURT: PLANNED
MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE
ENTIRE FACILITY**

VOLUME 1 – TENDERING PROCEDURES

VOLUME 2 – RETURNABLE DOCUMENTS (THIS DOCUMENT)

VOLUME 3 – THE CONTRACT

TENDER DOCUMENT

APRIL 2025

ISSUED BY:

DEPARTMENT OF PUBLIC WORKS
PRIVATE BAG X 5007
PRD BUILDING
MTHATHA
5099

PREPARED BY:

BISIWE VAN NIEKERK INC.
P.O.BOX 15546
BEACON BAY
EAST LONDON
5205

NAME OF TENDERER:



**IDUTYWA MAGISTRATES COURT: PLANED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
(WCS 054991 & 056942)**

CONTACT DETAILS

<p>Principal Agent: <u>NATIONAL DEPT PUBLIC WORKS & INFRASTRUCTURE</u></p> <p>Contact Person: Ms Asive Lomntu</p> <p>Tel : 047 – 502 7030</p> <p>Mobile: 066 335 5405</p> <p>E-mail : asive.lomntu@dpw.gov.za</p> <p>Address : Dept Public Works PRD Building, Cnr Durham and Sutherland Street, Mthatha</p>	<p>Architect: <u>INSTIKA ARCHITECTS (PTY) LTD</u></p> <p>Contact Person: Rob Gillard</p> <p>Tel : 043 – 748 2949</p> <p>Fax : 043 – 748 1702</p> <p>Mobile: 082 872 8748</p> <p>E-mail : rob@intsika.com</p> <p>Address : 73 Bonza Bay Road, Beacon Bay, East London, 5241</p>
<p>Quantity Surveyors: <u>BISIWE VAN NIEKERK INC.</u></p> <p>Contact Person: Darren Edwards</p> <p>Tel : 043 – 721 1043</p> <p>Fax : -</p> <p>Mobile: 083 651 7886</p> <p>E-mail : darren@bisiwe.co.za</p> <p>Address : Beacon Park, 21 Pell Street, Beacon Bay, East London, 5241</p>	<p>Civil Engineers: <u>BVI CONSULTING ENGS</u></p> <p>Contact Person: Werner de Lange</p> <p>Tel : 043 722 2738</p> <p>Fax : 086 604 9374</p> <p>Mobile : 082 578 0674</p> <p>E-mail : WernerDL@bvi.co.za</p> <p>Address : 56 Bonza Bay Road, Beacon Bay, East London, 5241</p>
<p>Electrical Engineers: <u>EVANS CONSULTING ENGS</u></p> <p>Contact Person: Jan Kleinhans</p> <p>Tel : 043 721 3192</p> <p>Fax : -</p> <p>Mobile: 082 731 7581</p> <p>E-mail : jan@evansconsulting.co.za</p> <p>Address : 17 Surrey Road, Vincent, East London, 5247</p>	<p>Mechanical Engineers: <u>EVANS CONSULTING ENGS</u></p> <p>Contact Person: Cedric Leach</p> <p>Tel : 043 721 3192</p> <p>Fax : -</p> <p>Mobile: 072 015 8373</p> <p>E-mail : cedric@evansconsulting.co.za</p> <p>Address : 17 Surrey Road, Vincent, East London, 5247</p>
<p>Structural Engineers: <u>BVI CONSULTING ENGS</u></p> <p>Contact Person: Werner de Lange</p> <p>Tel : 043 722 2738</p> <p>Fax : 086 604 9374</p> <p>Mobile : 082 578 0674</p> <p>E-mail : WernerDL@bvi.co.za</p> <p>Address : 56 Bonza Bay Road, Beacon Bay, East London, 5241</p>	<p>Health and Safety Agent: <u>SINDA AFRICA</u></p> <p>Contact Person: Nonkuthalo Tshaka</p> <p>Tel: 043 727 5091</p> <p>E-mail : ohs@sindafrica.co.za</p> <p>Address: Beacon Park, 21 Pell Street, Beacon Bay, East London, 5205</p>



public works
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Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

REFERENCE NO.

TENDER NO: MTH01/2025

**VOLUME 2
RETURNABLE DOCUMENTS**

NAME OF FIRM:

RETURNABLE DOCUMENT

IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY

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DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
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WCS: 054991 & 056942

T.2.1 List of Returnable Documents

PA-09 (EC): LIST OF RETURNABLE DOCUMENTS

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY		
Tender / Quote no:	MTH01/2025	Reference no:	
Receipt Number:			

1. RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

Note: Failure to submit the applicable documents will result in the tender offer being disqualified from further consideration.

Tender document name	Number of pages issued	Returnable document
Form of Offer and Acceptance (DPW-07 EC)	4 Pages	Yes
Declaration of Interest and Tenderer's Past Supply Chain Management Practices (PA-11)	4 Pages	Yes
Resolution of Board of Directors (PA-15.1) (<i>if applicable</i>)	1 Page	Yes
Resolution of Board of Directors to enter into Consortia or JV's (PA-15.2) (<i>if applicable</i>)	2 Pages	Yes
Special Resolution of Consortia or JV's (PA-15.3) (<i>if applicable</i>)	3 Pages	Yes
Preference points claim form in terms of the Preferential Procurement Regulations 2017 (PA – 16)	5 Pages	Yes
Certificate of independent Bid Determination (PA - 29)	4 Pages	Yes
Declaration Certificate for Local Production and Content for designated sectors (PA – 36 and Annexure/s C)		Yes
Fully completed Declaration of Designated Groups for Preferential Procurement (PA 40)	2 Pages	Yes
Registration on National Treasury's Central Supplier Database (CSD).	-	Yes
Particulars of Tenderer's Projects (DPW-09 EC)	2 Pages	Yes
Site Inspection Meeting Certificate (DPW-16 EC) (<i>if applicable</i>).	1 Page	Yes
Record of attending compulsory virtual bid clarification / site inspection meeting (<i>if applicable</i>).	1 Page	N/A
Record of Addenda to tender documents (DPW-21 EC)	1 Page	Yes
Site Inspection Meeting Certificate (DPW-16 EC) (<i>if applicable</i>)	1 Page	Yes
Proof of 30% Subcontracting participation and related documents in terms of the Preferential Procurement Regulations 2017 (<i>if applicable</i>).		

* In compliance with the requirements of the CIDB SFU Annexure G

Tender no:

2. ADDITIONAL RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

Note: Failure to submit the applicable documents will result in the Tenderer having to submit same upon request within a stipulated time and if not complied with, will result in the tender offer being disqualified from further consideration. [See also C.2.18 of the Standard Conditions of Tender]

Tender document name	Number of pages issued	Returnable document
Any <u>additional</u> information required to complete a risk assessment (<i>if applicable</i>)	-	Yes

3. RETURNABLE DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

Note: Failure to submit the applicable documents will result in the Tenderer having to submit same upon request within a stipulated time and if not complied with, will result in the tender offer being disqualified from further consideration. [See also C.2.18 of the Standard Conditions of Tender]

Tender document name	Number of pages issued	Returnable document
Schedule of proposed sub-contractors (DPW-15 EC) (<i>if applicable</i>)	1 Page	Yes
Particulars of Electrical Contractor (DPW-22 EC) (<i>if applicable</i>)	1 Page	Yes
Mechanical / Electrical / Security Work material and equipment schedules (<i>if applicable</i>)	Pages	Yes
Schedule for Imported Materials and Equipment (DPW-23 EC) (<i>if applicable</i>)	1 Page	Yes

4. OTHER DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

(Insert a tick in the "Returnable document" column to indicate which documents must be returned with the tender)

Note: Failure to submit the applicable documents will result in the tender offer being disqualified from further consideration.

Tender document name	Number of pages issued	Returnable document
Priced Bills of Quantities / Lump Sum Document (complete document inclusive of all parts)	Pages	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Fully priced and completed sectional summary- and final summary pages with the tender.	13 Pages	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<i>insert document name</i>	Pages	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>insert document name</i>	Pages	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>insert document name</i>	Pages	<input type="checkbox"/> Yes <input type="checkbox"/> No

Tender no:

5. ADDITIONAL INFORMATION THAT MAY BE REQUIRED FOR TENDER EVALUATION PURPOSES

Legal Status of Tendering Entity:	Documentation to be submitted with the tender, or which may be required during the tender evaluation:
If the Tendering Entity is:	
a. A close corporation, incorporated prior to 1 May 2011 under the Close Corporations Act, 1984 (Act 69 of 1984, as amended)	Copies of the Founding Statement – CK1
b. A profit company duly registered as a private company. [including a profit company that meets the criteria for a private company, whose Memorandum of Incorporation states that the company is a personal liability company in terms of Section 8(2)(c) of the Companies Act, 2008 (Act 71 of 2008, as amended)].	Copies of: i. Certificate of Incorporation – CM1; ii. Shareholding Certificates of all Shareholders of the company, plus a signed statement of the company's Auditor, certifying each Shareholder's ownership / shareholding percentage relative to the total; and/or iii. Memorandum of Incorporation in the case of a personal liability company.
c. A profit company duly registered as a private company in which any, or all, shares are held by one or more other close corporation(s) or company(ies) duly registered as profit or non-profit company(ies).	Copies of documents referred to in a. and/or b. above in respect of all such close corporation(s) and/or company(ies).
d. A profit company duly registered as a public company.	Copy of Certificate of Incorporation – CM1, and a signed statement of the company's Secretary or Auditor confirming that the company is a public company.
e. A non-profit company, incorporated in terms of Section 10 and Schedule 1 of the Companies Act, 2008 (Act 71 of 2008, as amended).	Copies of: i the Founding Statement – CK1; and ii the Memorandum of Incorporation setting out the object of the company, indicating the public benefit, cultural or social activity, or communal or group interest.
f. A natural person, sole proprietor or a Partnership	Copy(ies) of the Identity Document(s) of: i. such natural person/ sole proprietor, or each of the Partners to the Partnership.
g. A Trust	Deed of Trust duly indicating names of the Trustee(s) and Beneficiary (ies) as well as the purpose of the Trust and the mandate of the Trustees.

Signed by the Tenderer:

Name of representative	Signature	Date

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
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C1.1 FORM OF OFFER AND ACCEPTANCE

DPW-07 (EC): FORM OF OFFER AND ACCEPTANCE

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY		
Tender / Quotation no:	MTH01/2025	Reference no:	

OFFER

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

IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY

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 TOTAL OFFER INCLUSIVE OF ALL APPLICABLE TAXES ("All applicable taxes" includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies) **IS:**

Rand (in figures) **R**

Rand (in words).....

.....

.....

The amount in words takes precedence over the amount in figures. The award of the tender may be subjected to further price negotiation with the preferred tenderer(s). The negotiated and agreed price will be considered for acceptance as **a firm and final offer**.

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.

THIS OFFER IS MADE BY THE FOLLOWING LEGAL ENTITY: (cross out block which is not applicable)

Company or Close Corporation: And: Whose Registration Number is: And: Whose Income Tax Reference Number is: CSD supplier number:.....	OR	Natural Person or Partnership: Whose Identity Number(s) is/are: Whose Income Tax Reference Number is/are: CSD supplier number:.....
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*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"
For Internal & External Use

Tender / Quotation no:

AND WHO IS (if applicable):	
Trading under the name and style of:	
AND WHO IS:	
Represented herein, and who is duly authorised to do so, by: Mr/Mrs/Ms: In his/her capacity as:	Note: A Resolution / Power of Attorney, signed by all the Directors / Members / Partners of the Legal Entity must accompany this Offer, authorising the Representative to make this offer.

SIGNED FOR THE TENDERER:

Name of representative	Signature	Date

WITNESSED BY:

Name of witness	Signature	Date

This Offer is in respect of: (Please indicate with an "X" in the appropriate block)

- The official documents ☐
- The official alternative ☐
- Own alternative (only if documentation makes provision therefore) ☐

(N.B.: Separate Offer and Acceptance forms are to be completed for the main and for each alternative offer)

SECURITY OFFERED:

- (a) the Tenderer accepts that in respect of contracts up to R1 million, a payment reduction** of 5% of the contract value (excluding VAT) will be applicable and will be deducted by the Employer in terms of the applicable conditions of contract
- (b) in respect of contracts above R1 million, the Tenderer offers to provide security as indicated below:
- (1) cash deposit of 10 % of the Contract Sum (excluding VAT) Yes ☐ No ☐
 - (2) variable construction guarantee of 10 % of the Contract Sum (excluding VAT) Yes ☐ No ☐
 - (3) payment reduction of 10% of the value certified in the payment certificate (excluding VAT) Yes ☐ No ☐
 - (4) cash deposit of 5% of the Contract Sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) Yes ☐ No ☐
 - (5) fixed construction guarantee of 5% of the Contract Sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) Yes ☐ No ☐

NB. Guarantees submitted must be issued by either an insurance company duly registered in terms of the Insurance Act [Long-Term Insurance Act, 1998 (Act 52 of 1998) or Short-Term Insurance Act, 1998 (Act 35 of 1998)] or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"

For Internal & External Use

Tender / Quotation no:

The Tenderer elects as its *domicilium citandi et executandi* in the Republic of South Africa, where any and all legal notices may be served, as (physical address):

.....
.....

Other Contact Details of the Tenderer are:

Telephone No..... Cellular Phone No.

Fax No

Postal address

Banker Branch.....

Registration No of Tenderer at Department of Labour

CIDB Registration Number:

ACCEPTANCE

By signing this part of this form of offer and acceptance, the Employer identified below accepts the Tenderer's offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the Tenderer's offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract are contained in:

Part C1 Agreement 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 the above listed Parts.

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 securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five (5) working days of the date of such receipt notifies the employer in writing of any reason why he/she cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

For the Employer:

Name of signatory	Signature	Date

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"
For Internal & External Use

Tender / Quotation no:

Name of Organisation:	Department of Public Works and Infrastructure
Address of Organisation:	<i>PRD Building, Cnr. Durham and Sutherland Street, Mthatha, 5099</i>

WITNESSED BY:

Name of witness	Signature	Date

Schedule of Deviations

1.1.1. Subject:
Detail:
1.1.2. Subject:
Detail:
1.1.3. Subject:
Detail:
1.1.4. Subject:
Detail:
1.1.5. Subject:
Detail:
1.1.6. Subject:
Detail:

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.

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"
For Internal & External Use

C.2.2 Bills of Quantities

**(COMPLETED BILLS OF QUANTITIES TO BE INSERTED
AND RETURNED)**

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

T2.2.1: Returnable Documents required for tender evaluation purposes

PA-11: BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

- 2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest (1) in the enterprise, employed by the state?

YES / NO

- 2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

(1) the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

- 2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution?

YES / NO

- 2.2.1 If so, furnish particulars:

.....
.....

- 2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?

YES / NO

- 2.3.1 If so, furnish particulars:

.....
.....

3 DECLARATION

I, the undersigned, (name).....
in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 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 consortium² will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.5 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.
- 3.6 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

² 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.

- 3.7 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.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

This form has been aligned with SBD4

PA- 29: CERTIFICATION OF INDEPENDENT BID DETERMINATION

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY		
Bid no:	MTH01/2025	Reference no:	

INTRODUCTION

1. This PA-29 [Certificate of Independent Bid Determination] 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 form (PA-29) 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 (PA-29) 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.

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:
 - (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.

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.

Name of Bidder	Signature	Date	Position

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.

PA-15.1: RESOLUTION OF BOARD OF DIRECTORS

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

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

Held at _____ (place)

on _____ (date)

RESOLVED that:

- The Enterprise submits a Bid / Tender to the Department of Public Works in respect of the following project:

(Project description as per Bid / Tender Document)

Bid / Tender Number: _____ (Bid / Tender Number as per Bid / Tender Document)

- *Mr/Mrs/Ms: _____

in *his/her Capacity as: _____ (Position in the Enterprise)

and who will sign as follows: _____

be, and is hereby, authorised to sign the Bid / Tender, and any and all other documents and/or correspondence in connection with and relating to the Bid / Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid / Tender to the Enterprise mentioned above.

	Name	Capacity	Signature
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The bidding enterprise hereby absolves the Department of Public Works from any liability whatsoever that may arise as a result of this document being signed.

Note:

1. * Delete which is not applicable.
2. **NB:** This resolution must, where possible, be signed by all the Directors / Members / Partners of the Bidding Enterprise.
3. In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).
4. Directors / Members / Partners of the Bidding Enterprise may alternatively appoint a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).
5. Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

ENTERPRISE STAMP

PA-15.2: RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

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

Held at _____ (place)

on _____ (date)

RESOLVED that:

1. The Enterprise submits a Bid /Tender, in consortium/Joint Venture with the following Enterprises:

(List all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium/Joint Venture)

to the Department of Public Works in respect of the following project:

(Project description as per Bid /Tender Document)

Bid / Tender Number: _____ (Bid / Tender Number as per Bid / Tender Document)

2. *Mr/Mrs/Ms: _____
in *his/her Capacity as: _____ (Position in the Enterprise)
and who will sign as follows: _____

be, and is hereby, authorised to sign a consortium/joint venture agreement with the parties listed under item 1 above, and any and all other documents and/or correspondence in connection with and relating to the consortium/joint venture, in respect of the project described under item 1 above.

3. The Enterprise accepts joint and several liability with the parties listed under item 1 above for the due fulfilment of the obligations of the joint venture deriving from, and in any way connected with, the Contract to be entered into with the Department in respect of the project described under item 1 above.
4. The Enterprise chooses as its *domicilium citandi et executandi* for all purposes arising from this joint venture agreement and the Contract with the Department in respect of the project under item 1 above:

Physical address: _____

_____ (code)

Postal Address: _____

 _____ (code)

Telephone number: _____

Fax number: _____

	Name	Capacity	Signature
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The bidding enterprise hereby absolves the Department of Public Works from any liability whatsoever that may arise as a result of this document being signed

Note:

- * Delete which is not applicable.
- NB:** This resolution must, where possible, be signed by all the Directors / Members / Partners of the Bidding Enterprise.
- In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).
- Directors / Members / Partners of the Bidding Enterprise may alternatively appoint a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).
- Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

ENTERPRISE STAMP

PA-15.3: SPECIAL RESOLUTION OF CONSORTIA OR JOINT VENTURES

RESOLUTION of a meeting of the duly authorised representatives of the following legal entities who have entered into a consortium/joint venture to jointly bid for the project mentioned below: *(legally correct full names and registration numbers, if applicable, of the Enterprises forming a Consortium/Joint Venture)*

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

Held at _____ (place)

on _____ (date)

RESOLVED that:

RESOLVED that:

- A. The above-mentioned Enterprises submit a Bid in Consortium/Joint Venture to the Department of Public Works in respect of the following project:

(Project description as per Bid /Tender Document)

Bid / Tender Number: _____ *(Bid / Tender Number as per Bid /Tender Document)*

PA-15.3: Special Resolution of Consortia or Joint Ventures

B. *Mr/Mrs/Ms: _____

in *his/her Capacity as: _____ (Position in the Enterprise)

and who will sign as follows: _____

be, and is hereby, authorised to sign the Bid, and any and all other documents and/or correspondence in connection with and relating to the Bid, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid to the Enterprises in Consortium/Joint Venture mentioned above.

C. The Enterprises constituting the Consortium/Joint Venture, notwithstanding its composition, shall conduct all business under the name and style of:

D. The Enterprises to the Consortium/Joint Venture accept joint and several liability for the due fulfilment of the obligations of the Consortium/Joint Venture deriving from, and in any way connected with, the Contract entered into with the Department in respect of the project described under item A above.

E. Any of the Enterprises to the Consortium/Joint Venture intending to terminate the consortium/joint venture agreement, for whatever reason, shall give the Department 30 days written notice of such intention. Notwithstanding such decision to terminate, the Enterprises shall remain jointly and severally liable to the Department for the due fulfilment of the obligations of the Consortium/Joint Venture as mentioned under item D above.

F. No Enterprise to the Consortium/Joint Venture shall, without the prior written consent of the other Enterprises to the Consortium/Joint Venture and of the Department, cede any of its rights or assign any of its obligations under the consortium/joint venture agreement in relation to the Contract with the Department referred to herein.

G. The Enterprises choose as the *domicilium citandi et executandi* of the Consortium/Joint Venture for all purposes arising from the consortium/joint venture agreement and the Contract with the Department in respect of the project under item A above:

Physical address: _____

_____ (Postal code) _____

Postal Address: _____

_____ (Postal code) _____

Telephone number: _____

Fax number: _____

PA-15.3: Special Resolution of Consortia or Joint Ventures

	Name	Capacity	Signature
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The bidding enterprise hereby absolves the Department of Public Works & Infrastructure from any liability whatsoever that may arise as a result of this document being signed.

Note:

1. * Delete which is not applicable.
2. **NB:** This resolution must be signed by all the Duly Authorised Representatives of the Legal Entities to the consortium/joint venture submitting this tender, as named in item 2 of Resolution PA-15.2.
3. Should the number of the Duly Authorised Representatives of the Legal Entities joining forces in this tender exceed the space available above, additional names, capacity and signatures must be supplied on a separate page.
4. Resolution PA-15.2, duly completed and signed, from the separate Enterprises who participate in this consortium/joint venture, must be attached to this Special Resolution (PA-15.3).

DPW-16 (EC): SITE INSPECTION MEETING CERTIFICATE

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY		
Tender / Quotation no:	MTH01/2025	Reference no:	
Closing date:	29 April 2025		

This is to certify that I, _____ representing

_____ in the capacity of

_____ visited the site on: **insert date**

I have made myself familiar with all local conditions likely to influence the work and the cost thereof. I further certify that I am 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.

Name of Tenderer	Signature	Date

Name of DPW Representative	Signature	Date

PA-16: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- 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 Preference Points System to be applied

(tick whichever is applicable).

- ☒ The applicable preference point system for this tender is the **80/20** preference point system.
- ☐ The applicable preference point system for this tender is the **90/10** preference point system.
- ☐ Either the **90/10 or 80/20** preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender shall be awarded for:

1.3.1 Price; and

1.3.2 Specific Goals

1.4 The maximum points for this tender are allocated as follows:

CHOOSE APPLICABLE PREFERENCE POINT SCORING SYSTEM	<input checked="" type="checkbox"/> 80/20	<input type="checkbox"/> 90/10
PRICE	80	90
SPECIFIC GOALS	20	10
Total points for Price and Specific Goals	100	100

1.5 Breakdown Allocation of Specific Goals Points

☐ **1.5.1. For procurement transaction with rand value greater than R2 000, 00 and up to R1 Million (Inclusive of all applicable taxes) the specific goals listed in table 1 below are applicable.**

Table 1

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	<ul style="list-style-type: none"> Official Municipal Rates Statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Any account or statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Lease Agreement which is in the name of the bidder.
3.	An EME or QSE which is at least 51% owned by black women (Mandatory)	4	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE which is at least 51% owned by black people with disability (Mandatory)	2	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

			<p>and</p> <ul style="list-style-type: none"> • Medical Certificate indicating that the disability is permanent. <p>Or</p> <ul style="list-style-type: none"> • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. <p>Or</p> <ul style="list-style-type: none"> • National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).
5.	An EME or QSE which is at least 51% owned by black youth (Mandatory)	2	<ul style="list-style-type: none"> • ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.



1.5.2. For procurement transaction with rand value greater than R1 Million and up to R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 2 below are applicable.

Table 2

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	10	<ul style="list-style-type: none"> • SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	<ul style="list-style-type: none"> • Official Municipal Rates Statement which is in the name of the bidder. <p>Or</p>

			<ul style="list-style-type: none"> Any account or statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (Mandatory)	4	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. <p>and</p> <ul style="list-style-type: none"> Medical Certificate indicating that the disability is permanent. <p>Or</p> <ul style="list-style-type: none"> South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. <p>Or</p> <p>National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).</p>

5.	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	<ul style="list-style-type: none"> ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
----	--	---	---

1.5.3. For procurement transaction with rand value greater than R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 3 below are applicable.

NB. The use of one of goal numbers' 4 or 5 is mandatory. The BSC must select either one of the two, but not both.

Table 3

Serial No	Specific Goals	Preference Points Allocated out of 10	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	4	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	<ul style="list-style-type: none"> Official Municipal Rates Statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Any account or statement which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. <p>Or</p> <ul style="list-style-type: none"> Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51%	2	<ul style="list-style-type: none"> SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

		owned by black women (mandatory)		
	4. <input type="checkbox"/>	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	<ul style="list-style-type: none"> • SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. <p>and</p> <ul style="list-style-type: none"> • Medical Certificate indicating that the disability is permanent. <p>Or</p> <ul style="list-style-type: none"> • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. <p>Or</p> <p>National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).</p>
	OR			
	5. <input type="checkbox"/>	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	<ul style="list-style-type: none"> • ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable

Black people mean Africans, Coloureds and Indians, who - (a) are citizens of the Republic of South Africa by birth or descent; or (b) became citizens of the Republic of South Africa by naturalisation - (i) before 27 April 1994; or (ii) on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date. (BROAD-BASED BLACK ECONOMIC EMPOWERMENT ACT No 25899, 2003 of 9 JANUARY 2004).

- 1.6 Failure on the part of the tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals, if the service provider/ tenderer did not submit proof or documentation required to claim for specific goals will be interpreted to mean that preference points for specific goals are not claimed.
- 1.7 The organ of state reserves the right to require of a service provider/tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) “**tender**” means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations,

competitive tendering process or any other method envisaged in legislation;

- (b) “**price**” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) “**tender for income-generating contracts**” means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) “**the Act**” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1. THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \mathbf{Ps = 80 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)} & \mathbf{or} & \mathbf{Ps = 90 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)} \end{array}$$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmin = Price of lowest acceptable tender

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

3.2.1. POINTS AWARDED FOR PRICE

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \mathbf{Ps = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)} & \mathbf{or} & \mathbf{Ps = 90 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)} \end{array}$$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1,2 and 3 above as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
 - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,
- then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 4: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.)

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
1. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black people	4	10		
2. Located in a specific Local Municipality or District Municipality or Metro or	2	2		

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Province area for work to be done or services to be rendered in that area				
3. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black women	2	4		
4. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black people with disability	2	2		
5. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black youth.*	2	2		

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

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

- 4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I 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 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
 - iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering 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 tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

.....	
SIGNATURE(S) OF TENDERER(S)	
SURNAME AND NAME:
DATE:
ADDRESS:

DPW-09 (EC): PARTICULARS OF TENDERER'S PROJECTS

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY		
Tender / quotation no:	MTH01/2025	Closing date:	29 April 2025
Advertising date:	04 April 2025	Validity period:	84 days

1. PARTICULARS OF THE TENDERER'S CURRENT AND PREVIOUS COMMITMENTS

1.1. Current projects

Projects currently engaged in	Name of Employer or Representative of Employer	Contact tel. no.	Contract sum	Contractual commencement date	Contractual completion date	Current percentage progress
1						
2						
3						
4						
5						
6						
7						
8						



Tender no: **MTH01/2025**

1.2. Completed projects

Projects completed in the previous 5 (five) years	Name of Employer or Representative of Employer	Contact tel. no.	Contract sum	Contractual commencement date	Contractual completion date	Date of Certificate of Practical Completion
1						
2						
3						
4						
5						
6						
7						
8						
9						

Name of Tenderer	Signature	Date

T2.2.2 Returnable Documents: Additional returnable documents required for tender evaluation purposes

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

**Documents for Risk Assessment
INSERT ORIGINAL / CERTIFIED BANK RATING
HERE**

DOCUMENTS FOR RISK ASSESSMENT: STAFFING

The Tenderer shall provide a list of all key staff that will be made available to perform any duties for and on behalf of the Tenderer on this project. The Tenderer may attach a company organogram for information purposes.

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

T2.2.3: Returnable Documents that will be incorporated into the contract

PA- 40: DECLARATION OF DESIGNATED GROUPS

Tender no: **MTH01/2025**

Name of Tenderer

☐ EME¹ ☐ QSE² ☐ Non EME/QSE (tick applicable box)

1. LIST ALL PROPRIETORS, MEMBERS OR SHAREHOLDERS BY NAME, IDENTITY NUMBER, CITIZENSHIP AND DESIGNATED GROUPS.

Name and Surname #	Identity/ Passport number and Citizenship##	Percentage owned	Black	Indicate if youth	Indicate if woman	Indicate if person with disability	Indicate if living in Rural (R) / Under Developed Area (UD) / Township (T) / Urban (U).	Indicate if military veteran
1.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
4.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
5.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
6.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
7.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
8.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
9.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
10.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
11.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No

Where Owners are themselves a Company, Close Corporation, Partnership etc, identify the ownership of the Holding Company, together with Registration number
State date of South African citizenship obtained (not applicable to persons born in South Africa)

¹ EME: Exempted Micro Enterprise

² QSE: Qualifying Small Business Enterprise

PA- 40: DECLARATION OF DESIGNATED GROUPS

Tender no: **MTH01/2025**

2. DECLARATION:

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

- 1 The information and particulars contained in this Affidavit are true and correct in all respects;
- 2 The Broad-based Black Economic Empowerment Act, 2003 (Act 53 of 2003), Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000), National Small Business Act 102 of 1996 as amended and all documents pertaining to this Tender were studied and understood and that the above form was completed according to the definitions and information contained in said documents;
- 3 The Tenderer understands that any intentional misrepresentation or fraudulent information provided herein shall disqualify the Tenderer's offer herein, as well as any other tender offer(s) of the Tenderer simultaneously being evaluated, or will entitle the Employer to cancel any Contract resulting from the Tenderer's offer herein;
- 4 The Tenderer accepts that the Employer may exercise any other remedy it may have in law and in the Contract, including a claim for damages for having to accept a less favourable tender as a result of any such disqualification due to misrepresentation or fraudulent information provided herein;
- 5 Any further documentary proof required by the Employer regarding the information provided herein, will be submitted to the Employer within the time period as may be set by the latter;

Signed by the Tenderer

Name of representative	Signature	Date

DPW-21 (EC): RECORD OF ADDENDA TO TENDER DOCUMENTS

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY		
Tender no:	<i>MTH01/2025</i>	Reference no:	

1. I / We confirm that the following communications received from the Department of Public Works and Infrastructure before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer: *(Attach additional pages if more space is required)*

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		

Name of Tenderer	Signature	Date

2. I / We confirm that no communications were received from the Department of Public Works and Infrastructure before the submission of this tender offer, amending the tender documents.

Name of Tenderer	Signature	Date

DPW-15 (EC): SCHEDULE OF PROPOSED SUBCONTRACTORS

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY		
Tender no:	<i>MTH01/2025</i>	Reference no:	

We notify you that it is our intention to employ the following Subcontractors for work in this contract.

We confirm that all subcontractors who are contracted to construct a house are registered as home builders with the National Home Builders Registration Council.

	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor
1			
2			
3			
4			
5			

Name of representative	Signature	Capacity	Date

Name of organisation:	
------------------------------	--

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

T2.2.4: Returnable Documents: Other Documents that will be incorporated into the contract

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

INSERT ORIGINAL TAX CLEARANCE CERTIFICATE HERE

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

INSERT CERTIFIED COPY OF B-BBEE CERTIFICATE HERE

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

**INSERT ORIGINAL / CERTIFIED 'LETTER OF GOOD
STANDING' WITH THE COMPENSATION COMMISSIONER
HERE**



public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

EVALUATION SCHEDULE — PROJECT REFERENCE FORM 1

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY
Project Number:	MTH01/2025

NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value and complexity that was completed successfully by the tenderer.

I, _____ (name and surname) of
_____ (Company name) declare that I
was the Project Manager on the following building construction project successfully executed by:

Name of tenderer: _____

Name of the Employer: _____

Project description: _____

Project location: _____

Construction period: _____ Completion date: _____

Contract value: _____

Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the Principal Agent/ Project Manager, by inserting "Yes" in the relevant box below:

Key Performance Indicators	Very Poor 1	Poor 2	Fair 3	Good 4	Excellent 5	Total
1. Project performance						
2. Quality of Service						
3. Resources: Personnel						
4. Time management / programming						
5. Financial management / Project budget management/cash flow, etc.						
TOTAL						

Would you consider / recommend this tenderer again:

YES	NO

Any other comments:

Employer's contact details are:

Telephone: _____ Cellphone: _____ Fax: _____

E-mail: _____

Thus signed at _____ on this _____ day of _____ 20 _____

Signature of Principal Agent

COMPANY STAMP

NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer



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Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

EVALUATION SCHEDULE — PROJECT REFERENCE FORM 2

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY
Project Number:	MTH01/2025

NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value and complexity that was completed successfully by the tenderer.

I, _____ (name and surname) of
_____ (Company name) declare that I
was the Project Manager on the following building construction project successfully executed by:

Name of tenderer: _____

Name of the Employer: _____

Project description: _____

Project location: _____

Construction period: _____ Completion date: _____

Contract value: _____

Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the Principal Agent/ Project Manager, by inserting "Yes" in the relevant box below:

Key Performance Indicators	Very Poor 1	Poor 2	Fair 3	Good 4	Excellent 5	Total
1. Project performance						
2. Quality of Service						
3. Resources: Personnel						
4. Time management / programming						
5. Financial management / Project budget management/cash flow, etc.						
TOTAL						

Would you consider / recommend this tenderer again:

YES	NO

Any other comments:

Employer's contact details are:

Telephone: _____ Cellphone: _____ Fax: _____

E-mail: _____

Thus signed at _____ on this _____ day of _____ 20 _____

Signature of Principal Agent

COMPANY STAMP

NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer



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Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

EVALUATION SCHEDULE — PROJECT REFERENCE FORM 3

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY
Project Number:	MTH01/2025

NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value and complexity that was completed successfully by the tenderer.

I, _____ (name and surname) of
_____ (Company name) declare that I
was the Project Manager on the following building construction project successfully executed by:

Name of tenderer: _____

Name of the Employer: _____

Project description: _____

Project location: _____

Construction period: _____ Completion date: _____

Contract value: _____

Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the Principal Agent/ Project Manager, by inserting "Yes" in the relevant box below:

Key Performance Indicators	Very Poor 1	Poor 2	Fair 3	Good 4	Excellent 5	Total
1. Project performance						
2. Quality of Service						
3. Resources: Personnel						
4. Time management / programming						
5. Financial management / Project budget management/cash flow, etc.						
TOTAL						

Would you consider / recommend this tenderer again:

YES	NO

Any other comments:

Employer's contact details are:

Telephone: _____ Cellphone: _____ Fax: _____

E-mail: _____

Thus signed at _____ on this _____ day of _____ 20 _____

Signature of Principal Agent

COMPANY STAMP

NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer



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& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

EVALUATION SCHEDULE — PROJECT REFERENCE FORM 4

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY
Project Number:	MTH01/2025

NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value and complexity that was completed successfully by the tenderer.

I, _____ (name and surname) of
_____ (Company name) declare that I
was the Project Manager on the following building construction project successfully executed by:

Name of tenderer: _____

Name of the Employer: _____

Project description: _____

Project location: _____

Construction period: _____ Completion date: _____

Contract value: _____

Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the Principal Agent/ Project Manager, by inserting "Yes" in the relevant box below:

Key Performance Indicators	Very Poor 1	Poor 2	Fair 3	Good 4	Excellent 5	Total
1. Project performance						
2. Quality of Service						
3. Resources: Personnel						
4. Time management / programming						
5. Financial management / Project budget management/cash flow, etc.						
TOTAL						

Would you consider / recommend this tenderer again:

YES	NO

Any other comments:

Employer's contact details are:

Telephone: _____ Cellphone: _____ Fax: _____

E-mail: _____

Thus signed at _____ on this _____ day of _____ 20 _____

Signature of Principal Agent

COMPANY STAMP

NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer



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Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

EVALUATION SCHEDULE — PROJECT REFERENCE FORM 5

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY
Project Number:	MTH01/2025

NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value and complexity that was completed successfully by the tenderer.

I, _____ (name and surname) of
_____ (Company name) declare that I
was the Project Manager on the following building construction project successfully executed by:

Name of tenderer: _____

Name of the Employer: _____

Project description: _____

Project location: _____

Construction period: _____ Completion date: _____

Contract value: _____

Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the Principal Agent/ Project Manager, by inserting "Yes" in the relevant box below:

Key Performance Indicators	Very Poor 1	Poor 2	Fair 3	Good 4	Excellent 5	Total
1. Project performance						
2. Quality of Service						
3. Resources: Personnel						
4. Time management / programming						
5. Financial management / Project budget management/cash flow, etc.						
TOTAL						

Would you consider / recommend this tenderer again:

YES	NO

Any other comments:

Employer's contact details are:

Telephone: _____ Cellphone: _____ Fax: _____

E-mail: _____

Thus signed at _____ on this _____ day of _____ 20 _____

Signature of Principal Agent

COMPANY STAMP

NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer



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REPUBLIC OF SOUTH AFRICA

EVALUATION SCHEDULE — PROJECT REFERENCE FORM 6

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY
Project Number:	MTH01/2025

NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value and complexity that was completed successfully by the tenderer.

I, _____ (name and surname) of
_____ (Company name) declare that I
was the Project Manager on the following building construction project successfully executed by:

Name of tenderer: _____

Name of the Employer: _____

Project description: _____

Project location: _____

Construction period: _____ Completion date: _____

Contract value: _____

Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the Principal Agent/ Project Manager, by inserting "Yes" in the relevant box below:

Key Performance Indicators	Very Poor 1	Poor 2	Fair 3	Good 4	Excellent 5	Total
1. Project performance						
2. Quality of Service						
3. Resources: Personnel						
4. Time management / programming						
5. Financial management / Project budget management/cash flow, etc.						
TOTAL						

Would you consider / recommend this tenderer again:

YES	NO

Any other comments:

Employer's contact details are:

Telephone: _____ Cellphone: _____ Fax: _____

E-mail: _____

Thus signed at _____ on this _____ day of _____ 20 _____

Signature of Principal Agent

COMPANY STAMP

NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

T2.2.5 ADDITIONAL INFORMATION REQUIRED FOR TENDER EVALUATION PURPOSES

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

ORIGINAL CERTIFIED COMPANY DOCUMENTATION

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

**CERTIFIED COPIES OF ID(S) OF DIRECTORS / SOLE
PROPRIETTOR / MEMBERS / TRUSTEES**



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Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

TENDER NO: MTH01/2025

**IDUTYWA MAGISTRATES COURT: PLANNED
MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE
ENTIRE FACILITY**

VOLUME 1 – TENDERING PROCEDURES

VOLUME 2 – RETURNABLE DOCUMENTS

VOLUME 3 – THE CONTRACT (THIS DOCUMENT) – PART A

TENDER DOCUMENT

APRIL 2025

ISSUED BY:

DEPARTMENT OF PUBLIC WORKS
PRIVATE BAG X 5007
PRD BUILDING
MTHATHA
5099

PREPARED BY:

BISIWE VAN NIEKERK INC.
P.O.BOX 15546
BEACON BAY
EAST LONDON
5205

NAME OF TENDERER:



**IDUTYWA MAGISTRATES COURT: PLANED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
(WCS 054991 & 056942)**

CONTACT DETAILS

<p>Principal Agent: <u>NATIONAL DEPT PUBLIC WORKS & INFRASTRUCTURE</u></p> <p>Contact Person: Ms Asive Lomntu</p> <p>Tel : 047 – 502 7030</p> <p>Mobile: 066 335 5405</p> <p>E-mail : asive.lomntu@dpw.gov.za</p> <p>Address : Dept Public Works PRD Building, Cnr Durham and Sutherland Street, Mthatha</p>	<p>Architect: <u>INSTIKA ARCHITECTS (PTY) LTD</u></p> <p>Contact Person: Rob Gillard</p> <p>Tel : 043 – 748 2949</p> <p>Fax : 043 – 748 1702</p> <p>Mobile: 082 872 8748</p> <p>E-mail : rob@intsika.com</p> <p>Address : 73 Bonza Bay Road, Beacon Bay, East London, 5241</p>
<p>Quantity Surveyors: <u>BISIWE VAN NIEKERK INC.</u></p> <p>Contact Person: Darren Edwards</p> <p>Tel : 043 – 721 1043</p> <p>Fax : -</p> <p>Mobile: 083 651 7886</p> <p>E-mail : darren@bisiwe.co.za</p> <p>Address : Beacon Park, 21 Pell Street, Beacon Bay, East London, 5241</p>	<p>Civil Engineers: <u>BVI CONSULTING ENG's</u></p> <p>Contact Person: Werner de Lange</p> <p>Tel : 043 722 2738</p> <p>Fax : 086 604 9374</p> <p>Mobile : 082 578 0674</p> <p>E-mail : WernerDL@bvi.co.za</p> <p>Address : 56 Bonza Bay Road, Beacon Bay, East London, 5241</p>
<p>Electrical Engineers: <u>EVANS CONSULTING ENG's</u></p> <p>Contact Person: Jan Kleinhans</p> <p>Tel : 043 721 3192</p> <p>Fax : -</p> <p>Mobile: 082 731 7581</p> <p>E-mail : jan@evansconsulting.co.za</p> <p>Address : 17 Surrey Road, Vincent, East London, 5247</p>	<p>Mechanical Engineers: <u>EVANS CONSULTING ENG's</u></p> <p>Contact Person: Cedric Leach</p> <p>Tel : 043 721 3192</p> <p>Fax : -</p> <p>Mobile: 072 015 8373</p> <p>E-mail : cedric@evansconsulting.co.za</p> <p>Address : 17 Surrey Road, Vincent, East London, 5247</p>
<p>Structural Engineers: <u>BVI CONSULTING ENG's</u></p> <p>Contact Person: Werner de Lange</p> <p>Tel : 043 722 2738</p> <p>Fax : 086 604 9374</p> <p>Mobile : 082 578 0674</p> <p>E-mail : WernerDL@bvi.co.za</p> <p>Address : 56 Bonza Bay Road, Beacon Bay, East London, 5241</p>	<p>Health and Safety Agent: <u>SINDA AFRICA</u></p> <p>Contact Person: Nonkuthalo Tshaka</p> <p>Tel: 043 727 5091</p> <p>E-mail : ohs@sindafrica.co.za</p> <p>Address: Beacon Park, 21 Pell Street, Beacon Bay, East London, 5205</p>



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Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

REFERENCE NO.

TENDER NO: MTH01/2025

**VOLUME 3
CONTRACT**

ISSUED BY:
DEPARTMENT OF PUBLIC WORKS
PRD II BUILDING
SUTHERLAND STREET
MTHATHA
5100
25270
CONTACT PERSON:
MS. ASIVE LOMNTU
TEL: (047) 502 7030

VOLUME 3
CONTRACT

IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY

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- C.3 Scope of Work

PART C4 SITE INFORMATION

- C.4 Site Information

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

PART C1: Agreement and Contract Data

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

C1.2 Contract Data

DPW-04 (EC): CONTRACT DATA: JBCC PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY
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Tender / Quotation no:	MTH01/2025	WCS no:	054991 & 056942	Reference no:	
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	<p>The Conditions of Contract are clauses 1 to 30 of the JBCC® Principal Building Agreement (Edition 6.2 of May 2018) prepared by the Joint Building Contracts Committee.</p> <p>Contractors are cautioned to read the JBCC PBA and Contract Data (DPW-04 (EC)) together as some clauses in the JBCC PBA have been amended in the Contract Data (DPW-04 (EC)).</p> <p>Copies of these conditions of contract may be obtained through most regional offices of the Association of South African Quantity Surveyors, Master Builders Association, South African Association of Consulting Engineers, South African Institute of Architects, Association of Construction Project Managers, Building Industries Federation South Africa, South African Property Owners Association or Specialist Engineering Contractors Committee.</p> <p>Bidders to note that materials procured for the works should be from South African manufactures and suppliers. Imported materials shall only be considered under exceptional circumstances, based on compelling technical justifications, and subject to the approval by the NDPWI.</p>
	<p>CONTRACT VARIABLES</p> <p>THE SCHEDULE</p> <p>The schedule is the listed variables in this agreement and contains all variables referred to in this document including specific changes made to JBCC® documentation. It is divided into part 1: contract data completed by the employer and part 2: contract data completed by the tenderer. Part 1 must be completed in full and included in the tender documents. Both the part 1 and part 2 form part of this agreement.</p> <p>Spaces requiring information must be filled in, shown as 'not applicable' or deleted but not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross referenced to the applicable clause of the schedule. Reference to clause numbers in the JBCC Principal Building Agreement are shown in [square brackets] in this contract data e.g. [3.1].</p>

PART 1: CONTRACT DATA COMPLETED BY THE EMPLOYER:

A PROJECT INFORMATION

A 1.0 Works [1.1]

Works description	Refer to document PG01.2 (EC) – Scope of Works for detailed description
	Planned Maintenance, Repairs and Refurbishment of the entire Existing Idutywa Magistrate Court Facility on erf 5241, Idutywa, including Electrical & Mechanical Works and related Civil & Structural Works. Entire magistrates office facility needs to be decanted to nearby vacant site and accommodated in temporary prefabricated units for the duration of the project and relocated back to the facility on completion of the works.

Tender / Quotation no: MTH01/2025

A 2.0 Site [1.1]

Erf / stand number	5241
Site address	Erf 5241
Township / Suburb	Idutywa CBD
City / Town	Idutywa
Province	Eastern Cape
Local authority	Mbhashe Local Municipality
GPS Coordinates	Latitude: 32°05'56.2" Longitude: 28°18'16.5"

A 3.0 EMPLOYER AND ITS REPRESENTATIVE

A 3.1 Employer:

Official Name of Organ of State / Public Sector Body	Government of the Republic of South Africa in its Department of Public Works & Infrastructure		
Business registration number	Not applicable	VAT number	Not applicable
E-mail	Asive.Lomntu@dpw.gov.za	Telephone	047 502 7030
Postal address	Private Bag X 5007 Mthatha 5099		
Physical address	PRD Building Cnr. Durham and Sutherland Street Mthatha 5100		

A 3.2 Employer's representative:

Name	Ms Asive Lomntu	Telephone number	047 502 7030
E-mail	Asive.Lomntu@dpw.gov.za	Mobile number	066 335 5405
Postal address	Private Bag X 5007 Mthatha 5099		
Physical address	PRD Building Cnr. Durham and Sutherland Street Mthatha 5100		

Tender / Quotation no: MTH01/2025

A 4.0	Principal Agent [1.1; 6.2]	Discipline	Principal Agent
--------------	-----------------------------------	-------------------	-----------------

Name	National Department of Public Works and Infrastructure		
Legal entity of above	NDPW	Contact person	Asive Lomntu
Practice number		Telephone number	047 502 7030
Country	South Africa	Mobile number	066 335 5405
E-mail	asive.lomntu@dpw.gov.za		
Postal address	Dept Public Works & Infrastructure Private Bag X5007 Mthatha 5099		
Physical address	PRD Building Cnr Durham & Sutherland Street Mthatha 5100		

A 5.0	Agent [1.1; 6.2]	Discipline	Architect
--------------	-------------------------	-------------------	-----------

Name	CIBA Consortium		
Legal entity of above	Intsika Architects (Pty) Ltd	Contact person	Rob Gillard
Practice number		Telephone number	043 748 2949
Country	South Africa	Mobile number	082 872 8748
E-mail	darren@bisiwe.co.za		
Postal address	73 Bonza Bay Road Beacon Bay East London 5241		
Physical address	73 Bonza Bay Road Beacon Bay East London 5241		

A 6.0	Agent [1.1; 6.2]	Discipline	Quantity Surveyor
--------------	-------------------------	-------------------	-------------------

Name	CIBA Consortium		
Legal entity of above	Bisiwe Van Niekerk Inc	Contact person	Darren Edwards
Practice number		Telephone number	043 721 1043
Country	South Africa	Mobile number	083 651 7886
E-mail	darren@bisiwe.co.za		
Postal address	PO Box 15546 Beacon Bay East London 5205		
Physical address	Beacon Park 21 Pell Street Beacon Bay 5241		

Tender / Quotation no: MTH01/2025

A 7.0	Agent [1.1; 6.2]	Discipline	Electrical & Mechanical Engineers
--------------	-------------------------	-------------------	-----------------------------------

Name	CIBA Consortium		
Legal entity of above	Evans Consulting Engineers	Contact person	Cedric Leach
Practice number		Telephone number	043 721 3192
Country	South Africa	Mobile number	072 015 8373
E-mail	cedric@evansconsulting.co.za		
Postal address	17 Surrey Road Vincent East London 5247		
Physical address	17 Surrey Road Vincent East London 5247		

A 8.0	Agent [1.1; 6.2]	Discipline	Civil & Structural Engineers
--------------	-------------------------	-------------------	------------------------------

Name	CIBA Consortium		
Legal entity of above	BVI Consulting Engineers	Contact person	Werner de Lange
Practice number		Telephone number	043 722 2738
Country	South Africa	Mobile number	082 578 0674
E-mail	WernerDL@bvi.co.za		
Postal address	56 Bonza Bay Road Beacon Bay East London 5241		
Physical address	56 Bonza Bay Road Beacon Bay East London 5241		

A 9.0	Agent [1.1; 6.2]	Discipline	Health & Safety Agent
--------------	-------------------------	-------------------	-----------------------

Name	CIBA Consortium		
Legal entity of above	Sinda Africa	Contact person	Nonkuthalo Tshaka
Practice number		Telephone number	043 727 5091
Country	South Africa	Mobile number	
E-mail	ohs@sindafrica.co.za		
Postal address	Beacon Park 21 Pell Street Beacon Bay 5205		
Physical address	Beacon Park 21 Pell Street Beacon Bay 5205		

Tender / Quotation no: MTH01/2025

A 10.0	Agent [1.1; 6.2]	Discipline	
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Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address			
Physical address			

A 11.0	Agent [1.1; 6.2]	Discipline	
---------------	-------------------------	-------------------	--

Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address			
Physical address			

A 12.0	Agent [1.1; 6.2]	Discipline	
---------------	-------------------------	-------------------	--

Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address			
Physical address			

Tender / Quotation no: MTH01/2025

B CONTRACT INFORMATION

B 1.0 Definitions [1.1]

Bills of quantities: System/Method of measurement	Standard system of measurement of building works 7 th edition
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B 2.0 Law, regulations and notices [2.0]

Law applicable to the works, state country [2.1]	Law of the Republic of South Africa
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B 3.0 Offer and acceptance [3.0]

Currency applicable to this agreement [3.2]	South African Rand
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B 4.0 Documents [5.0]

The original signed agreement is to be held by the principal agent [5.2], if not, indicate by whom	Employer
Number of copies of construction information issued to the contractor at no cost [5.6] (3 Copies of all relevant construction documentation – this to includes 1 priced Bills of Quantities and 2 unpriced Bills of Quantities)	3

Documents comprising the agreement	Page numbers
The JBCC® Principal Building Agreement, Edition 6.2 May 2018	1 to 30
DPW-04 (EC): CONTRACT DATA: JBCC PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)	1 to 31
The JBCC® General Preliminaries for use with the JBCC® Principal Building Agreement, Edition 6.2 May 2018	1-32
Drawings as issued with the tender	
Specifications issued with the tender	
Schedules issued with the tender	
Bills of Quantities issued with the tender	33 to 558
Addenda as issued during tender stage, if applicable	As issued

B 5.0 Employer's agents [6.0]

Authority is delegated to the following agents to issue contract instructions and perform duties for specific aspects of the works [6.2] [6.7 [CD]]	Principal Agent
Principal agent's and agents' interest or involvement in the works other than a professional interest [6.3]	
N/A	

Tender / Quotation no: MTH01/2025

B 6.0 Insurances [10.0]

Insurances by contractor			
NB: Insurances submitted must be issued by either an insurance company duly registered in terms of the Insurance Act [Long-Term Insurance Act, 1998 (Act 52 of 1998) or Short-Term Insurance Act, 1998 (Act 53 of 1998)] or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990). Insured amounts to include VAT.			
	New works [10.1.1] With a deductible not exceeding 5% of each and every claim	Contract sum plus 10%	Not Applicable
Or	Works with practical completion in sections [10.2] With a deductible not exceeding 5% of each and every claim	Contract sum plus 10%	Not Applicable
Or	Works with alterations and additions [10.3] (reinstatement value of existing structures with or including new works) With a deductible not exceeding 5% of each and every claim	Contract sum plus 10%	Applicable
	Direct contractors [10.1.1; 10.2] where applicable, to be included in the contract works insurance	RPQS to determine value	Not Applicable
	Free issue [10.1.1; 10.2] where applicable, to be included in the contract works insurance	RPQS to determine value	Not Applicable
	Escalation, professional fees and reinstatement costs must be included in the above respective insurances		Not Applicable
Supplementary insurance [10.1.2; 10.2]		Contract sum plus 10%	Applicable
Public liability insurance [10.1.3; 10.2]		R 5 000 000	Applicable
Removal of lateral support insurance [10.1.4; 10.2]		R PQS to determine value	Not Applicable
Other insurances [10.1.5]			
Hi Risk Insurance Refer B18.0 [10.1.5.1]		R PQS to determine value	Not Applicable
Other insurances: If applicable, description 1:		R PQS to determine value	Not Applicable
Other insurances; If applicable, description 2:		R PQS to determine value	Not Applicable

Tender / Quotation no: MTH01/2025

B 7.0 Obligations of the employer [12.1]

Existing premises will be in use and occupied [12.1.2]	Applicable
If applicable, description: Existing Magistrate Offices are to remain fully operational throughout the contract. Existing offices to be fully decanted to nearby vacant site and offices to be accommodated in temporary prefabricated units for the duration of the project and then relocated back to the renovated facility on completion.	
Restriction of working hours [12.1.2]	Not Applicable
If applicable, description: N/A	
Natural features and known services to be preserved by the contractor [12.1.3]	Applicable
If applicable, description: The site is an existing facility and care must be taken with existing services both known and unknown.	
Restrictions to the site or areas that the contractor may not occupy [12.1.4]	Not Applicable
If applicable, description: N/A	
Supply of free issue of material and goods [12.1.10]	Not Applicable
If applicable, description: N/A	

B 8.0 Appointment of Nominated Subcontractors [14.0]

Not Applicable	If applicable, description of specialisation
Specialisation 1	N/A
Specialisation 2	N/A
Specialisation 3	N/A
Specialisation 4	N/A
Specialisation 5	N/A

B 9.0 Appointment of Selected Subcontractors [15.0]

Not Applicable	If applicable, description of specialisation
Specialisation 1	N/A
Specialisation 2	N/A
Specialisation 3	N/A
Specialisation 4	N/A
Specialisation 5	N/A

Tender / Quotation no: MTH01/2025

B 10.0 Appointment of Direct Contractors [16.0]

Not Applicable	If applicable, description of extent of work [12.1.11]
Extent of work	N/A
Extent of work	N/A
Extent of work	N/A
Extent of work	N/A
Extent of work	N/A

B 11.0 Works to be completed in sections [20.1]

Applicable	If applicable, description of sections
Section 1	Decanting and Establishment of Decanting Site
Section 2	Refurbishment/Construction of Entire Court Building Site
Section 3	Decanting back to Main Court Building Site & De-establishment of Decanting site
Section 4	N/A
Section 5	N/A
Section 6	N/A
Remainder of the works. N/A	

B 12.0 Contract period [B18: 1.2], Construction period [B18: 1.1], Possession of site [12.1.5], Practical Completion [19.0; 20.0], Works Completion Refer B18.0 [19.8], Final Completion [21] and Penalties [24.0]

B12.1 Contract Period

Contract period [B18: 1.2]: Period in months as indicated, include the time from the date of award (commencement date) for submitting contractual obligatory documents, submission of Health & Safety Plan and approval, period for obtaining the Construction Permit (if applicable), the Construction Period and the Defect Liability Period up to and including Final Completion	
The contract period is determined as follows (Period/s indicated in months):	
Period to submit contractual obligatory documents including submission and approval of health and safety plan by the appointed Health & Safety Agent	1

Tender / Quotation no: MTH01/2025

Period to obtain Construction Permit from Department of Labour upon approval of the Health & Safety Plan by the appointed Health & Safety Agent	1 month
Total construction period for the Works as a whole up to and including Practical Completion, as indicated below [24.1]	22 months
Period to achieve Works Completion Refer B18.0 [19.8]	1 month
Defect liability period up to and including Final Completion	3
Total Contract Period [B18: 1.2]	25 Months
Penalty amount per calendar day for late submission of contractual obligatory documents: Ten percent (10%) of the penalty amount per calendar day for late Practical Completion, excluding VAT. [24.1]	R 0.015/R100 of contract value

B12.2 Construction Period for completion of the Works as a whole

Construction period [B18: 1.2] and Practical Completion for the Works as a whole [19.0] The time for achieving Practical Completion of the whole of the Works is measured from the date of possession of the site by the contractor inclusive of all public holidays, special non-working days and builders' holiday shut down periods .	Applicable
The date for practical completion for the works as a whole shall be the period in months as indicated, starting from the date of possession of the site by the contractor inclusive of all special non-working days and builders' holiday shut down periods [12.2.7; 24.1]	22 Months
Period for inspection in working days by the principal agent [19.3]	5 days
Penalty amount per calendar day for late Practical Completion , excluding VAT. [24.1]	R0.015/R100 of contract value
Penalty amount per calendar day for late Works Completion Refer B18.0 [19.8]: Thirty percent (30%) of penalty amount per calendar day for late Practical Completion, excluding VAT.	R 0.0045/R100 of contract value
Penalty amount per calendar day for late Final Completion [21]: Fifteen percent (15%) of penalty amount per calendar day for late Practical Completion, excluding VAT.	R 0.00225/R100 of contract value

B12.3 Construction Period for completion of the Works in portions

Construction period [B18: 1.1] and Practical completion for portions of the Works [20.0]	Applicable					
Portions of the Works in sections:	1	2	3	4	5	6
Period for inspection by the principal agent in working days [19.3]	2 days	5 days	2 days			
The date for practical completion shall be the period in months as indicated from the date of possession of the site by the contractor [12.2.7; 24.1]	3 months	18 months	1 month			

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The date for practical completion for the whole of the Works, if applicable shall be the period in months as indicated from the date of possession of the site by the contractor inclusive of all public holidays, special non-working days and builders' holiday shut down periods [12.2.7; 24.1]	22 Months
Penalty for late Practical Completion, if completion in sections is required , excluding VAT	
The penalty amount per day for failing to complete section 1 of the Works is:	R 0.11/R100 of contract value
The penalty amount per day for failing to complete section 2 of the Works is:	R 0.015/R100 - contract value
The penalty amount per day for failing to complete section 3 of the Works is:	R 0.275/R100 - contract value
The penalty amount per day for failing to complete section 4 of the Works is:	R N/A
The penalty amount per day for failing to complete section 5 of the Works is:	R N/A
The penalty amount per day for failing to complete section 6 of the Works is:	R N/A
The penalty amount per day for failing to complete the whole of the Works, if applicable, is:	R N/A
Penalty amount per calendar day for late Works Completion Refer B18.0 [19.8]: To be calculated at Thirty percent (30%) of penalty / calendar day to complete each section and the whole of the Works , excluding VAT	
Penalty amount per calendar day for late Final Completion [21]: To be calculated at Fifteen percent (15%) of penalty / calendar day to complete each section and the whole of the Works , excluding VAT	

B 13.0 Criteria to achieve Practical Completion [19.0; 20.0]

Criteria to achieve Practical Completion not covered in the definition of practical completion	
13.1	Obtain Occupation Certificate from the relevant authority prior to issuing the Practical or Sectional Completion certificate
13.2	All relevant CoCs
13.3	All guarantees
13.4	Training on electrical, security and mechanical installations if contractually required
13.5	Maintenance / operating manuals
13.6	CPG and cidb BUILD programme achievement certificates submitted with substantiating documentation
13.7	Completion of practical completion list issued by Principal Agent
13.8	
13.9	
13.10	

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B 14.0 Defects liability period [21.0]

Extended defects liability period: Refer B18.0 [21.13]

Applicable	If applicable, description of applicable elements
14.1	Emergency generator/s
14.2	Air conditioning system and plant
14.3	Security system/s (e.g. Access control, Intruder alarm, etc.)
14.4	Electrical equipment (e.g. Electric operated doors, Electric motors, etc.)
14.5	Lifts
14.6	Mechanical equipment (e.g. Fire detection, Fire suppression system, Kitchen equipment, etc.)
14.7	Civil works
14.8	Landscaping including automated systems (irrigation)
14.9	
14.10	

B 15.0 Payment [25.0]

Date of month for issue of regular payment certificates Refer B18.0 [25.2]	25
Contract price adjustment / Cost fluctuations Refer [25.3.4; 26.9.5]	Applicable
If applicable, method to calculate	CPAP - Haylett Formula
Employer shall pay the contractor within: Refer B18.0 [25.10]	Thirty (30) calendar days

B 16.0 Dispute resolution [30.0]

Mediation	Applicable
Name of nominating body	Association of Arbitrators (Southern Africa)
Appointment of Mediator	State Attorney
Litigation	Court with Jurisdiction

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B 17.0 JBCC® General Preliminaries - selections

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

Provisional bills of quantities [P2.2]		Applicable
Availability of construction information [P2.3]		Applicable
Previous work - dimensional accuracy - details of previous contract(s) [P3.1]		Applicable
Previous work - defects - details of previous contract(s) [P3.2]		Applicable
Inspection of adjoining properties - details [P3.3]		Applicable
Handover of site in stages - specific requirements [P4.1]		Applicable
Enclosure of the works - specific requirements [P4.2]		Applicable
Geotechnical and other investigations - specific requirements [P4.3]		Applicable
Existing premises occupied - details [P4.5]		Applicable
Services - known - specific requirements [P4.6]		Applicable
Water [P8.1]	By contractor	Applicable
	By employer	Not Applicable
	By employer – metered	Not Applicable
Electricity [P8.2]	By contractor	Applicable
	By employer	Not Applicable
	By employer – metered	Not Applicable
Ablution and welfare facilities [P8.3]	By contractor	Applicable
	By employer	Not Applicable
Communication facilities - specific requirements [P8.4]		Applicable
Protection of the works - specific requirements [P11.1]		Applicable
Protection / isolation of existing works and works occupied in sections - specific requirements [P11.2]		Not Applicable
Disturbance - specific requirements [P11.5]		Applicable
Environmental disturbance - specific requirements [P11.6]		Not Applicable

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B 18.0 SPECIFIC CHANGES MADE TO JBCC® DOCUMENTATION

[Details of changes made to the provisions of **JBCC** standard documentation]

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

1.2	<p>Definitions</p> <p>The following definitions replace corresponding definitions or are added to the definitions in the JBCC PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018), whatever the case may be.</p> <p>ADVERSE WEATHER CONDITIONS: Adverse weather and inclement weather has the same meaning and used interchangeably and means any weather conditions i.e.: Rain, wind, snow, frost, temperature (cold or heat) that are not in the norm for the area where the construction takes place and during which no work is possible on site.</p> <p>AGREEMENT: The completed Form of Offer and Acceptance, the completed JBCC® Principal Building Agreement and contract data for organs of state and other public sector bodies, the contract drawings, the priced document and any other documents reduced to writing and signed by the authorised representative or representatives of the parties.</p> <p>CONSTRUCTION PERIOD: The period commencing on the date of possession of the site by the contractor and ending on the date of practical completion.</p> <p>CONTRACT PERIOD: The period commencing on the date of the letter of acceptance and ending on the date of final completion.</p> <p>COST FLUCTUATION shall mean contract price adjustment provision (CPAP) for the adjustment of fluctuation in the cost of labour, plant, material and goods as stated in the schedule.</p> <p>DEFAULT INTEREST: No clause.</p> <p>GUARANTEE FOR CONSTRUCTION: A security in terms of the DPWI's Guarantee for Construction form/s, obtained by the contractor from an institution approved by the employer [CD].</p> <p>INTEREST: The interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999) as amended, calculated as simple interest, in respect of debts owing to the State, and will be the rate as published by the Minister of Justice and Correctional Services from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No 55 of 1975) as amended, calculated as simple interest, in respect of debts owing by the State.</p> <p>LETTER OF ACCEPTANCE: The letter of formal acceptance of the Contractor's or Service Provider's Tender / Bid, issued and signed by the Employer.</p> <p>PAYMENT CERTIFICATE: A certificate issued at regular agreed intervals [CD] by the principal agent to the parties certifying the amount due and payable in terms of clause 25.3.</p> <p>PRINCIPAL AGENT: The person or entity appointed by the employer and named in the contract data for organs of state and other public sector bodies. In the event of a principal agent not being appointed, then all the duties and obligations of a principal agent as detailed in the agreement shall be fulfilled by the employer's representative as named in the contract data for organs of state and other public sector bodies.</p>
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CONTRACT SPECIFIC DATA

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

The following contract specific data, referring to the General Conditions of Contract for Construction Works, JBCC PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018), are applicable to this Contract:

3.3	Replace clause with the following: This agreement shall come into force on the date of letter of acceptance and continue to be of force and effect until the end of the latent defects liability period [22.0] notwithstanding termination [29.0] or the certification of final completion [21.0] and final payment [25.0].
4.2	Refer to clause 6.7 [CD].
4.3	Replace clause with the following: Where a contractor cedes any right or any monies due to or to become due under this agreement as security in favour of a financial institution, the prior written consent of the employer, which consent shall not be unreasonably withheld, must be obtained.
5.2	Replace last sentence with the following: The original signed agreement shall be held by the Employer.
5.4	Replace clause with the following: The Bills of Quantities shall not be used as a specification of material and goods or methods unless so instructed by the Principal Agent. The contractor may not use the Bills of Quantities for purpose of ordering material. All dimensions and quantities must be determined on site before ordering. In the event of discrepancy between the drawings and Bills of Quantity, the drawings shall take preference.
5.5	Replace clause with the following: The parties may publish or disclose on any platform only the contract scope and contract amount.
6.5	Replace clause with the following: Where the principal agent and/or an agent fails to act or is unable to act or ceases to be the principal agent or an agent in terms of this agreement, the employer may appoint another principal agent and/or an agent, be it temporary or permanently.
6.7	Add the following as clause 6.7: In terms of the clauses listed hereunder, the employer has retained its authority and has not given a mandate to the principal agent, notwithstanding other provisions in the contract. The employer shall sign all documents in relation to clauses 4.2, 14.1.4, 14.4.1, 14.6, 15.1.4, 15.4.1, 23.1, 23.2, 23.3, 23.7, 23.8, 26.1, 26.7, 26.12.
7.2	Replace first sentence with the following: Any design responsibility undertaken by a subcontractor shall not devolve on the contractor except for items that require specific component design and or compatibility design and or shop drawings and or the assembly thereof.
8.4	Replace clause with the following: The contractor shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the employer against any such damage. The contractor shall take such precautions and security measures and other steps for the protection and security of the works as the contractor may deem necessary.
9.2.7	Add the following to the end of the first sentence: ".... due to no fault of the contractor".

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9.2.9	No clause.
9.2.10	No clause.
9.3	Add the following as clause 9.3: The employer's rights to claim damages for the contractor's omissions and actions will not be affected.
10.1	Replace clause with the following: The party responsible shall effect and keep the respective insurances [CD] in force, in favour of the employer as beneficiary, from the date of possession of the site until the issue of the certificate of practical completion and with an extension to cover the contractor's obligations after the date of practical completion [8.2.2].
10.1.5.1	Add the following as clause 10.1.5.1: Hi Risk Insurance In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable sub-surface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:
10.1.5.1.1	Add the following as clause 10.1.5.1.1: Damage to the works The contractor shall, from the date of possession of the site until the date of the certificate of practical completion, bear the full risk of and hereby indemnifies and holds harmless the employer against any damage to and/or destruction of the works consequent upon a catastrophic ground movement as mentioned above. The contractor shall take such precautions and security measures and other steps for the protection of the works as he may deem necessary. When so instructed to do so by the principal agent, the contractor shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works, at the contractor's own costs.
10.1.5.1.2	Add the following as clause 10.1.5.1.2: Injury to persons or loss of or damage to property The contractor shall be liable for and hereby indemnifies and holds harmless the employer against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above. The contractor shall be liable for and hereby indemnifies the employer against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable property, or personal property, or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract.
10.1.5.1.3	Add the following as clause 10.1.5.1.3: It is the responsibility of the contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.1.5.1.1 and 10.1.5.1.2. Without limiting the contractor's obligations in terms of the contract, the contractor shall, within twenty-one (21) calendar days of the date of letter of acceptance, but before commencement of the works, submit to the employer proof of such insurance policy.

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10.1.5.1.4	Add the following as clause 10.1.5.1.4: The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractor's default of his obligations as set out in 10.1.5.1.1; 10.1.5.1.2 and 10.1.5.1.3. Such losses or damages may be recovered from the contractor or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be considered one indivisible whole.
10.2	Replace clause with the following: Where practical completion in sections is required [20.0], or where the works is for alterations and additions, the contractor shall effect and keep in force contract works insurance [10.1.1], supplementary insurance [10.1.2], public liability insurance [10.1.3] and where applicable, removal of lateral support insurance [10.1.4] and other insurances [10.1.5) in favour of the employer as beneficiary.
10.6	No clause.
10.11	Add the following as clause 10.11 In the event that an insurer dispute the amount of the claim to be paid to the employer, the contractor shall be liable to the employer for the difference between the claim (as determined by the employers QS appointed on the project) made by the employer and the amount that the insurer is willing to pay.
11.1	Add the following to clause 11.1. In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT). In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of C 1.0 Securities, as stated in the schedule. Such security shall be provided to the employer within fifteen (15) working days from contract commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within fifteen (15) working days from the contract commencement date, the security in terms of C 1.0 Option C shall be deemed to have been selected. The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandis</i> in terms of 25.12.1 - 25.12.5.
11.1.1	No clause.
11.1.2	No clause.
11.2.2	No clause.
11.3	No clause.
11.4.1	Replace clause 11.4.1 with the following: Hand over the site to the contractor and withhold an amount equal to ten per cent (10%) of each interim payment certificate until practical completion is achieved. The value certified shall be subject to the adjustments in terms of 25.12.6 to 25.12.10.
11.5	No clause.
11.6	No clause.

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11.7	No clause.
11.8	No clause.
11.9	No clause.
11.10	No clause.
11.11	Add the following as clause 11.11 Where the security as a cash deposit of ten per cent (10%) of the contract sum (excluding VAT) has been selected:
11.11.1	Add the following as clause 11.11.1 The contractor shall furnish the employer with a cash deposit equal in value to ten percent (10%) of the contract sum (excluding VAT) within fifteen (15) working days from the contract commencement date. Failure to furnish the employer with a cash deposit within fifteen (15) working days clause 11.4 will apply <i>mutatis mutandis</i> .
11.11.2	Add the following as clause 11.11.2 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 27.0 provided that the employer notifies the Contractor in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor.
11.11.3.	Add the following as clause 11.11.3 Within fifteen (15) working days of the date of practical completion of the works the employer shall reduce the cash deposit to an amount equal to three per cent (3%) of the contract value (excluding VAT).
11.11.4	Add the following as clause 11.11.4 Within fifteen (15) working days of the date of final completion of the works the employer shall reduce the cash deposit to an amount equal to one per cent (1%) of the contract value (excluding VAT).
11.11.5	Add the following as clause 11.11.5 On the date of payment of the amount in the final payment certificate, the employer shall refund the remainder of the cash deposit to the contractor.
11.11.6	Add the following as clause 11.11.6 The parties expressly agree that neither the employer nor the contractor shall be entitled to cede the rights to the deposit to any third party.
11.12	Add the following as clause 11.12 Where security as a variable construction guarantee of ten percent (10%) of the contract sum (excluding VAT) has been selected:
11.12.1	Add the following as clause 11.12.1 The contractor shall furnish the employer with an acceptable variable construction guarantee equal in value to ten per cent (10%) of the contract sum (excluding VAT) within fifteen (15) working days after issuance of the letter of acceptance. Failure to submit an acceptable variable construction guarantee within fifteen (15) working days clause 11.4 will apply <i>mutatis mutandis</i> .
11.12.2	Add the following as clause 11.12.2 The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form included in the invitation to tender.

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11.12.3	Add the following as clause 11.12.3 The employer shall return the variable construction guarantee to the contractor within fourteen (14) calendar days of it expiring.
11.12.4	Add the following as clause 11.12.4 Where the employer has a right of recovery against the contractor in terms of 27.0, the employer shall issue a written demand in terms of the variable construction guarantee.
11.13	Add the following as clause 11.13 Where security is a fixed construction guarantee of five per cent (5%) of the contract sum (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the payment certificate (excluding VAT) has been selected:
11.13.1	Add the following as clause 11.13.1 The contractor shall furnish a fixed construction guarantee to the employer equal in value to five per cent (5%) of the contract sum (excluding VAT).
11.13.2	Add the following as clause 11.13.2 The fixed construction guarantee shall come into force on the date of issue and shall expire on the date of the last certificate of practical completion.
11.13.3	Add the following as clause 11.13.3 The employer shall return the fixed construction guarantee to the contractor within fourteen (14) calendar days of it expiring.
11.13.4	Add the following as clause 11.13.4 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandis</i> in terms of 25.12.1 - 25.12.5.
11.13.5	Add the following as clause 11.13.5 Where the employer has a right of recovery against the contractor in terms of 27.0, the employer shall be entitled to issue a written demand in terms of the fixed construction guarantee or may recover from the payment reduction or from both.
11.14.1	Add the following as clause 11.14.1 Where security as a cash deposit of five per cent (5%) of the contract sum (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) has been selected:
11.14.2	Add the following as clause 11.14.2 The contractor shall furnish the employer with a cash deposit equal in value to five per cent (5%) of the contract sum (excluding VAT) within fifteen (15) working days from the contract commencement date. Failure to submit a cash deposit within fifteen (15) working days clause 11.4 will apply <i>mutatis mutandis</i> .
11.14.3	Add the following as clause 11.14.3 Within fifteen (15) working days of the date of practical completion of the works the employer shall refund the cash deposit in total to the contractor.
11.14.4	Add the following as clause 11.14.4 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandis</i> in terms of 25.12.1 - 25.12.5.
11.14.5	Add the following as clause 11.14.5 Where the employer has a right of recovery against the contractor in terms of 27, the employer may recover from the payment reduction or cash deposit or from both.

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11.15	Add the following as clause 11.15 Where security as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT) has been selected:
11.15.1	Add the following as clause 11.15.1 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandis</i> in terms of 25.12.6 to 25.12.10.
11.15.2	Add the following as clause 11.15.2 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 27.0 provided that the employer notifies the Contractor in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor.
11.16	Add the following as clause 11.16 Payments made by the guarantor to the employer in terms of the fixed or variable construction guarantee shall not prejudice the rights of the employer or contractor in terms of this agreement.
11.17	Add the following as clause 11.17 Should the contractor fail to furnish the security in terms of 11.2 the employer, in his sole discretion, and without notification to the contractor, is entitled to change the contractor's selected form of security to that of a ten per cent (10%) payment reduction of the value certified in the payment certificate (excluding VAT).
12.1.1	No Clause.
12.1.5	Replace clause with the following: Give possession of the site to the contractor within ten (10) working days after approval of the Health and Safety Plan or the issue of a construction permit by the Department of Labour, if applicable, after the contractor complied with the terms of 12.2.22.
12.1.6	No clause.
12.1.8	No clause.
12.2.2	Replace clause with the following: The priced Bills must be submitted to the Employer within fourteen (14) calendar days from date of request. Where the priced document contains errors or discrepancies and/or prices considered by the employer or principal agent to be imbalanced or unreasonable the employer or principal agent and the contractor shall adjust such prices without any change to the contract sum .
12.2.5	Replace clause with the following: Effect and keep in force insurances in favour of the employer as beneficiary where the contractor is responsible for providing insurances [10.0] [CD].
12.2.13	Replace clause with the following: Designate a competent person full time on site to continuously administer and control the works on site and to receive and implement notices and contract instructions on behalf of the contractor.
12.2.22	Insert the following clause as 12.2.22: Within fourteen (14) working days of the date of the letter of acceptance submit to the principal agent an acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993).

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12.2.23	Insert the following clause as 12.2.23: The contractor shall within reasonable time inform the agents regarding inspection of the works before covering / closing [B 12.0].
14.1.4	Refer to clause 6.7 [CD].
14.1.5	No clause.
14.4.1	Replace "principal agent" with "employer" [6.7 [CD]].
14.6	Refer to clause 6.7 [CD].
15.0	See clause 6.7 above for clauses, 15.5.
15.1.2	Replace clause with the following: The principal agent shall call for tenders from a list of tenderers agreed between the contractor and the employer.
15.1.4	Refer to clause 6.7 [CD].
15.1.5	No clause.
15.4.1	Replace "principal agent" with "employer" [6.7 [CD]].
17.4	Replace clause with the following: The contractor shall comply with and duly execute all contract instructions except any contract instruction for additional work issued after the date of practical completion other than making good physical loss and repairing damage to the works in terms of 8.0 and 21.
17.6	Add the following as clause 17.6: Minutes of meetings shall not constitute a site instruction unless reduced to a written contract instruction issued by the principal agent in terms of this contract / agreement.
19.5	Replace clause with the following: On issue of the only or last certificate of practical completion the employer shall be entitled to possession of the works and the site. On issue of the certificate of practical completion for a section, the employer shall be entitled to possession of such section.
19.8	Add the following as: 19.8 WORKS COMPLETION (1) Within seven (7) calendar days of the date of practical completion the principal agent shall issue to the contractor a works completion list defining the outstanding work and defects apparent at the date of practical completion to be completed or rectified to achieve works completion. (2) Where, in the opinion of the contractor, the works completion list has been completed the contractor shall notify the principal agent who shall inspect within seven (7) calendar days of receipt of such a notice. Where, in the opinion of the principal agent, the Works Completion list: (2)(a) Has been satisfactorily completed, the principal agent shall forthwith issue a certificate of Works Completion to the contractor with a copy to the employer

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19.8 Continued	<p>(2)(b) Has not been satisfactorily completed, the principal agent shall forthwith identify the works completion list items that are not yet complete and inform the contractor thereof. The contractor shall repeat the procedure in terms of 19.8(2)</p> <p>(3) Should the principal agent not issue a works completion list, in terms of 19.8 (1) or 19.8 (2) (b), within seven (7) calendar days from the end of the inspection period, the contractor shall notify the employer and principal agent. Should the principal agent not issue such Works Completion list within seven (7) calendar days of receipt of such notice, the employer may within seven (7) calendar days issue to the contractor a Works Completion list. Should the employer:</p> <p>(3)(a) Not issue such works completion list within seven (7) calendar days, then the certificate of Works Completion shall be deemed to have been issued on the date of expiry of the initial notice period and works completion shall be deemed to have been achieved on such date</p> <p>(3b) Issue a works completion list and the work on Works Completion list not have been completed or where further defects have become apparent, the employer shall forthwith identify such items on the updated works completion list and notify the contractor. The contractor shall repeat the procedure in terms of 19.8(2) (b) until such items have been completed to the satisfaction of the employer</p> <p>(4) Should the works completion list not be completed to the satisfaction of the employer within a period of twenty (20) working days of the issue final works completion list the contractor shall be liable to a daily penalty as described in B13.</p> <p>(5) The defects liability period in terms of 21.1 shall commence with the issue or deemed issue of the certificate of Works Completion in terms of 19.8(2)(a) or 19.8(3).</p>
20.2.1.A	<p>Add the following as: 20.2.1.A A certificate of Works Completion [19.8]</p>
21.1	<p>Replace clause 21.1 with the following: The defects liability period for the works shall commence on the calendar day following the date of works completion and end at midnight (00:00) ninety (90) calendar days from the date of works completion [CD] or when work on the list for completion has been satisfactorily attended to [21.6], whichever is the later (if we use works completion).</p>
21.6	<p>Replace clause 21.6 with the following: On the expiry of the ninety (90) calendar days defects liability period [21.1] for items not indicated as items with an extended liability as indicated in B14 and on receipt of the contractor's notice to the principal agent.</p> <p>And/or</p> <p>On the expiry of the defects liability period as indicated in B14, for items indicated in B14 and on receipt of the contractor's notice to the principal agent, the principal agent shall:</p> <p>(1) inspect the works And within ten (10) working days either issue a list for final completion detailing all outstanding work or defects that must be attended to, or rectified to achieve final completion or</p> <p>(2) issue the certificate of final completion to the contractor with a copy to the employer for that part of the works where defects liability period has expired.</p>
21.6.1.	Omit clause.

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21.6.2	Omit clause.
21.13	Add the following as clause 21.13 The ninety (90) calendar day defects liability period for the works [21.1] is replaced with an extended defects liability period of three hundred and sixty-five (365) calendar days in respect of the listed applicable elements in B14.
21.14	Add the following as clause 21.14 Penalties will be applied if the items on the completion list have not been attended to within a period of ninety (90) calendar days [21.1]. If additional defect items have been added to the list during this period, then the Principal Agent and Contractor will agree on a revised completion date. Failing in achieving the revised date will result in penalties being applied [B12.0].
22.3.2	No clause.
23.1	Refer to clause 6.7 [CD].
23.2	Refer to clause 6.7 [CD].
23.2.13	No clause.
23.3	Replace 23.3 with the following: Further circumstances that delays practical completion due to any other cause beyond the contractor's reasonable control that could not have reasonably been anticipated and provided for which the contractor may be entitled to a revision of the date for practical completion, with or without an adjustment of the contract value as determined by the Employer [6.7 CD].
23.7	Refer to clause 6.7 [CD].
23.8	Refer to clause 6.7 [CD].
24.1	Replace clause 24.1 with the following: Where the contractor fails to bring the works , or a section thereof, to practical-, works-, or final- completion by the applicable completion date [B10 CD], or the revised applicable completion date, the contractor shall be liable to the employer for the penalty [B10 CD].
24.2	Replace clause 24.2 with the following: Where the employer elects to levy such penalty the employer , or the principal agent on instruction from the employer , shall give notice thereof to the contractor . The principal agent shall determine the penalty due from the later of the date for practical- works-, or final- completion [B10 CD], or the revised date for practical- works-, or final- completion , up to and including the earlier of:
24.2.1	Replace clause 24.2.1 with the following: The actual or deemed date of practical-, works- or final- completion of the works , or a section thereof [23.7.1].
25.2	Replace clause 25.2 with the following: The principal agent shall issue at regular agreed intervals [CD] payment certificates, to the contractor with a copy to the employer, up to and including practical completion. Interim Payment certificates may be issued to the contractor between practical completion and the final payment certificate. A payment certificate may be for a nil or negative amount.

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25.3	<p>Add the following to clause 25.3:</p> <p>25.3.12 Monthly Local content report.</p> <p>25.3.13 EPWP / NYS payment register, labour reports and certified ID document of EPWP/ NYS beneficiaries, Contract between Contractor and EPWP/ NYS beneficiaries, attendance register (if applicable).</p> <p>25.3.14 Tax Invoice.</p> <p>25.3.15 Labour intensive report.</p> <p>25.3.16 Contract participation goal and cidb BUILD programme reports.</p>
25.5	No Clause.
25.6	<p>Replace clause 25.6 with the following:</p> <p>Materials and goods will only be certified and paid for upon providing proof of full payment to the supplier and proof of transfer of ownership from the supplier to the contractor by the contractor. Once paid, material and goods shall become the property of the employer and shall not be removed from site without the written authority of the Employer.</p>
25.7.5	No Clause.
25.10	<p>Replace clause 25.10 with the following:</p> <p>The employer shall pay the contractor the amount stipulated in an issued payment certificate, correct in all material respects, within thirty (30) calendar days from the date of receiving the payment certificate and invoice including all other substantiating documentation for items certified in the payment certificate.</p>
25.12	<p>Replace clauses 25.12 to 25.12.3 with the following:</p> <p>The value certified shall be subject to the following percentage adjustments :</p> <p>(Clauses 25.12.1 to 25.12.5 shall be applicable to a contract sum up to R1 million. In the event of a contract sum more than R1 million for Options D & E (C 1.0 Securities [11.0]) Clauses 25.12.1 to 25.12.5 shall be applicable)</p> <p>25.12.1 Where a security is selected in terms of C 1.0 Securities [11.0] the value of the works in terms of 25.1 and of the materials and goods in terms of 25.4 shall be certified in full. The value certified shall be subject to the following percentage adjustments:</p> <p>25.12.2 Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of practical completion.</p> <p>25.12.3 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of works completion and up to but excluding the date of final completion.</p> <p>25.12.4 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 26.</p> <p>25.12.5 One hundred per cent (100%) of such value in the final payment certificate in terms of 26 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate.</p>

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25.12 Continued	<p>(Clauses 25.12.6 to 25.12.10 shall be applicable to a contract sum more than R1 million for Option C (C 1.0 Securities [11.0])</p> <p>25.12.6 Where security is a payment reduction in term of Option C, the value of the works in terms of 25.1 and materials and goods in terms of 25.4 shall be certified in full. The value certified shall be subject to the following percentage adjustments:</p> <p>25.12.7 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion.</p> <p>25.12.8 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion.</p> <p>25.12.9 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 26.</p> <p>25.12.10 One hundred per cent (100%) of such value in the final payment certificate in terms of 26 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate.</p>
26.1	Refer to clause 6.7 [CD].
26.4.3	Omit clause.
26.7	Refer to clause 6.7 [CD].
26.10	<p>Replace 26.10 with the following:</p> <p>The principal agent shall prepare the final account in consultation with the employer and issue the final account, to the contractor within sixty (60) working days of the date of practical completion.</p>
26.12	Refer to clause 6.7 [CD].
27.1. 2	<p>Replace 27.1.2 with the following:</p> <p>Interest due to late payment only.</p>
27.1.4	<p>Replace 27.1.4 with the following:</p> <p>Interest due to late payment only.</p>
27.1.5	No clause.
27.5	<p>Add the following as clause 27.5:</p> <p>Where the employer decides to recover an amount due in terms of 27.2 from a construction guarantee, cash deposit or retention money held as security, the employer shall issue a written demand to the contractor before recovering the amount. Should such amount not be paid to the employer within fourteen (14) calendar days of the date-of notice by the employer, the employer may recover such an amount from the security.</p>

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Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

27.6	Add the following as clause 27.6: Where a provisional sequestration or provisional liquidation order has been granted or where an order has been granted which commences sequestration, liquidation, bankruptcy, receivership, winding-up or any similar effect, against the contractor or this agreement is cancelled in terms of 29, the employer may issue a demand to the guarantor in terms of the construction guarantee or advance payment guarantee held as security.
28.0	No clause.
28.1	No clause.
28.1.1	No clause.
28.1.2	No clause.
28.1.3	No clause.
28.1.4	No clause.
28.1.5	No clause.
28.2	No clause.
28.3	No clause.
28.4	No clause.
29.1.4	Add the following as clause 29.1.4: The contractor's estate has been sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa.
29.1.5	Add the following as clause 29.1.5: The contractor has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
29.1.6	Add the following as clause 29.1.6: Honour his obligations in terms of clauses 10.1.5.1.3, 11.4.1 and 12.2. sub-clauses 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 22.
29.7	Replace clause 29.7 with the following: The employer, on notice to the contractor, may recover damages from the contractor from the date of termination including, but not limited to, additional costs incurred in the completion, consultant cost, rental of alternative accommodation, invitation of completion tenders, salaries of officials and safeguarding the site, of the remaining work [25.3.7; 27.1.3].
29.9	Replace clause 29.9 with the following: The employer has the right of recovery against the contractor , where applicable, [CD] from: The guarantee for construction (variable) until the final payment has been made; or The guarantee for construction (fixed) until the date of practical completion; or The payment reduction until the final payment is made; or The cash deposit made as security until the final payment is made.
29.14.1	No clause.
29.14.3	No clause.

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29.14.4	No clause.
29.14.5	No clause.
29.14.6	No clause.
29.14.7	No clause.
29.15	No clause.
29.16	No clause.
29.17.3	No clause.
29.17.6	No clause.
29.21.5	No clause.
29.22	No clause.
29.23	No clause.
29.25.3	No clause.
29.25.4	No clause.
29.27	No clause.
30.2	Replace clause 30.2 with the following: Where such disagreement is not resolved within ten (10) working days of receipt of such notice it shall be deemed to be a dispute and shall be submitted to Mediation as a first method of dispute resolution failing which the parties will resort to Litigation.
30.3 to 30.7.7	No clauses.
30.8	Replace clause 30.8 with the following: The parties may, by agreement and at any time before Litigation, refer a dispute to mediation, in which event:
30.8.1	No clause.
30.8.2	Replace clause 30.8.2 with the following: The appointment of a mediator, the procedure, and the status of the outcome shall be agreed between the parties.
30.8.3	Replace clause 30.8.3 with the following: Regardless of the outcome of a mediation the parties shall bear their own costs concerning the Mediation and equally share the costs of the mediator and related expenses.
30.9	Replace clause 30.9 with the following: Institution of Litigation shall be commenced and process served within three (3) year from the date of existence of the dispute, failing which the dispute shall lapse.
30.10	No clause.
30.12	No clause.

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B 19.0 CONTRACT PARTICIPATION GOAL TARGETS AND CIDB B.U.I.L.D. PROGRAMME

The contractor shall achieve in the performance of the contract the following Contract Participation Goals (CPGs) as described in PG-01.2 (EC): Scope of Work and PG-02.2 (EC): Pricing Assumptions and in accordance with the feasibility study, which forms part of the specifications in the CPG Section of the Specification of this contract.

(a)	Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Not applicable
(b)	Minimum Targeted Local Building Material Suppliers Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Applicable
(c)	Minimum Targeted Local Labour Skills Development Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Not applicable
(d)	cidb BUILD Programme: Minimum Targeted Enterprise Development Contract Participation Goal in accordance with the cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Applicable
(e)	cidb BUILD Programme: Minimum Targeted Contract Skills Development Goal in accordance with the cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No. 48491 of 28 April 2023. and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Applicable
(f)	DPWI National Youth Service training and development programme (NYS) – Condition of Contract.	Applicable
(g)	Labour Intensive Works – Condition of Contract.	Applicable
(h)		Select
(i)		Select

Tender / Quotation no: MTH01/2025

PART 2: CONTRACT DATA COMPLETED BY THE TENDERER:

C TENDERER'S SELECTIONS

C 1.0 Securities [11.0]

In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT).

In respect of contracts with a contract sum more than R1 million, the security to be provided by the contractor to the employer will be selected by the Contractor as indicated below:

Guarantee for construction: Select Option A, B, C, D or E

Option A	cash deposit of 10 % of the contract sum (excluding VAT)
Option B	variable construction guarantee of 10 % of the contract sum (excluding VAT) (DPW-10.3 EC)
Option C	payment reduction of 10% of the value certified in the payment certificate (excluding VAT)
Option D	cash deposit of 5% of the contract sum (excluding. VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding. VAT)
Option E	fixed construction guarantee of 5% of the contract sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) (DPW-10.1 EC)]

NB: Insurances submitted must be issued by either an insurance company duly registered in terms of the Insurance Act [Long-Term Insurance Act, 1998 (Act 52 of 1998) or Short-Term Insurance Act, 1998 (Act 53 of 1998)] or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.

Guarantee for payment by employer [11.5.1; 11.10]	Not applicable
Advance payment, subject to a guarantee for advance payment [11.2.2; 11.3]	Not applicable

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C 2.0 Payment of preliminaries [25.0]

Contractor's selection

Select Option A or B

Where the **contractor** does not select an option, Option A shall apply

Payment methods

Option A	The preliminaries shall be paid in accordance with an amount prorated to the value of the works executed in the same ratio as the amount of the preliminaries to the contract sum , which contract sum shall exclude the amount of preliminaries . Contingency sum(s) and any provision for cost fluctuations shall be excluded for the calculation of the aforesaid ratio
Option B	The preliminaries shall be paid in accordance with an amount agreed by the principal agent and the contractor in terms of the priced document to identify an initial establishment charge, a time-related charge and a final dis-establishment charge. Payment of the time-related charge shall be assessed by the principal agent and adjusted from time to time as may be necessary to take into account the rate of progress of the works

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations.

C 3.0 Adjustment of preliminaries [26.9.4]

Contractor's selection

Select Option A or B

Where the **contractor** does not select an option, Option A shall apply.

Provision of particulars

The **contractor** shall provide the particulars for the purpose of the adjustment of **preliminaries** in terms of his selection. Where completion in **sections** is required, the **contractor** shall provide an apportionment of **preliminaries** per **section**.

Option A	An allocation of the preliminaries amounts into Fixed, Value-related and Time-related amounts as defined for adjustment method Option A below, within fifteen (15) working days of the date of acceptance of the tender
Option B	A detailed breakdown of the preliminaries amounts within fifteen (15) working days of possession of the site . Such breakdown shall include, inter alia, the administrative and supervisory staff, the use of construction equipment , establishment and dis-establishment charges, insurances and guarantees, all in terms of the programme

Tender / Quotation no: MTH01/2025

Adjustment methods

The amount of **preliminaries** shall be adjusted to take account of the effect which changes in time and/or value have on **preliminaries**. Such adjustment shall be based on the particulars provided by the **contractor** for this purpose in terms of Options A or B, shall preclude any further adjustment of the amount of **preliminaries** and shall apply notwithstanding the actual employment of resources by the **contractor** in the execution of the **works**.

Option A	<p>The preliminaries shall be adjusted in accordance with the allocation of preliminaries amounts provided by the contractor, apportioned to sections where completion in sections is required</p> <p>Fixed - An amount which shall not be varied.</p> <p>Value-related - An amount varied in proportion to the contract value as compared to the contract sum. Both the contract sum and the contract value shall exclude the amount of preliminaries, contingency sum(s) and any provision for cost fluctuations.</p> <p>Time-related - An amount varied in proportion to the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4].</p>
Option B	<p>The adjustment of preliminaries shall be based on the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4]. The adjustment shall take into account the resources as set out in the detailed breakdown of the preliminaries for the period of construction during which the delay occurred.</p>

Failure to provide particulars within the period stated

Option A	<p>Where the allocation of preliminaries amounts for Option A is not provided, the following allocation of preliminaries amounts shall apply:</p> <p>Fixed - Ten per cent (10%) Value-related - Fifteen per cent (15%) Time-related - Seventy-five per cent (75%)</p> <p>Where the apportionment of the preliminaries per section is not provided, the categorised amounts shall be prorated to the cost of each section within the contract sum as determined by the principal agent</p>
Option B	<p>Where the detailed breakdown of preliminaries amounts for Option B is not provided, Option A shall apply</p>

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations.

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

C.1.3 Form of Guarantee

DPW-10.1 (EC): FIXED CONSTRUCTION GUARANTEE - JBCC 2000 PRINCIPAL BUILDING AGREEMENT (EDITION 6.2 OF MAY 2018)

Director-General
Department of Public Works and Infrastructure
Government of the Republic of South Africa

FOR ATTENTION

Department Public Works and Infrastructure
Private Bag X 5007
Mthatha
5099

Sir,

FIXED CONSTRUCTION GUARANTEE FOR THE EXECUTION OF A CONTRACT IN TERMS OF JBCC 2000 (EDITION 6.2 OF MAY 2018)

1. With reference to the contract between _____
_____ (hereinafter referred to as the "**contractor**") and the Government of the Republic of South Africa in its Department of Public Works and Infrastructure (hereinafter referred to as the "**employer**"), Contract/Tender No: **insert Contract / Tender No**, for the **insert description of works** (hereinafter referred to as the "contract") in the amount of R **insert amount, (insert amount in words)**, (hereinafter referred to as the **contract sum**),
I / We, _____
in my/our capacity as _____ and hereby
representing _____ (hereinafter referred to as the "**guarantor**") advise that the **guarantor** holds at the **employer's** disposal the sum of R **insert amount, (insert amount in words)** being 5% of the **contract sum** (excluding VAT), for the due fulfillment of the contract.
2. The **guarantor** hereby renounces the benefits of the exceptions *non numeratae pecunia; non causa debiti; excussionis et divisionis; and de duobus vel pluribus reis debendi* which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the **employer** the amount guaranteed, on receipt of a written demand from the **employer** to do so, stating that the **employer** has a right of recovery against the **contractor** in terms of 33.0 of the contract.
3. Subject to the above, but without in any way detracting from the **employer's** rights to adopt any of the procedures provided for in the contract, the said demand can be made by the **employer**, at any stage prior to the expiry of this guarantee.
4. The amount paid by the **guarantor** in terms of this guarantee may be retained by the **employer** on condition that upon the issue of the last final **payment certificate**, the **employer** shall account to the **guarantor** showing how this amount has been expended and refund any balance due to the **guarantor**.

Tender no: (Insert Tender Number)

5. The **employer** shall have the absolute right to arrange his affairs with the **contractor** in any manner which the **employer** deems fit and the **guarantor** shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the **guarantor**. Without derogating from the foregoing, any compromise, extension of the **construction period**, indulgence, release or variation of the **contractor's** obligation shall not affect the validity of this guarantee.
6. The **guarantor** reserves the right to withdraw from this guarantee at any time by depositing the guaranteed amount with the **employer**, whereupon the guarantor's liability ceases.
7. This guarantee is neither negotiable nor transferable, and
 - (a) must be surrendered to the **guarantor** at the time when the **employer** accounts to the **guarantor** in terms of clause 4 above, or
 - (b) shall lapse on the date of the last **certificate of practical completion**.
8. This guarantee shall not be interpreted as extending the **guarantor's** liability to anything more than payment of the amount guaranteed.

SIGNED AT _____ **ON THIS** _____ **DAY OF**
_____ **20**__

AS WITNESS

1. _____
2. _____

By and on behalf of

(insert the name and physical address of the guarantor)

NAME: _____

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

DATE: _____

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

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

PART C2 PRICING DATA

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

C.2.1 Pricing Instructions

PG-02.2 (EC) PRICING ASSUMPTIONS - JBCC 2000 PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY				
Tender / Quotation no:	MTH01/2025	WCS no:	054991 & 056942	Reference no:	

C2.1 Pricing Assumptions

The following items forms part of the Pricing Instructions:

GENERAL

The Standard for Uniformity in Construction Procurement published in terms of the Construction Industry Development Board (CIDB) Act, 2000 (Act no.38 of 2000), the Standardized Construction Procurement Documents for Engineering and Construction Works as issued by the CIDB and any other relevant documentation pertaining thereto must be studied and all principles in this regard must be applied to all procurement documentation, practices and procedures.

C2.1.1 BILLS OF QUANTITIES / LUMP SUM DOCUMENT

The **bills of quantities / lump sum document** forms part of and must be read and priced in conjunction with all the other documents forming part of the **contract documents**, the Standard Conditions of Tender, Conditions of Contract, Specifications, Drawings and all other relevant documentation.

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all cost and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based.

Each item shall be priced and extended to the "Total" column by the Tenderer, with the exception of the items for which only rates are required, or items which already have Prime Cost or Provisional Sums affixed thereto. If the Contractor omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.

No alterations, erasures, omissions or additions is to be made in the text and/or conditions of these Bills of Quantities. Should any such alterations, amendments, note/s or addition be made, the same will not be recognized, but reading of these Bills of Quantities as originally prepared by the Quantity Surveyor will be adhered to.

The contractor is cautioned that the use of any quantities appearing in these Bills of Quantities for the purpose of ordering material, it is done at own risk and no liability whatsoever will be admitted by the Employer or Quantity Surveyor for the correctness of such Quantities. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.

The prices and rates to be inserted by the Tenderer in the Bills of Quantities shall be the full inclusive prices to be paid by the Employer for the work described. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the

**PG-02.2 (EC) PRICING ASSUMPTIONS - JBCC 2000
PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)**

cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Market related prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out. The Employer reserves the right to balance the Bill rates where deemed necessary within the Tendered Amount.

A price or rate is to be entered against each item in the Bills of Quantities, whether the quantities are stated or not. An item against which no rate is/are entered, or if anything other than a rate or a nil rate (for example, a zero, a dash or the word "included" or abbreviations thereof) is entered against an item, it will also be regarded as a nil rate having been entered against that item, i.e. that there is no charge for that item. The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the Employer may also perform a risk analysis with regard to the reasonableness of such rates.

Should the full intent and meaning of any description not be clear, the bidder shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of National Best Practice.

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

The Tenderer is required to check the Bills of Quantities and the numbers of the pages and should any be found to be missing or in duplicate, or should any of the typing be indistinct, or any doubt of obscurity arise as to the meaning of any description or particulars of any item, or if this Tender Enquiry contains any obvious errors, then the Tenderer must immediately inform the Principal Agent and have them rectified or explained in writing as the case may be. No liability whatsoever will be admitted by reason of the Contractor having failed to comply with the foregoing instruction.

The contractor is cautioned that the use of any quantities appearing in these Bills of Quantities for the purpose of ordering material, it is done at own risk and no liability whatsoever will be admitted by the Employer or Quantity Surveyor for the correctness of such Quantities. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.

No alterations, erasures, omissions, or additions are allowed to be made to the text and/or conditions contained in these Bills of Quantities. If any such alteration, amendment, note or addition is made, it will not be recognised and the Bills of Quantities will be deemed to be as originally drawn up by the Quantity Surveyor.

A price or rate is to be entered against each item in the Bills of Quantities, whether the quantities are stated or not. An item against which no rate is/are entered, or if anything other than a rate or a nil rate (for example, a zero, a dash or the word "included" or abbreviations thereof) is entered against an item, it will also be regarded as a nil rate having been entered against that item, i.e. that there is no charge for that item. The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the Employer may also perform a risk analysis with regard to the reasonableness of such rates.

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

The Tenderer shall fill in rates for all items where the words "rate only" appear in the "Total" column. "Rate Only" items have been included where:

- (a) variations of specified components in the make-up of a pay item may be expected; and
- (b) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

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For 'Rate Only' items no quantities are given in the "Quantity" column but the quoted rate shall apply in the event of work under this item being required. The Tenderer shall however note that in terms of the Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as unbalanced.

Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the "PW 371" and the principles contained in the latest version of the Standard System for Measuring Builders' Work in South Africa. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the bidder shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of National Best Practice.

The price quoted against each item of this Bills of Quantities shall cover the full inclusive cost of the complete work to which it refers, as described in the Conditions of Contract and Specifications and as shown on the Drawings and shall allow for labour, material, transporting, loading, storage, supervision, commissioning, wastage, as well as the builders profit and attendance.

The Tenderer must ensure that he fully completes all columns of the Bill of Quantities including the Final Summary. The fully priced bill of quantities must be submitted with the tender or The Final Summary and the Section Summary pages MUST be returned with the tender document as indicated the PA-03 Notice and Invitation to Tender / PA-04 Notice and Invitation for quotation.

The tenderers are to ensure that they have read and understood the project specifications included in C3: Scope of Work. All the information provided in the Scope of Works form part of the work and must be included in the rates.

"The Contractor shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself before submitting his tender (as far as is practicable) as to:

- (a) the form and nature of the Site and its surroundings, including subsurface conditions,
- (b) the hydrological and climatic conditions,
- (c) the extent and nature of work and materials necessary for the execution and completion of the Works,
- (d) the means of access to the Site and the accommodation he may require

and, in general, shall be deemed to have obtained all information (as far as is practicable) as to risks, contingencies and all other circumstances which may influence or affect his Tender"

C2.1.2 VALUE ADDED TAX

The contract sum must include for Value Added Tax (VAT). All rates, provisional sums, etc. in the bills of quantities / lump sum document shall be in Rands and cents and shall include all levies and taxes (other than VAT). VAT will be added in the summary of the Bill of Quantities. The rates must however be net (exclusive of VAT) with VAT calculated and added to the total value thereof in the Final Summary. All rates and amounts quoted in the Bill of Quantities

C2.1.3 CORRECTION OF ENTRIES

Incorrect entries shall not be erased or obliterated with correction fluid but must be crossed out neatly. The correct figures must be entered above or adjacent to the deleted entry, and the alteration must be initialled by the Tenderer.

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C2.1.4 ARITHMETICAL ERRORS

Arithmetical errors found in the Bill of Quantities as a result of faulty multiplication of addition, will be corrected by the Engineer at the tender evaluation stage, as set out in the Tender Data.

C2.1.5 TRADE NAMES

Tenderers attention is drawn to the fact that wherever trade names or references to any catalogue have been made in these Bills of Quantities, it is purely to establish a standard for the required material. If use is made of any other equally approved material in lieu of the prescribed trade name or catalogue, the necessary price adjustments will be made.

C2.1.6 CONTRACT DOCUMENTS

The Tenderers are advised to examine the bills of quantities, drawings and specifications including all other contract documents and make themselves thoroughly acquainted with the nature and requirements of the work, as no claim for extra payment in this regard will be entertained. Should any parts of the drawings not be clearly intelligible to the Tender, he must, before submitting his tender, obtain clarification from the Principal Agent.

C2.1.7 FIXED PRICE CONTRACT

The Bills of Quantities document is not a fixed price contract and the Tenderers are to take note that contract price adjustments (CPAP) are applicable to this contract.

C2.1.8 PAYMENTS

Interim valuations and payments will be prepared on a monthly basis, all in terms of the conditions of contract.

The contractor is to note that no payment will be made for materials stored off site and in the case of materials being stored on site, payment will only be made for such materials on condition that they have not been delivered to the site prematurely, a tax invoice and proof of payment (ownership) is submitted by the Contractor.

C2.1.9 ACCOMMODATION ON SITE

It is imperative to note that no living quarters for construction workers on site will not be permitted for the full duration of the contract unless otherwise stated in the contract data or permission be granted by the Employer.

C2.1.10 SUBMISSION OF LOCAL MATERIAL UTILISATION REPORT (LOCAL CONTENT)

Submission of Local Material Utilisation Reports is *applicable* to this project.

Bidders to note that materials procured for the works should be from South African manufactures and suppliers. Imported materials shall only be considered under exceptional circumstances, based on compelling technical justifications, and subject to the approval by the NDPWI.

The contractor shall be responsible for record keeping, documenting and submission of monthly local material utilization report with supporting documentation to the Employer's representative within 7 working days of the beginning of the successive month, indicating the percentage targets achieved in terms of DTI&C designated industry/sector/sub-sector schedule as per the PA36 and Annexures C attached to the tender document. The final percentage achievement to be reconciled upon completion

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of the project and form part of the final account. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.11 CONTRACT PARTICIPATION GOALS

The contractor shall achieve in the performance of this contract the following Contract Participation Goals (CPGs) as indicated below:

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

Monthly progressive reports to be submitted to the Employer's representative indicating the percentage targets achieved which must be reconciled upon completion of the project and to form part of the final account.

C2.1.11.1 MINIMUM TARGETED LOCAL BUILDING MATERIAL MANUFACTURERS CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Building Material Manufacturers CPG is applicable to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Building Material Manufacturers CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.1. Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.11.2 MINIMUM TARGETED LOCAL BUILDING MATERIAL SUPPLIERS CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Building Material Suppliers CPG is applicable to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Building Material Suppliers CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.2. Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.11.3 MINIMUM TARGETED LOCAL LABOUR CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Labour Skills Development CPG is not applicable to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Labour CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.3. Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.11.4 MINIMUM TARGETED ENTERPRISE DEVELOPMENT CONTRACT PARTICIPATION GOAL

The Minimum Targeted Enterprise Development Contract Participation Goal is applicable to this project.

A provisional amount has been allowed for within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Enterprise Development CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.4. The provisional amount allowed is for the appointment of training coordinator, mentor, training service providers and training of the beneficiary enterprises. The provisional amount will be adjusted in accordance with the actual Contract Amount (Awarded tender amount excluding allowance, provisional amounts and VAT) of the awarded bid.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

The contractor shall complete a separate bill of quantities upon the award of the project and identification of the respective beneficiaries and the appointment of the training coordinator, mentor, training service providers of which the cost will be offset against the provisional amount allowed in the Bills of Quantities.

C2.1.11.5 MINIMUM TARGETED TARGETED CONTRACT SKILLS DEVELOPMENT GOALS (CSDG)

The Minimum Targeted Contract Skills Development CPG is applicable to this project.

A provisional amount has been allowed for within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Skills Development CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.5. The provisional amount allowed is for:

- stipends payable to the beneficiaries
- appointment of training coordinator
- appointment of mentor (where applicable)
- appointment of training service providers
- other additional costs as per Table 3 of the Standard

The provisional amount will be adjusted in accordance with the actual Contract Amount (Awarded tender amount excluding allowance, provisional amounts and VAT) of the awarded bid.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

The contractor shall complete a separate bill of quantities upon the award of the project and identification of the respective beneficiaries. The CPG value to be achieved will be based on the actual contract amount which will be offset against the provisional amount allowed for within the Contract Participation Goal section in the Bill of Quantities.

Payment

The contractor shall upon the appointment of beneficiaries, provide a breakdown of all the associated costs. The contractor shall provide a payment schedule as to how the CPG costs will be claimed against for inclusion in the monthly payment certificates.

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(a) Payment to the contractor to accommodate Part/Full Occupational qualification and Trade qualifications:

Should the contractor select Part/Full Occupational qualification and Trade qualifications learners, then the employer shall make provision for payment to the contractor as indicated in Table 3 of the Standard.

The contract skills participation goal, expressed in Rand, shall not be less than the contract amount multiplied by a percentage (%) factor given in Table 2 in the Standard for the applicable class of construction works. Should the contractor select Part/Full Occupational qualification and Trade qualifications learners, then the employer shall make provision for payment to the contractor as indicated in Table 2 of the Standard.

Table 2: Contracting skills development goals for different classes of engineering and construction works contracts

Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No 48491 Government Gazette, 23 April 2023 (Table 2, Page 7)

Class of construction works as identified in terms of Regulation 25 (3) of the Construction Industry Regulations 2004		Construction skills development goal (CSDG) (%)
Designation	Description	
CE	Civil Engineering	0.25
CE and GB	Civil engineering and General Building	0.375
EE	Electrical Engineering works (buildings)	0.25
EP	Electrical Engineering works (infrastructure)	0.25
GB	General Building	0.5
ME	Mechanical Engineering works	0.25
SB	Specialist	0.25

No provision for an additional payment item for the payment of the supervisor and/or mentors for the provision of training as provided for in the Contract Participation Goal section in the Bill of Quantities for the training of part/full time occupational learners and/or trade qualification learners. The associated cost is deemed to be included in general supervision on site.

The contractor shall complete a separate bill of quantities upon award, indicating the type and number of beneficiaries as well as the associated Notional Cost of Training to be provided, on which payment will be based.

(b) Payment to the contractor to accommodate Work Integrated Learners and Candidates for professional registration:

Should the contractor select Work Integrated Learners and/or Candidates for professional registration, then the employer shall make provision for payment to the contractor as indicated in Table 3 of the Standard.

Provisional amounts have been included in the Contract Participation Goal section in the Bill of Quantities for the training of Work Integrated Learners and Candidates for professional registration. The contractor shall price his Profit and Attendance (all inclusive of associated costs to the contractor for implementation and reporting), based on the provisional amount in the Contract Participation Goal section in the Bill of Quantities.

The contractor shall complete a separate bill of quantities upon award, indicating the type and number of beneficiaries as well as the associated Notional Cost of Training to be provided, on which payment will be based.

The CPG value to be achieved will be based on the contract amount as defined by the Standard, which will be offset against the provisional amount allowed for within the Contract Participation Goal section in the Bill of Quantities.

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The contractor shall apportion the cost of accommodating work integrated learners (P1 and P2 learners) and candidates for professional registration by using Table 3 in the Standard and this cost will be used to determine the Rand value and will be used in determining the contract participation goal in the Bills of Quantities.

Table 3: The notional cost of providing training opportunities per quarter

Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No 48491 Government Gazette, 23 April 2023 (table 3, Page 9)

Type of Training Opportunity	Provision for stipends (Unemployed learners only)	Provisions for mentorship	Provisions for additional costs*	Total costs	
				Unemployed learners	Employed learners
Method 1					
Occupational qualification	R7 000	R0	R9 000	R16 000	R9 000
Method 2					
TVET College graduates	R14 000	R0	R9 000	R23 000	N/A
Apprenticeship	R14 000	R0	R12 000	R26 000	R12 000
Method 3					
P1 and P2 learners	R24 000	R20 000	R4 500	R48 500	N/A
Method 4					
Candidates with a 3 year diploma	R37 000	R20 000	R4 500	R61 500	R20 000
Candidates with 4 year qualification	R47 000	R20 000	R4 500	R71 500	R20 000

Note: The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI. Should the rates increase after bid award or during construction the rates will be adjusted as a provisional item.

Example: Training Target Calculation for a R65,7m GB contract

Contract amount R65 700 000
Contract duration 12 Months
CSDG 0,50%
Minimum CSDG target $0,50\% \times R65\,700\,000 = R328\,500$ (Minimum requirement)

Skills Types	Number of learners	Notional Cost / Learner / Quarter	Notional cost/learner/year	Total Notional Cost over 12 months Contract
Method 2: Workplace learning opportunities, with unemployed TVET graduates	1	R23 000	R92 000	R92 000
Method 3: Candidacy for an unemployed learner with a 3-year qualification	1	R61 500	R246 000	R246 000
Total	2			R338 000

C2.1.11.6 NATIONAL YOUTH SERVICE TRAINING AND DEVELOPMENT PROGRAMME

The National Youth Service Training and Development Programme is applicable to this project.

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The programme shall be implemented in terms of the Implementation of the National Youth Service Programme under the Expanded Public Works (EPWP) and shall be priced in the CPG section of the Bills of Quantities.

Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the National Youth Service Training and Development Programme CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.6.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.11.7 LABOUR-INTENSIVE WORKS

Labour Intensive Works is applicable to this project.

Where labour intensive work is specified in the Bill of Quantities and indicated by "LI" the contractor must price for and include in rates. Contractors are expected to use their initiative to identify additional activities that can be done labour-intensively to comply with the set minimum labour intensity target. Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the monthly reporting illustrating the value of the works executed under Labour Intensive Works CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.7 and any other supplementary specifications.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.2 Submission of Accrual Reports

The Contractor shall submit accrual reports to the client representative at the end of March and September each year for the duration of the Service Contract period from the date of appointment up to and including project closeout. This is to ensure that PMTE complies with the accounting framework GRAP, which requires that PMTE disclose all its accruals as at the end of each reporting date. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

C.2.2 Bills of Quantities

PROVISIONAL BILLS OF QUANTITIES

FOR

**IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS
AND REFURBISHMENT OF THE ENTIRE FACILITY**

FOR

Department of Public Works

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SECTION NO 1
PRELIMINARIES

SECTION 1**PRELIMINARIES****MEANING OF TERMS "TENDER / TENDERER"**

Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder"

BUILDING AGREEMENT AND PRELIMINARIES

The **JBCC** Principal Building Agreement (Edition 6.2 - May 2018) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described to be read in conjunction with the **Contract Data** issued with the tender.

The **JBCC** General Preliminaries (May 2018) published by the Joint Building Contracts Committee for use with the **JBCC** Principal Building Agreement (Edition 6.2 - May 2018) shall be deemed to be incorporated in these **bills of quantities** / lump sum document, amended as hereinafter described

The **contractor** is deemed to have referred to the abovementioned documents for the full intent and meaning of each clause

The clauses in the abovementioned documents are hereinafter referred to by clause number and heading only

Where any item is not relevant to this **agreement** such item is marked N/A signifying "not applicable"

Where standard clauses or alternatives are not entirely applicable to this **agreement** such amendments, modifications, corrections or supplements as will apply are given under each relevant clause heading and such amendments, modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the abovementioned documents

TENDERER'S SELECTIONS

Before submission of his tender the **contractor** is to complete the tenderer's selections in the **contract data for organs of state and other public sector bodies**

STRUCTURE OF THIS PRELIMINARIES BILL

Section A : A recital of the headings of the individual clauses in the aforementioned **JBCC** Principal Building Agreement

Section B : A recital of the headings of the individual clauses in the aforementioned **JBCC** General Preliminaries

Section C : Any special clauses to meet the particular circumstances of the project

PRICING OF PRELIMINARIES

Should the **contractor** select Option A in the **contract data for organs of state and other public sector bodies** for the adjustment of **preliminaries**, the amounts entered against the relevant items in these **preliminaries** are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)

PRICING OF BILLS OF QUANTITIES

The **contractor** is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this **agreement**.

Items left unpriced will be deemed to be covered in prices against other items throughout these **bills of quantities** and no claim for any extras arising out of the **contractor's** omission to price any item will be entertained

Prices for all **construction equipment**, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary

VALUE ADDED TAX

Provision is made in the summary page of these **bills of quantities** / lump sum document for the inclusion of Value Added Tax (VAT)

SECTION A: PRINCIPAL BUILDING AGREEMENT

INTERPRETATION

A1.0 DEFINITIONS AND INTERPRETATION

Clause 1.0

The following definitions replace corresponding definitions or are added to the definitions in the JBCC PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018), whatever the case may be

ADVERSE WEATHER CONDITIONS: Adverse weather and inclement weather has the same meaning and used interchangeably and means any weather conditions i.e.: Rain, wind, snow, frost, temperature (cold or heat) that are not in the norm for the area where the construction takes place and during which no work is possible on site

AGREEMENT: The completed Form of Offer and Acceptance, the completed JBCC® Principal Building Agreement and contract data for organs of state and other public sector bodies, the contract drawings, the priced document and any other documents reduced to writing and signed by the authorised representative or representatives of the parties

CONSTRUCTION PERIOD: The period commencing on the date of possession of the **site** by the **contractor** and ending on the date of **practical completion**

CONTRACT PERIOD: The period commencing on the date of the letter of acceptance and ending on the date of final completion

COST FLUCTUATION shall mean contract price adjustment provision (CPAP) for the adjustment of fluctuation in the cost of labour, plant, material and goods as stated in the schedule

DEFAULT INTEREST: No Clause

GUARANTEE FOR CONSTRUCTION: A security in terms of the DPWI's Guarantee for Construction form/s, obtained by the contractor from an institution approved by the employer [CD]

INTEREST: The interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999) as amended, calculated as simple interest, in respect of debts owing to the State, and will be the rate as published by the Minister of Justice and Correctional Services from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No 55 of 1975) as amended, calculated as simple interest, in respect of debts owing by the State

LETTER OF ACCEPTANCE: The letter of formal acceptance of the Contractor's or Service Provider's Tender / Bid, issued and signed by the Employer

PAYMENT CERTIFICATE: A certificate issued at regular agreed intervals [CD] by the principal agent to the parties certifying the amount due and payable in terms of Clause 25.3

PRINCIPAL AGENT: The person or entity appointed by the **employer** and named in the **contract data for organs of state and other public sector bodies**. In the event of a **principal agent** not being appointed, then all the duties and obligations of a **principal agent** as detailed in the **agreement** shall be fulfilled by the employer's representative as named in the **contract data for organs of state and other public sector bodies**

TARGETED SUBCONTRACTORS: Subcontractors that must be appointed to a total of 30% or more of the contract sum, by the contractor, projects with a contract sum of the amount determined by the Minister in terms of the latest Preferential Procurement regulations, as may be amended from time to time.

F:..... V:..... T:.....

Item

A2.0 LAW, REGULATIONS AND NOTICES

Clause 2.0

F:..... V:..... T:.....

Item

A3.0 OFFER AND ACCEPTANCE

Replace Clause 3.3 with the following:

This **agreement** shall come into force on the date of **letter of acceptance** and continue to be of force and effect until the end of the **latent defects** liability period [22.0] notwithstanding termination [29.0] or the certification of **final completion** [21.0] and final payment [25.0]

F:..... V:..... T:.....

Item

A4.0 CESSION AND ASSIGNMENT

Clause 4.0

Ref Clause 6.7 [CD] - Clause 4.2

Replace Clause 4.3 with the following:

Where a **contractor** cedes any right or any monies due to or to become due under this **agreement** as security in favour of a financial institution, the prior written consent of the **employer**, which consent shall not be unreasonably withheld, must be obtained

F:..... V:..... T:.....

Item

SECTION 1: PRELIMINARIES (SECTION A)

Each Item Carried to Collection

A5.0 **DOCUMENTS**

Clause 5.0

Replace last sentence of Clause 5.2 with the following:

The original signed **agreement** shall be held by the **Employer**

Replace Clause 5.4 with the following:

The Bills of Quantities shall not be used as a specification of material and goods or methods unless so instructed by the Principal Agent. The contractor may not use the Bills of Quantities for purpose of ordering material. All dimensions and quantities must be determined on site before ordering. In the event of discrepancy between the drawings and Bills of Quantity, the drawings shall take preference

Replace Clause 5.5 with the following:

The parties may publish or disclose on any platform only the contract scope and contract amount

F:..... V:..... T:.....

Item

A6.0 **EMPLOYER'S AGENTS**

Clause 6.0

Replace Clause 6.5 with the following:

Where the principal agent and/or an agent fails to act or is unable to act or ceases to be the principal agent or an agent in terms of this agreement, the employer shall appoint another principal agent and/or an agent

Add the following as Clause 6.7:

In terms of the clauses listed hereunder, the employer has retained its authority and has not given a mandate to the principal agent, notwithstanding other provisions in the contract. The employer shall sign all documents in relation to clauses 4.2, 14.1.4, 14.4.1, 14.6, 15.1.4, 15.4.1, 23.1, 23.2, 23.3, 23.7, 23.8, 26.1, 26.7, 26.12

F:..... V:..... T:.....

Item

A7.0 **DESIGN RESPONSIBILITY**

Clause 7.0

Replace first sentence of Clause 7.2 with the following:

Any design responsibility undertaken by a subcontractor shall not devolve on the contractor except for items that require specific component design and or compatibility design and or shop drawings and or the assembly thereof

F:..... V:..... T:.....

Item

INSURANCES AND SECURITIES

A8.0 **WORKS RISK**

Clause 8.0

Replace Clause 8.4 with the following:

The **contractor** shall bear the full risk of damage to and/or destruction of the **works** by whatever cause during construction of the **works** and hereby indemnifies and holds harmless the **employer** against any such damage. The **contractor** shall take such precautions and security measures and other steps for the protection and security of the **works** as the **contractor** may deem necessary

F:..... V:..... T:.....

Item

A9.0

INDEMNITIES

Clause 9.0

Add the following to the end of the first sentence of Clause 9.2.7:“... due to no fault of the **contractor**

9.2.9 No Clause

9.2.10 No Clause

Add the following as clause 9.3:

The employer's rights to claim damages for the contractor's omissions and actions will not be affected.

F:..... V:..... T:.....

Item

A10.0

INSURANCES

Clause 10.0

Replace Clause 10.1 with the following:

The party responsible shall effect and keep the respective insurances [CD] in force, in favour of the employer as beneficiary , from the date of possession of the site until the issue of the certificate of practical completion and with an extension to cover the contractors obligations after the date of practical completion [8.2.2]

Add the following as Clause 10.1.5.1:**Hi Risk Insurance**

In the event of the project being executed in a geological area classified as a “High Risk Area”, that is an area which is subject to highly unstable sub-surface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply

Add the following as Clause 10.1.5.1.1 Damage to the works

The contractor shall, from the date of possession of the **site** until the date of the **certificate of practical completion**, bear the full risk of and hereby indemnifies and holds harmless the **employer** against any damage to and/or destruction of the **works** consequent upon a catastrophic ground movement as mentioned above. The **contractor** shall take such precautions and security measures and other steps for the protection of the **works** as he may deem necessary

When so instructed to do so by the **principal agent**, the **contractor** shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, restore, replace and/or repair the **works**, at the **contractor's** own costs

10.1.5.1.2 Injury to persons or loss of or damage to property

The **contractor** shall be liable for and hereby indemnifies and holds harmless the **employer** against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above

The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable property, or personal property, or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract

10.1.5.1.3 Replace Clause with the following:

It is the responsibility of the **contractor** to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.1.5.1.1 and 10.1.5.1.2. Without limiting the **contractor's** obligations in terms of the contract, the **contractor** shall, within twenty-one (21) **calendar days of the date of letter of acceptance**, but before commencement of the **works**, submit to the **employer** proof of such insurance policy.

10.1.5.1.4 Replace Clause with the following:

The **employer** shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the **contractor's** default of his obligations as set out in 10.1.5.1.1; 10.1.5.1.2 and 10.1.5.1.3. Such losses or damages may be recovered from the **contractor** or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the **employer** and the **contractor** and for this purpose all these contracts shall be considered one indivisible whole

10.2 Replace Clause with the following:

Where practical completion in sections is required [20.0], or where the works is for alterations and additions, the contractor shall effect and keep in force contract works insurance [10.1.1], supplementary insurance [10.1.2], public liability insurance [10.1.3] and where applicable, removal of lateral support insurance [10.1.4] and other insurances [10.1.5] in favour of the employer as beneficiary

10.6 No Clause

Add the following as Clause 10.11

In the event that an insurer dispute the amount of the claim to be paid to the employer, the contractor shall be liable to the employer for the difference between the claim (as determined by the employers QS appointed on the project) made by the employer and the amount that the insurer is willing to pay

F:..... V:..... T:.....

Item

A11.0

SECURITIES**Add the following as to the relevant related Clauses as follows:****Add the following to Clause 11.1:**

In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT).

In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of C 1.0 Securities, as stated in the schedule. Such security shall be provided to the employer within fifteen (15) working days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within fifteen (15) working days from commencement date, the security in terms of C 1.0 Option C shall be deemed to have been selected.

The payment reduction of the value certified in a payment certificate shall be mutatis mutandis in terms of 25.12.1 - 25.12.5

11.1.1 No Clause

11.1.2 No Clause

11.2.2 No Clause

11.3 No Clause

SECTION 1: PRELIMINARIES (SECTION A)**Each Item Carried to Collection**

Replace Clause 11.4.1 with the following:

Hand over the site to the contractor and withhold an amount equal to ten per cent (10%) of each interim payment certificate until practical completion is achieved. The value certified shall be subject to the adjustments in terms of 25.12.6 to 25.12.10.

11.5 No Clause

11.6 No Clause

11.7 No Clause

11.8 No Clause

11.9 No Clause

11.10 No Clause

Add the following as Clause 11.11:

Where the security as a cash deposit of ten per cent (10%) of the contract sum (excluding VAT) has been selected:

Add the following as Clause 11.11.1:

The contractor shall furnish the employer with a cash deposit equal in value to ten percent (10%) of the contract sum (excluding VAT) within fifteen (15) working days from commencement date. Failure to furnish the employer with a cash deposit within fifteen (15) working days Clause 11.4 will apply mutatis mutandis.

Add the following as Clause 11.11.2:

The employer shall be entitled to recover expense and loss from the cash deposit in terms of Clause 27.0 provided that the employer notifies the Contractor in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor.

Add the following as Clause 11.11.3:

Within fifteen (15) working days of the date of practical completion of the works the employer shall reduce the cash deposit to an amount equal to three per cent (3%) of the contract value (excluding VAT) and refund the balance to the contractor

Add the following as Clause 11.11.4:

Within fifteen (15) working days of the date of final completion of the works the employer shall reduce the cash deposit to an amount equal to one per cent (1%) of the contract value (excluding VAT) and refund the balance to the contractor.

Add the following as Clause 11.11.5:

On the date of payment of the amount in the final payment certificate, the employer shall refund the remainder of the cash deposit to the contractor.

Add the following as Clause 11.11.6:

The parties expressly agree that neither the employer nor the contractor shall be entitled to cede the rights to the deposit to any third party.

Add the following as Clause 11.12:

Where security as a variable construction guarantee of ten percent (10%) of the contract sum (excluding VAT) has been selected:

Add the following as Clause 11.12.1:

The contractor shall furnish the employer with an acceptable variable construction guarantee equal in value to ten per cent (10%) of the contract sum (excluding VAT) within fifteen (15) working days after issuance of the letter of acceptance. Failure to submit an acceptable variable construction guarantee within fifteen (15) working days Clause 11.4 will apply mutatis mutandis.

Add the following as Clause 11.12.2:

The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form included in the invitation to tender.

Add the following as Clause 11.12.3:

The employer shall return the variable construction guarantee to the contractor within fourteen (14) calendar days of it expiring.

Add the following as Clause 11.12.4:

Where the employer has a right of recovery against the contractor in terms of 27.0, the employer shall issue a written demand in terms of the variable construction guarantee.

Add the following as Clause 11.13:

Where security as a fixed construction guarantee of five per cent (5%) of the contract sum (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the payment certificate (excluding VAT) has been selected:

Add the following as Clause 11.13.1:

The contractor shall furnish a fixed construction guarantee to the employer equal in value to five per cent (5%) of the contract sum (excluding VAT).

Add the following as Clause 11.13.2:

The fixed construction guarantee shall come into force on the date of issue and shall expire on the date of the last certificate of practical completion.

Add the following as Clause 11.13.3:

The employer shall return the fixed construction guarantee to the contractor within fourteen (14) calendar days of it expiring.

Add the following as Clause 11.13.4:

The payment reduction of the value certified in a payment certificate shall be mutatis mutandis in terms of 25.12.1 - 25.12.5.

Add the following as Clause 11.13.5:

Where the employer has a right of recovery against the contractor in terms of 27.0, the employer shall be entitled to issue a written demand in terms of the fixed construction guarantee or may recover from the payment reduction or from both.

Add the following as Clause 11.14.1:

Where security as a cash deposit of five per cent (5%) of the contract sum (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) has been selected:

Add the following as Clause 11.14.2:

The contractor shall furnish the employer with a cash deposit equal in value to five per cent (5%) of the contract sum (excluding VAT) within fifteen (15) working days from commencement date. Failure to submit a cash deposit within fifteen (15) working days Clause 11.4 will apply mutatis mutandis.

Add the following as Clause 11.14.3:

Within fifteen (15) working days of the date of practical completion of the works the employer shall refund the cash deposit in total to the contractor.

Add the following as Clause 11.14.4:

The payment reduction of the value certified in a payment certificate shall be mutatis mutandis in terms of 25.12.1 - 25.12.5.

Add the following as Clause 11.14.5:

Where the employer has a right of recovery against the contractor in terms of 27, the employer may recover from the payment reduction or cash deposit or from both.

Add the following as Clause 11.15:

Where security as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT) has been selected.

Add the following as Clause 11.15.1:

The payment reduction of the value certified in a payment certificate shall be mutatis mutandis in terms of 25.12.6 to 25.12.10.

Add the following as Clause 11.15.2:

The employer shall be entitled to recover expense and loss from the cash deposit in terms of 27.0 provided that the employer notifies the Contractor in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor.

Add the following as Clause 11.16:

Payments made by the guarantor to the employer in terms of the fixed or variable construction guarantee shall not prejudice the rights of the employer or contractor in terms of this agreement.

Add the following as Clause 11.17:

Should the contractor fail to furnish the security in terms of 11.2 the employer, in his sole discretion, and without notification to the contractor, is entitled to change the contractor's selected form of security to that of a ten per cent (10%) payment reduction of the value certified in the payment certificate (excluding VAT).

F:..... V:..... T:.....

Item

EXECUTION

A12.0

OBLIGATIONS OF THE PARTIES

Clause 12.0

12.1.1 No Clause

Replace Clause 12.1.5 with the following:

Give possession of the site to the contractor within ten (10) working days after approval of the Health and Safety Plan or the issue of a construction permit by the Department of Labour, if applicable, after the contractor complied with the terms of 12.2.22

12.1.6 No Clause

12.1.8 No Clause

Replace Clause 12.2.2 with the following:

The priced Bills must be submitted to the Employer within fourteen (14) calendar days from date of request. Where the priced document contains errors or discrepancies and/or prices considered by the employer or principal agent to be imbalanced or unreasonable the employer or principal agent and the contractor shall adjust such prices without any change to the contract sum

Replace Clause 12.2.5 with the following :

Effect and keep in force insurances in favour of the employer as beneficiary where the contractor is responsible for providing insurances [10.0] [CD]

Replace Clause 12.2.13 with the following:

Designate a competent person full time on site to continuously administer and control the works on site and to receive and implement notices and contract instructions on behalf of the contractor

Add the following as Clause 12.2.22:**SECTION 1: PRELIMINARIES (SECTION A)****Each Item Carried to Collection**

Within fourteen (14) working days of the date of the letter of acceptance submit to the principal agent an acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)

Add the following as Clause 12.2.23:

The contractor shall within reasonable time inform the agents regarding inspection of the works before covering / closing [B 12.0]

Offices

The **contractor** shall provide, maintain and remove on completion of the **works** an office for the exclusive use of the **principal agent**, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times [12.2.18]

F:..... V:..... T:.....

Item

Main notice board

The **contractor** shall provide, erect where directed, maintain and remove on completion of the **works** a notice board size 3 x 3m as type Drawing GEN 063, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering [12.2.18]

F:..... V:..... T:.....

Item

A13.0 SETTING OUT

Clause 13.0

F:..... V:..... T:.....

Item

A14.0 NOMINATED SUBCONTRACTORS

Clause 14.0

Ref Clause 6.7 [CD] - Clause 14.1.4

14.1.5 No Clause

Replace "principal agent " with "employer" [6.7 [CD]] in Clause 14.4.1

Ref Clause 6.7 [CD] - Clause 14.6

F:..... V:..... T:.....

Item

A15.0 SELECTED SUBCONTRACTORS

Clause 15.0

Ref Clause 6.7 [CD] - Clause 15.1.4 & Clause 15.5

SECTION 1: PRELIMINARIES (SECTION A)

Each Item Carried to Collection

	15.1.5 No Clause			
	<p>Replace Clause 15.1.2 with the following: The principal agent shall call for tenders from a list of tenderers agreed between the contractor and the employer</p> <p>Replace “principal agent ” with “employer” [6.7 [CD]] in Clause 15.4.1</p> <p>F:..... V:..... T:.....</p>	Item		
A16.0	<p>DIRECT CONTRACTORS</p> <p>Clause 16.0</p> <p>F:..... V:..... T:.....</p>	Item		
A17.0	<p>CONTRACT INSTRUCTIONS</p> <p>Clause 17.0</p> <p>Replace Clause 17.4 with the following: The contractor shall comply with and duly execute all contract instructions except any contract instruction for additional work issued after the date of practical completion other than making good physical loss and repairing damage to the works in terms of 8.0 and 21</p> <p>Add the following clause as Clause 17.6: Minutes of meetings shall not constitute a site instruction unless reduced to a written contract instruction issued by the principal agent in terms of this contract / agreement.</p> <p>F:..... V:..... T:.....</p>	Item		
	COMPLETION			
A18.0	<p>INTERIM COMPLETION</p> <p>Clause 18.0</p> <p>F:..... V:..... T:.....</p>	N/A	-	-
A19.0	<p>PRACTICAL COMPLETION</p> <p>Clause 19.0</p> <p>Replace Clause 19.5 with the following: On issue of the only or last certificate of practical completion the employer shall be entitled to possession of the works and the site. On issue of the certificate of practical completion for a section, the employer shall be entitled to possession of such section</p> <p>Add the following as Clause 19.8: WORKS COMPLETION</p> <p>(1) Within seven (7) calendar days of the date of practical completion the principal agent shall issue to the contractor a works completion list defining the outstanding work and defects apparent at the date of practical completion to be completed or rectified to achieve works completion.</p> <p>(2) Where, in the opinion of the contractor, the works completion list has been completed the contractor shall notify the principal agent who shall inspect within seven (7) calendar days of receipt of such a notice. Where, in the opinion of the principal agent, the Works Completion list:</p> <p>(2)(a) Has been satisfactorily completed, the principal agent shall forthwith issue a</p>			

SECTION 1: PRELIMINARIES (SECTION A)**Each Item Carried to Collection**

certificate of Works Completion to the contractor with a copy to the employer

(2)(b) Has not been satisfactorily completed, the principal agent shall forthwith identify the works completion list items that are not yet complete and inform the contractor thereof. The contractor shall repeat the procedure in terms of 19.8(2)

(3) Should the principal agent not issue a works completion list, in terms of 19.8 (1) or 19.8 (2)(b), within seven (7) calendar days from the end of the inspection period, the contractor shall notify the employer and principal agent. Should the principal agent not issue such Works Completion list within seven (7) calendar days of receipt of such notice, the employer may within seven (7) calendar days issue to the contractor a Works Completion list. Should the employer:

(3)(a) Not issue such works completion list within seven (7) calendar days, then the certificate of Works Completion shall be deemed to have been issued on the date of expiry of the initial notice period and works completion shall be deemed to have been achieved on such date

(3b) Issue a works completion list and the work on Works Completion list not have been completed or where further defects have become apparent, the employer shall forthwith identify such items on the updated works completion list and notify the contractor. The contractor shall repeat the procedure in terms of 19.8(2)(b) until such items have been completed to the satisfaction of the employer

(4) Should the works completion list not be completed to the satisfaction of the employer within a period of twenty one (21) working days of the issue first works completion list the contractor shall be liable to a daily penalty as described in B12.0

(5) The defects liability period in terms of 21.1 shall commence with the issue or deemed issue of the certificate of Works Completion in terms of 19.8(2)(a) or 19.8(3).

F:..... V:..... T:.....

Item

A20.0

COMPLETION IN SECTIONS

Clause 20.0

Add the following as Clause 20.2.1.A

A certificate of Works Completion [19.8]

F:..... V:..... T:.....

Item

A21.0

DEFECTS LIABILITY PERIOD AND FINAL COMPLETION

Clause 21.0

Replace Clause 21.1 with the following:

The defects liability period for the works shall commence on the calendar day following the date of works completion and end at midnight (00:00) ninety (90) calendar days from the date of works completion [CD] or when work on the list for completion has been satisfactorily attended to [21.6], whichever is the later (if we use works completion)

Replace Clause 21.6 with the following:

On the expiry of the ninety (90) calendar days defects liability period [21.1] for items not indicated as items with an extended liability as indicated in B14 and on receipt of the contractor's notice to the principal agent

And/or

On the expiry of the defects liability period as indicated in B14, for items indicated in B14 and on receipt of the contractor's notice to the principal agent, the principal agent shall:

- (1) inspect the works And within ten (10) working days either issue a list for final completion detailing all outstanding work or defects that must be attended to, or rectified to achieve final completion or
- (2) issue the certificate of final completion to the contractor with a copy to the employer for that part of the works where defects liability period has expired

21.6.1 Omit Clause

21.6.2 Omit Clause

Add the following as Clause 21.13:

The ninety (90) calendar days defects liability period for the works [21.1] is replaced with an extended defects liability period of three hundred and sixty-five (365) calendar days in respect of the listed applicable elements in B14

Add the following as Clause 21.14:

Penalties will be applied if the items on the completion list have not been attended to within a period of ninety (90) calendar days [21.1]. If additional defect items have being added to the list during this period, then the Principal Agent and Contractor will agree on a revised completion date. Failing in achieving the revised date will result in penalties being applied.[B12.0]

F:..... V:..... T:.....

Item

A22.0

LATENT DEFECTS LIABILITY PERIOD

Clause 22.0

22.3.2 No Clause

F:..... V:..... T:.....

Item

A23.0

REVISION OF THE DATE FOR PRACTICAL COMPLETION

Clause 23.0

Ref Clause 6.7 [CD] – Clause 23.1

Ref Clause 6.7 [CD] – Clause 23.2

23.2.13 No Clause

Replace Clause 23.3 with the following:

Further circumstances that delays practical completion due to any other cause beyond the contractor's reasonable control that could not have reasonably been anticipated and provided for which the contractor may be entitled to a revision of the date for practical completion, with or without an adjustment of the contract value as determined by the Employer [6.7 CD]

Ref Clause 6.7 [CD] - Clause 23.7

Ref Clause 6.7 [CD] - Clause 23.8

F:..... V:..... T:.....

Item

A24.0

PENALTY FOR LATE OR NON-COMPLETION

Clause 24.0

Replace Clause 24.1 with the following:

Where the contractor fails to bring the works, or a section thereof, to practical-, works-, or final-completion by the applicable completion date [CD], or the revised applicable completion date, the contractor shall be liable to the employer for the penalty [CD]

Replace Clause 24.2 with the following:

Where the employer elects to levy such penalty the employer, or the principal agent on instruction from the employer, shall give notice thereof to the contractor. The principal agent shall determine the penalty due from the later of the date for practical- works-, or final-completion [CD], or the revised date for practical- works-, or final- completion, up to and including the earlier of:

Replace Clause 24.2.1 with the following:

The actual or deemed date of practical- works-, or final- completion, of the works, or a section thereof [23.7.1]

F:..... V:..... T:.....

Item

PAYMENT

A25.0

PAYMENT

Clause 25.0

Replace Clause 25.2 with the following:

The principal agent shall issue at regular agreed intervals [CD] payment certificates, to the contractor with a copy to the employer, up to and including practical completion. Interim Payment certificates may be issued to the contractor between practical completion and the final payment certificate. A payment certificate may be for a nil or negative amount

Add the following to Clause 25.3:

25.3.12 Monthly Local content report,

25.3.13 EPWP / NYS payment register, labour reports and certified ID document of EPWP/ NYS beneficiaries, Contract between Contractor and EPWP/ NYS beneficiaries, attendance register. (if applicable)

25.3.14 Tax Invoice

25.3.15 Labour intensive report

25.3.16 Contract participation goal reports

25.5 No Clause

Replace Clause 25.6 with the following:

Materials and goods will only be certified and paid for upon providing proof of full payment to the supplier and proof of transfer of ownership from the supplier to the contractor by the contractor. Once paid, material and goods shall become the property of the employer and shall not be removed from site without the written authority of the Employer.

25.7.5 No clause.

Replace Clause 25.10 with the following:

The employer shall pay the contractor the amount stipulated in an issued payment certificate, correct in all material respects, within thirty (30) calendar days from the date of receiving the payment certificate, invoice and all other substantiating documentation for items certified in the payment certificate

Replace Clauses 25.12 to 25.12.3 with the following:

The value certified shall be subject to the following percentage adjustments :

(Clauses 25.12.1 to 25.12.5 shall be applicable to a contract sum up to R1 million. In the event of a contract sum more than R1 million for Options D & E (C 1.0 Securities [11.0]) Clauses 25.12.1 to 25.12.5 shall be applicable)

25.12.1 Where a security is selected in terms of C 1.0 Securities [11.0], the value of the works in terms of 25.1 and of the materials and goods in terms of 25.4 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

25.12.2 Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of practical completion

25.12.3 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion

25.12.4 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 26

25.12.5 One hundred per cent (100%) of such value in the final payment certificate in terms of 26 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate.

(Clauses 25.12.6 to 25.12.10 shall be applicable to a contract sum more than R1 million for Option C (C 1.0 Securities [11.0])

25.12.6 Where security is a payment reduction in term of C 1.0 Option C, value of the works in terms of 25.1 and materials and goods in terms of 25.4 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

25.12.7 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion

25.12.8 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion

25.12.9 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 26

25.12.10 One hundred per cent (100%) of such value in the final payment certificate in terms of 26 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate

F:..... V:..... T:.....

Item

A26.0

ADJUSTMENT OF THE CONTRACT VALUE AND FINAL ACCOUNT

Clause 26.0

Ref Clause 6.7 [CD] – Clause 26.1

Omit Clause 26.4.3

Ref Clause 6.7 [CD] – Clause 26.7

Replace Clause 26.10 with the following:

The principal agent shall prepare the final account in consultation with the employer and issue the final account, to the contractor within sixty (60) working days of the date of practical completion

Ref Clause 6.7 [CD] – Clause 26.12

	F:..... V:..... T:.....	Item
A27.0	<p>RECOVERY OF EXPENSE AND/OR LOSS</p> <p>Clause 27.0</p> <p>Replace Clause 27.1.2 with the following: Interest due to late payment only</p> <p>Replace Clause 27.1.4 with the following: Interest due to late payment only</p> <p>27.1.5 No Clause</p> <p>Replace Clause 27.5 with the following: Where the employer decides to recover an amount due in terms of 27.2 from a construction guarantee, cash deposit or retention money held as security, the employer shall issue a written demand to the contractor before recovering the amount. Should such amount not be paid to the employer within fourteen (14) calendar days of the date-of notice by the employer, the employer may recover such an amount from the security</p> <p>Add the following as Clause 27.6: Where a provisional sequestration or provisional liquidation order has been granted or where an order has been granted which commences sequestration, liquidation, bankruptcy, receivership, winding-up or any similar effect, against the contractor or this agreement is cancelled in terms of 29, the employer may issue a demand to the guarantor in terms of the construction guarantee or advance payment guarantee held as security</p> <p>F:..... V:..... T:.....</p> <p>SUSPENSION AND TERMINATION</p>	Item
A28.0	<p>SUSPENSION BY THE CONTRACTOR</p> <p>Clause 28.0</p> <p>28 No Clause 28.1 No Clause 28.1.1 No Clause 28.1.2 No Clause 28.1.3 No Clause 28.1.4 No Clause 28.1.5 No Clause 28.2 No Clause 28.3 No Clause 28.4 No Clause</p> <p>F:..... V:..... T:.....</p>	Item
A29.0	<p>TERMINATION</p> <p>Clause 29.0</p> <p>Add the following as Clause 29.1.4: The contractor's estate has been sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa</p>	

Add the following as Clause 29.1.5:

The contractor has engaged in corrupt or fraudulent practices in competing for or in executing the contract

Add the following as Clause 29.1.6:

Honour his obligations in terms of Clauses 10.1.5.1.3, 11.4.1 and 12.2. sub Clauses 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 22.

Replace Clause 29.7 with the following:

The employer, on notice to the contractor, may recover damages from the contractor from the date of termination including, but not limited to, additional costs incurred in the completion, consultant cost, rental of alternative accommodation, invitation of completion tenders, salaries of officials and safeguarding the site, of the remaining work [25.3.7; 27.1.3]

Replace Clause 29.9 with the following:

The employer has the right of recovery against the contractor, where applicable, [CD] from:

The guarantee for construction (variable) until the final payment has been made;

or

The guarantee for construction (fixed) until the date of practical completion;

or

The payment reduction until the final payment is made;

or

The cash deposit made as security until the final payment is made

29.14.1 No Clause

29.14.3 No Clause

29.14.4 No Clause

29.14.5 No Clause

29.14.6 No Clause

29.14.7 No Clause

29.15 No Clause

29.16 No Clause

29.17.3 No Clause

29.17.6 No Clause

29.21.5 No Clause

29.22 No Clause

29.23 No Clause

29.25.3 No Clause

29.25.4 No Clause

SECTION 1: PRELIMINARIES (SECTION A)**Each Item Carried to Collection**

29.27 No Clause

F:..... V:..... T:.....

Item

DISPUTE RESOLUTION

A30.0

DISPUTE RESOLUTION

Clause 30.0

Replace Clause 30.2 with the following:

Where such disagreement is not resolved within ten (10) working days of receipt of such notice it shall be deemed to be a dispute and shall be submitted to Mediation as a first method of dispute resolution failing which the parties will resort to Litigation

30.3 to 30.7.7 No Clauses

Replace Clause 30.8 with the following:

The parties may, by agreement and at any time before Litigation, refer a dispute to mediation, in which event:

30.8.1 No Clause

Replace Clause 30.8.2 with the following:

The appointment of a mediator, the procedure, and the status of the outcome shall be agreed between the parties

Replace Clause 30.8.3 with the following:

Regardless of the outcome of a mediation the parties shall bear their own costs concerning the Mediation and equally share the costs of the mediator and related expenses

Replace Clause 30.9 with the following:

Institution of Litigation shall be commenced and process served within three (3) year from the date of existence of the dispute, failing which the dispute shall lapse

30.10 No Clause

30.12 No Clause

F:..... V:..... T:.....

Item

	SECTION B: GENERAL PRELIMINARIES		
B1.0	DEFINITIONS AND INTERPRETATION		
B1.1	Definitions		
	F:..... V:..... T:.....	Item	
B1.2	Interpretation		
	F:..... V:..... T:.....	Item	
B2.0	DOCUMENTS		
B2.1	Checking of documents		
	F:..... V:..... T:.....	Item	
B2.2	Provisional bills of quantities		
	F:..... V:..... T:.....	Item	
B2.3	Availability of construction information		
	F:..... V:..... T:.....	Item	
B2.4	Ordering of materials and goods		
	F:..... V:..... T:.....	Item	
B3.0	PREVIOUS WORK AND ADJOINING PROPERTIES		
B3.1	Previous work - dimensional accuracy		
	F:..... V:..... T:.....	Item	
B3.2	Previous work - defects		
	F:..... V:..... T:.....	Item	
B3.3	Inspection of adjoining properties		
	F:..... V:..... T:.....	Item	
B4.0	THE SITE		
B4.1	Handover of site in stages		
	F:..... V:..... T:.....	Item	
B4.2	Enclosure of the works		
	F:..... V:..... T:.....	Item	
B4.3	Geotechnical and other investigations		
	F:..... V:..... T:.....	Item	
B4.4	Encroachments		
	F:..... V:..... T:.....	Item	

SECTION 1: PRELIMINARIES (SECTION B)**Each Item Carried to Collection**

Item		R	c
B4.5	Existing premises occupied		
	F:..... V:..... T:.....	Item	
B4.6	Services - known		
	F:..... V:..... T:.....	Item	
B5.0	MANAGEMENT OF CONTRACT		
B5.1	Management of the works		
	F:..... V:..... T:.....	Item	
B5.2	Progress meetings		
	F:..... V:..... T:.....	Item	
B5.3	Technical meetings		
	F:..... V:..... T:.....	Item	
B6.0	SAMPLES, SHOP DRAWINGS AND MANUFACTURER'S INSTRUCTIONS		
B6.1	Samples of materials		
	F:..... V:..... T:.....	Item	
B6.2	Workmanship samples		
	F:..... V:..... T:.....	Item	
B6.3	Shop drawings		
	F:..... V:..... T:.....	Item	
B6.4	Compliance with manufacturer's instructions		
	F:..... V:..... T:.....	Item	
B7.0	DEPOSITS AND FEES		
B7.1	Deposits and fees		
	F:..... V:..... T:.....	Item	
B8.0	TEMPORARY SERVICES		
B8.1	Water		
	F:..... V:..... T:.....	Item	
B8.2	Electricity		
	F:..... V:..... T:.....	Item	
B8.3	Ablution and welfare facilities		
	F:..... V:..... T:.....	Item	

SECTION 1: PRELIMINARIES (SECTION B)

Each Item Carried to Collection

Item		R	c
B8.4	Communication facilities		
	F:..... V:..... T:.....	Item	
B9.0	PRIME COST AMOUNTS		
B9.1	Responsibility for prime cost amounts		
	F:..... V:..... T:.....	Item	
B10.0	ATTENDANCE ON SUBCONTRACTORS		
B10.1	General attendance		
	The contractor shall at his own expense provide the following general attendance on the subcontractors :		
	Access to the site and places where the subcontract work is to be carried out, including the reasonable use of any temporary personnel hoists erected by the contractor		
	The provision of water and lighting and single phase electric power to a position within 50 metres of the place where the subcontract work is to be carried out but excluding water, fuel and power for commissioning of any installation		
	The provision of an area for the subcontractor to establish temporary office accommodation and workshops and for the storage of plant and materials		
	The use of erected scaffolding belonging to the contractor , in common with others having the like right, while it remains erected on the site		
	The use, at reasonable times by arrangement of the contractor's erected hoisting equipment		
	F:..... V:..... T:.....	Item	
B10.2	Special attendance		
	F:..... V:..... T:.....	Item	
B11.0	GENERAL		
B11.1	Protection of the works		
	F:..... V:..... T:.....	Item	
B11.2	Protection/isolation of existing works and works occupied in sections		
	F:..... V:..... T:.....	Item	
B11.3	Security of the works		
	F:..... V:..... T:.....	Item	
B11.4	Notice before covering work		
	F:..... V:..... T:.....	Item	

SECTION 1: PRELIMINARIES (SECTION B)

Each Item Carried to Collection

B11.5	Disturbance The contractor shall keep the site , structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent F:..... V:..... T:.....	Item
B11.6	Environmental disturbance F:..... V:..... T:.....	Item
B11.7	Works cleaning and clearing F:..... V:..... T:.....	Item
B11.8	Vermin F:..... V:..... T:.....	Item
B11.9	Overhand work F:..... V:..... T:.....	Item
B11.10	Tenant installations F:..... V:..... T:.....	Item
B11.11	Advertising F:..... V:..... T:.....	Item

SECTION C: SPECIFIC PRELIMINARIES

Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item

C1.0 CONTRACT DRAWINGS

* Select relevant paragraph and delete whichever is not applicable depending on whether the contract is based on a **bills of quantities** or lump sum document

* The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the **works** and the manner in which they are to be executed

* A full set of drawings is issued with the tender documents indicating the full scope of the work to enable the tenderer to acquaint himself with the nature and extent of the **works** and the manner in which they are to be executed

Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the **principal agent**

F:..... V:..... T:.....

Item

C2.0 PREAMBLES

The document "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" is obtainable on the Department's website (<http://www.publicworks.gov.za/> under "Consultants Guidelines"), and shall be read in conjunction with the **bills of quantities** / lump sum document and be referred to for the full descriptions of work to be done and materials to be used

The document "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" is issued together with the drawings and shall be read in conjunction with the drawings and the **bills of quantities** / lump sum document

F:..... V:..... T:.....

Item

C3.0 TRADE NAMES

Wherever a trade name for any product has been described in the **bills of quantities** / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the **principal agent** being obtained prior to the closing date for submission of tenders

If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for

F:..... V:..... T:.....

Item

C4.0 IMPORTED MATERIALS AND EQUIPMENT

Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations. (refer to Schedule of Imported Materials and Equipment DPW-23(EC) to be completed by tenderer)

Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the

SECTION 1: PRELIMINARIES (SECTION C)

Each Item Carried to Collection

	Contract Price Adjustment Provisions (if applicable)	
	F:..... V:..... T:.....	Item
C5.0	VIEWING THE SITE IN SECURITY AREAS	
	The site is situated in a security area and the tenderer must arrange with the unit commander or other responsible officer to obtain permission to enter the site for tendering purposes	
	F:..... V:..... T:.....	Item
C6.0	COMMENCEMENT OF WORKS IN SECURITY AREAS	
	As the works falls within a security area the contractor must give the unit commander or other responsible officer notice before commencement of the works . Should the contractor fail to make such arrangements, admission to the site may be refused and any additional costs will be for the contractor's account	
	F:..... V:..... T:.....	Item
C7.0	ENTRANCE PERMITS TO SECURITY AREAS	
	As the works falls within a security area the contractor shall obtain entrance permits for his personnel and workmen entering the area and shall comply with all regulations and instructions which may be issued from time to time regarding the protection of persons and property under the control of the Defence Force, Police or chief security officer	
	F:..... V:..... T:.....	Item
C8.0	SECURITY CHECK OF PERSONNEL	
	The principal agent may require the contractor to have his personnel and workmen, or a certain number of them, security classified	
	In the event of the principal agent requesting the removal of a person or persons from the works for security reasons, the contractor shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the works and the site and/or to any document or information relating to the works	
	F:..... V:..... T:.....	Item
C9.0	PROHIBITION ON TAKING OF PHOTOGRAPHS	
	In terms of article 119 of the Defence Act, 44 of 1957, it is prohibited to sketch or to take photographs of any military site or installation or any building or civil works thereon or to be in possession of a camera or other apparatus used for taking of photographs except when authorized thereto by or on behalf of the Minister	
	The same prohibition is also applicable to all correctional institutions in terms of article 44.1(e) of the Correctional Services Act 8 of 1959	
	F:..... V:..... T:.....	Item
C10.0	HIV/AIDS AWARENESS	
	It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this	

SECTION 1: PRELIMINARIES (SECTION C)**Each Item Carried to Collection**

Section of the **bills of quantities** / lump sum document. Provision for pricing of HIV/AIDS awareness is made under items C10.1 to C10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained

The **contractor** must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the **principal agent**, notwithstanding the provisions of Clause A 25.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress **payment certificate** until the **contractor** provides satisfactory proof of compliance. The **contractor** shall not be entitled to any compensation of whatsoever nature, including **interest**, due to such delay of payment

C10.1 **AWARENESS CHAMPION**

Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification

F:..... V:..... T:..... Item

C10.2 **AWARENESS WORKSHOPS**

Selection and appointment of a competent Service Provider approved by the **principal agent**, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification

F:..... V:..... T:..... Item

C10.3 **POSTERS, BOOKLETS, VIDEOS, ETC.**

Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the **construction period**, all in accordance with the HIV/AIDS Specification

F:..... V:..... T:..... Item

C10.4 **ACCESS TO CONDOMS**

Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the **construction period**, all in accordance with the HIV/AIDS Specification

F:..... V:..... T:..... Item

C10.5 **MONITORING**

Monitoring HIV/AIDS awareness of workers, providing the **principal agent** with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the **construction period** and close out, all in accordance with the HIV/AIDS Specification

F:..... V:..... T:..... Item

SECTION 1: PRELIMINARIES (SECTION C)

Each Item Carried to Collection

C11.0 **OCCUPATIONAL HEALTH AND SAFETY ACT**

The **contractor** shall comply with all the requirements as set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)

It is required of the **contractor** to thoroughly study the Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the **bills of quantities** / lump sum document

The **contractor** must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the **principal agent**, notwithstanding the provisions of Clause A25.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress **payment certificate** until the **contractor** provides satisfactory proof of compliance. The **contractor** shall not be entitled to any compensation of whatsoever nature, including **interest**, due to such delay of payment

Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained – **(Also refer to Health & Safety Bill in the Bills of Quantities for pricing of individually itemised Health & Safety Items).**

F:..... V:..... T:.....

Item

C12.0 **EMPLOYMENT AND TRAINING OF YOUTH WORKERS ON THE EXPANDED PUBLIC WORKS PROGRAMME (EPWP) INFRASTRUCTURE PROJECTS: NATIONAL YOUTH SERVICE (NYS)**

The **contractor** shall comply with all the requirements as set out in the “Additional Specification SL: Employment and Training of Youth Workers on the Expanded Public Works Programme (EPWP) Infrastructure Projects: National Youth Service (NYS)” as attached to these **bills of quantities** / lump sum document

The **contractor** shall identify a minimum number of youth workers from a priority list, and shall employ them at the statutory labour rates for a minimum period and train them, all as per the aforementioned specification and as elsewhere measured in these **bills of quantities** / lump sum document

The **contractor** shall liaise and co-ordinate with the **employer** and the EPWP Training Service Provider with regard to the priority list, the selection of youth workers, and the employment and training of the identified youth workers

The **contractor** shall avail the services of an adequately qualified foreman specifically for the EPWP-NYS youth workers, to act as their construction supervisor. The foreman will be responsible for continually monitoring the progress of the youth workers and for addressing questions and issues that may arise from the youth workers

Separate items which will be subject to re-measurement have been included elsewhere in these **bills of quantities** / lump sum document to cover the direct costs associated with the employment and training of the youth workers. Any additional requirements in respect of the aforementioned specification are deemed to be priced hereunder and no additional claims in this regard shall be entertained

F:..... V:..... T:.....

Item

SECTION 1: PRELIMINARIES (SECTION C)**Each Item Carried to Collection**

C13.0 **IMPLEMENTATION OF LABOUR-INTENSIVE INFRASTRUCTURE PROJECTS UNDER THE EXPANDED PUBLIC WORKS PROGRAMME (EPWP)**

The **contractor** shall comply with all the requirements of the “Code of Good Practice for Employment and Conditions of Work for Special Public Works Programmes” issued in terms of the “Basic Conditions of Employment Act, 1997 (Act No 75 of 1997)” and the related “Ministerial Determination”, for the employment of locally employed temporary workers on a labour-intensive infrastructure project under the Expanded Public Works Programme (EPWP)

The **contractor** shall maintain daily records with regard to the workers employed and shall, on a monthly basis, submit a report to the **principal agent** in the prescribed format. Compulsory indicators such as the project budget, actual project expenditure, number of job opportunities created, demographic characteristics of workers employed, minimum daily wage rate, number of person-days of employment created and number of training person-days, shall be included in said report, all as defined in the “Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)”

Provision for pricing of compliance with the aforementioned is made under this clause and it is explicitly pointed out that all requirements in respect of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained

F:..... V:..... T:.....

Item

C14.0 **SHOP DRAWINGS**

The term 'shop drawings' shall mean drawings, layout drawings, diagrams, illustrations, schedules, performance charts, brochures, operating manuals and other data which are prepared by the Contractor or any Sub-Contractor, manufacturer, supplier or distributor and which illustrate the specified portion of the work.

The Contractor shall ensure that all shop drawings required for the Works in terms of this Contract, all Selected/Nominated Sub-Contracts and/or any Principal Agent's instruction, are prepared and submitted timeously in accordance with the following procedure:

A) Three prints of shop drawings of all fabricated work, working or setting out drawings, shop details and schedules shall be submitted to the Principal Agent, for approval. Such work shall not be carried out until such approval has been given.

B) Shop drawings shall be submitted to the Principal Agent for approval at least two weeks prior to the date on which such approval is required in order to comply with the Contract Programme.

C) All submissions shall be prepared in accordance with the Contract drawings and specifications and/or any Principal Agents instructions and any deviation shall be specifically highlighted in writing, with a detailed explanation of the reason for such deviation, together with any cost and/or time implications. Delays in approval of shop drawings due to non-compliance with drawings, specifications and/or Principal Agent's instructions shall not constitute grounds for any claims for delay, extension of time and the like.

D) When the Principal Agent advises that shop drawings have been approved, the original transparencies of such drawings shall immediately be submitted to the Principal Agent so that the Principal Agents stamp of approval may be appended thereto. Thereafter, four prints of the approved shop drawings, setting out drawings and schedules shall be furnished to the Principal Agent. As many prints of the approved shop drawings and schedules as required shall also be furnished to the Works. No work shall be performed in accordance with drawings and/or catalogues not stamped with the Principal Agents approval.

E) The Contractor, Sub-Contractor or Supplier, as the case may be, shall be responsible for ensuring that all dimensions affecting shop drawings conform to the dimensions of built work.

SECTION 1: PRELIMINARIES (SECTION C)

Each Item Carried to Collection

F) The Principal Agents approval of shop drawings is limited to checking conformity with specification and shall not relieve the Contractor, Sub-Contractor or Supplier of his responsibility for design, erection or installation fit, nor does it vary his contractual or delictual obligations and liabilities.

G) Should the Contractor, Sub-Contractor or Supplier be of the opinion that corrections to shop drawings made by the Principal Agent constitute a change to the scope of work, then he shall immediately advise the Principal Agent in writing of this, together with the cost and/or programme implications thereof, in order to obtain the Architects directive.

H) One copy of the final approved set of 'Shop Drawings' is to be submitted to the Quantity Surveyors for purposes of valuation re-measurement.

F:..... V:..... T:.....

Item

C15.0

METHOD STATEMENT

The Tenderer shall produce, when required to do so by the Principal Agent, a Method Statement outlining the methods of construction and labour and plant resources that he proposes to use in the execution of the Works. Any approval given or observation made by the Principal Agent shall not relieve the Contractor of his sole responsibility to adopt the methods of construction and to provide the labour and plant resources necessary for the due and proper timeous execution of the Works.

F:..... V:..... T:.....

Item

**SECTION 1
PRELIMINARIES
COLLECTION**

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C10.3	Posters, booklets, videos, etc	25	
C10.4	Access to condoms	25	
C10.5	Monitoring	25	
C11.0	Occupational Health and Safety Act	26	
C12.0	Employment and Training of Youth Workers on the Expanded Public Works Programme (EPWP) Infrastructure Projects: National Youth Service (NYS)	26	
C13.0	Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)	27	
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SUBTOTALS:		R	c
Category: Fixed R			
Category: Value R			
Category: Time R			

SECTION NO 2

OCCUPATIONAL HEALTH AND SAFETY

SECTION NO. 2

OCCUPATIONAL HEALTH AND SAFETY

BILL NO. 1

OCCUPATIONAL HEALTH AND SAFETY

OCCUPATIONAL HEALTH AND SAFETY

**BILL OF QUANTITIES PRICING OF OCCUPATIONAL
HEALTH AND SAFETY**

The Contractor is to take note of and carefully price all Occupational Health and Safety items listed in the Bill below.

Note: While every effort has been made with the provisions herein to include *inter alia*, compliance with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), and in particular with Regulation 5(1) requiring the compilation of a health and safety plan, as well as Regulation 6(1) requiring the appointment of a construction supervisor, the Contractor is to carefully take note of any obvious omissions and duly make provision for these accordingly in their pricing of this section and the relevant Preliminaries item.

Note: Also refer to the relevant item under Preliminaries in the BOQ document which refers to the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification.

This Bill must be read in conjunction with the Project Health & Safety Specification attached together with these bills of quantities and reference should be made to the Annexures which forms part of this specification and which items are included in this bills of quantities for pricing purposes.

Note:

The Health and Safety Bill needs to be priced and the Contractors Stamp is required on the Priced Bill of Quantities for the Permit Application.

- | | | |
|---|--|--------|
| 1 | Preparation of the Contractor's site specific Health and Safety Plan. | Item |
| 2 | Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act / Construction Regulations. | Item |
| 3 | Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations. | Months |

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Occupational Health And Safety

	Unit	Quantity	Rate	Amount
<u>Provision of Personal Protective Equipment (PPE) :</u>				
4	Reflective vests.	Item		
5	Hard hats.	Item		
6	Protective foot wear.	Item		
7	Earplugs	Item		
8	Dust masks	Item		
9	Gloves	Item		
10	High visibility overalls to SARTSM Chapter 13 Level 3.	Item		
11	Ear Defenders SABS approved	Item		
12	Overalls	Item		
13	Induction Training	Item		
<u>Safety Officers, etc. :</u>				
14	Provision of full time Construction Health and Safety Officer registered with SACPCMP	Months	22	
<u>Cost of Medical Certificates and Medical Surveillance :</u>				
15	Initial (baseline) medical examinations.	Item		
16	Periodic and exit examinations.	Item		
17	Contractor's charges to allow for handling costs and profit in respect of above sub items for medical examinations.	Item		
18	Provision of First Aid Boxes to GSR requirements.	Item		
<u>Noise Monitoring :</u>				
19	Establishment of noise zones (plant)	Item		
20	Audiograms (Personnel)	Item		
<u>Health and Safety Closeout Report :</u>				
21	Submission of a Health and Safety Closeout Report in Electronic Format	Item		
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Bill No. 1				
Occupational Health And Safety				

BILL NO. 1
OCCUPATIONAL HEALTH AND SAFETY
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SECTION NO 3

EMPLOYMENT AND TRAINING OF LABOUR ON THE
EPWP-NYS

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SECTION NO. 3

**EMPLOYMENT AND TRAINING OF LABOUR ON THE
EPWP-NYS**

BILL NO. 1

**EMPLOYMENT & TRAINING OF LABOUR ON THE
EPWP-NYS**

**EMPLOYMENT AND TRAINING OF LABOUR ON THE
EPWP-NYS (PROVISIONAL)**

PREAMBLES

Tenderers are advised to study the Additional Specification SL: Employment and Training of Labour on the Expanded Public Works Programme (EPWP) Infrastructure Projects: National Youth Service, as bound elsewhere in the Bills of Quantities, and then price this Bill accordingly.

**TRAINING OF YOUTH WORKERS (TARGET : 26
YOUTH WORKERS)**

Life Skills Development and Technical Training:

1 Life Skills development training for youth workers for an average of 5 days (ref. SL 11.01.01) (Provisional).

Prov

182 000 00

2 Technical Skills and training for youth workers for an average of 45 days (ref. SL 11.01.02) (Provisional).

Prov

650 000 00

Note: The above item is only applicable if DoL does not fund the Technical Training PRIOR to site handover.

3 Payment reduction due to not meeting the target as in SL 11.01.02 : (-R2,000.00). (Rand Per Youth-Worker).

Yth-
worker

0

4 Profit and attendance (on both items).

Item

TRAVELLING AND ACCOMMODATION DURING OFF-SITE TRAINING:

Life Skills Training for 5 days (ref. SL 11.02.01):

5 01 Travelling (based on R150 / day return trip/facilitator.)

Sum

750 00

6 02 Accommodation (based on 5 nights / week and R 800 / facilitator / night).

Sum

4 000 00

Technical Training for 45 days (ref. SL 11.02.02):

7 01 Travelling (based on R150 / day return trip/facilitator.)

Sum

6 750 00

8 02 Accommodation (based on 5 nights / week and R 800 / facilitator (x1) / 39 nights).

Sum

36 000 00

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Section No. 3

Bill No. 1

Employment & Training Of Labour On The Epwp-nys

		Unit	Quantity	Rate	Amount
<u>Tests for Medical Fitness :</u>					
9	01 Provision of General Medical Practitioner or Clinic to examine EPWP youth workers on medical fitness before appointment (including COVID 19 PPE).	No			52 000 00
10	Profit and Attendance (ref. SL 11.05.02)	Item			
<u>ALTERNATIVE WORKERS FOR THE PERIOD OF OFF-SITE TRAINING:</u>					
11	Life Skills Training for 5 days (ref. SL 11.03.01)	Wrker-days			22 500 00
12	Technical training for youth workers for 45 days (ref. SL 11.03.02)	Wrker-days			150 000 00
<u>EMPLOYMENT OF YOUTH WORKERS</u>					
The unit of measurement shall be the number of youth workers at the Ministerial Determination labour rates multiplied by the period employed in months and the rate tendered shall include full compensation for all costs associated with the employment of youth workers and for complying with the conditions of contract. The cost for the training shall be excluded from this item. This item is based on max of 9 months appointment for youth workers.					
13	Employment of youth workers (off - site training).	Wrker-days			231 660 00
14	Employment of youth workers (on - site training).	Wrker-days			694 980 00
15	Profit and attendance on 2 above Items.	Item			
<u>PROVISION OF EPWP PPE, BRANDED OVERALLS & T-SHIRT/GOLF SHIRTS TO YOUTH WORKERS</u>					
16	Supply 2 x EPWP/NYS branded overalls, 2 x safety shoes, 1 x hard hat, 2 x EPWP/NYS branded T-shirts etc, to youth workers (ref. SL 11.05.01). SABS Approved.	Sum			41 600 00
17	Profit and Attendance (ref. SL 11.05.02).	Item			
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Employment & Training Of Labour On The Epwp-nys					

		Unit	Quantity	Rate	Amount
<u>PROVISION OF SMALL TOOLS FOR YOUTH WORKERS</u>					
18	Supply of small tools to youth workers. Specification to be supplied by the EPWP-NYS Service Provider for the respective trades. (ref. SL 11.06.01).	Sum			46 800 00
19	Profit and attendance (ref. SL 11.06.02).	Item			
<u>PROVISION OF CATERING FOR EXIT WORKSHOP</u>					
20	Sourcing of catering company for provision of meals during NYS EXIT Workshop and arrangement of hiring venue for the workshop.	Item			30 000 00
<u>APPOINTMENT OF YOUTH TEAM LEADER</u>					
21	Appointment of Youth Team Leader/s for the duration of the contract (ref. SL 11.07).	Sum			63 000 00
22	Liaison with Service Provider and EPWP (for provision of information) (ref. SL 11.08).	Hrs	200		
<p>Note: Monthly reporting and administration of the EPWP system including submission of EPWP Reporting System (ERS) beneficiary registration tool to the principal agent on a monthly cycle to reflect employment on a government construction site. Records will include that of reflection of all labour employed by the main contractor himself as well as all the subcontractors on site. A separate sheet, although the same format, will be completed for Local Labour beneficiaries for the sub-contractor (if applicable).</p>					
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Employment & Training Of Labour On The Epwp-nys					

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EMPLOYMENT & TRAINING OF LABOUR ON THE EPWP-NYS
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1 EMPLOYMENT & TRAINING OF LABOUR ON THE EPWP-NYS

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SECTION NO 4

**BUILDING WORKS - EXISTING MAGISTRATES
OFFICES**

SECTION NO. 4
BUILDING WORKS - EXISTING MAGISTRATES OFFICES
BILL NO. 1
ALTERATIONS (PROVISIONAL)

<u>Key:</u>	<u>Location Description:</u>
MO	Magistrates Offices
OW	Outdoor Covered Wait
It	Item

PREAMBLES

For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.

ALTERATIONS, ETC.

TEMPORARY BARRIERS, SCREENS, EXISTING SERVICES, ETC.

Before starting work, the Contractor shall carry out a thorough survey and examination of buildings or structures to be demolished and satisfy themselves as to the nature and requirements of the contract. The contractor is to locate and mark the positions of existing services affected by demolished work. No extras will be allowed due to the Contractor's failure to carry out the above.

Provide suitable and substantial timber for and execute all needlings, shoring or strutting, screens, scaffolding etc. Necessary to ensure the stability of the structure and all the works during the breaking down, alterations or building up of the works.

Provide all boarding and coverings to protect the existing structure where necessary including protecting all floors, finishes, windows, doors, roofs, etc.

Special care to be exercised not to interfere unnecessarily with any piping or electric light and telephone wires, etc that may be met with.

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Bill No. 1
Alterations (provisional)

Amount

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	Unit	Quantity	Rate	Amount
<p>The contractor must at his own expense make good in all trades to existing work (other than that required to be altered) which is damaged or disturbed during the alterations with all necessary new materials to match and generally as specified for new work and leave complete and perfect in every respect, including cleaning down existing flooring etc.</p> <p>Before starting work the contractor shall locate and mark the positions of existing services affected by the demolition work.</p> <p>"Making good" is to include any labour and material required to match existing work and is to include junction of all new materials with existing work and shall include arisses or slightly rounded arisses etc to plaster.</p> <p>Unless otherwise stated the contractor shall not remove or interfere with any furnishings, fittings or similar articles belonging to the employer, tenants and or their staff.</p> <p>Burning of site materials arising from the demolitions will not be permitted.</p> <p>Note:</p> <p>Old materials from alterations, except where described to be re-used or handed over to the Client, are to become the property of the Contractor.</p> <p><u>LOSS BY THEFT, FIRE OR OTHERWISE</u></p> <p>The risk of loss by theft, fire, storm, riot or otherwise of the buildings or items to be demolished and the materials therein, shall rest entirely with the contractor immediately upon the handing over of the site. He shall take such steps as may deem fit, for his own protection against such loss.</p> <p><u>WATER AND OTHER PIPING</u></p> <p>Any water supply or other piping that may be met with and found necessary to disconnect or cut are to be effectively stopped off and removed to the water metre (excluding the water metre box).</p> <p><u>ELECTRICAL AND OTHER SERVICES</u></p> <p>The removal of electrical installations shall be executed by the electrical sub-contractor. The contractor shall be responsible for the co-ordination of such further work with his own.</p>				
<p>Section No. 4</p> <p>Bill No. 1</p> <p>Alterations (provisional)</p>	Carried to Collection		R	

	Unit	Quantity	Rate	Amount
<u>DEMOLITION, REMOVAL AND WORKS ON SITE</u>				
<p>The contractor shall demolish all existing items, structures or buildings with a minimum amount of damage to adjoining buildings, materials, etc. Any damage caused shall be made good as his own expense with materials to match existing to the entire satisfaction of the Principal Agent.</p> <p>All materials from the demolitions etc., except where described as being set aside for re-use or to be handed over to the employer, will become the property of the contractor and, excepting as provided below, all such old material are to be removed from the site by the contractor, and rates for all works involving demolition are to include for the removal of any resultant rubble and superfluous material.</p> <p>Prices for the removal of doors and frames shall include for the removal of fan lights, ironmongery, architraves and other associated trimmings.</p> <p>The methods, equipment, etc., to be used will be left to the Contractors discretion, providing the Contractor complies with the requirements of the contract, all acts, regulations, by-laws, etc. Should the contractor elect to use explosives or any other demolition technique or method which would necessitate insurance cover in addition to that already provided for herein, then the Contractor shall be responsible for arranging that additional cover and produce proof thereof prior to commencement. The Contractor will also be responsible for any additional excesses required in terms of that additional cover.</p>				
<u>REMOVAL FROM SITE</u>				
<p>Where "removal from", "spoil" or "remove" occurs in terms, it shall include for all loading and carting away from the site to a suitable dumping site found by the Contractor and the Contractor shall pay all fees, etc., in this regard.</p>				
<u>DISPOSAL OF EXISTING ASBESTOS MATERIALS</u>				
<p>The Contractor must refer to the "POLICY ON HANDLING AND DISPOSAL OF ASBESTOS AND ASBESTOS CONTAINING WASTE IN TERMS OF SECTION 20 OF THE ENVIRONMENT CONSERVATION ACT, 1989 (ACT 73 OF 1989), for the manner in which to handle and dispose of all asbestos materials on the site and the Contractor shall be responsible for and pay all fees, etc., in this regard.</p>				
Carried to Collection			R	
Section No. 4				
Bill No. 1				
Alterations (provisional)				

		Unit	Quantity	Rate	Amount
<u>RELOCATION OF CLIENTS EXISTING FURNITURE AND EQUIPMENT, ETC</u>					
<u>Relocation of Clients Existing Furniture & Equipment, etc :</u>					
1	Contractor is to make provision to assist the Department to carefully load, relocate and unload all furniture and equipment to the New Temporary Magistrates Offices on the nearby Decanting Site within 2km of the current site. Contractor is to take all necessary care to protect these items from damage and theft during the relocation. (See Work to be done by SMME)	Item			RATE ONLY
	It 1				
2	Ditto, but assisting in relocating the Department back from the Temporary Magistrates Offices on the nearby Decanting Site within 2km of the current site, to the newly renovated Magistrates Offices on completion of the works. Contractor is to take all necessary care to protect these items from damage and theft during the relocation. (See Work to be done by SMME)	Item			RATE ONLY
	It 1				
<u>REMOVAL OF EXISTING WORK</u>					
<u>Breaking up and removing reinforced concrete:</u>					
3	Ramps.	m ³	4		
	MO 4				
4	Concrete plinth base to rainwater tanks.	m ³	1		
	MO 1				
5	Concrete plinth blocks on concrete surface beds for temporary access ramp and parkhome building.	m ³	2		
	MO 2				
6	100mm Thick surface bed externally in walkways, aprons, etc in damaged patches.	m ²	220		
	MO 220				
7	100mm Thick surface bed externally in courtyards for new foundations and surface beds	m ²	52		
	OW 52				
8	100mm Thick surface bed internally in chimney plinths for chimneys to be demolished.	m ²	7		
	MO 7				
<u>Breaking down and removing brickwork etc:</u>					
9	One brick wall.	m ²	78		
	MO 78				
10	One brick wall to ramps and balustrades	m ²	0		
Carried to Collection				R	
Section No. 4					
Bill No. 1					
Alterations (provisional)					

		Unit	Quantity	Rate	Amount
11	One brick wall in rainwater tank bases. MO 12	m ²	12		
12	One and half brick walls in chimneys to be demolished below ceiling height, including all necessary propping, support and safety scaffolding to chimney walls above, as per Engineers proposed methodology. (See Chimney Brick Up and Demolition Plan). MO 47 <u>Taking out and removing doors, windows, shopfronts, etc including thresholds, all sills, etc (building up or making good to openings elsewhere):</u>	m ²	47		
13	Timber single door and frame 950 x 2100mm high overall from one brick wall. MO 4	No	4		
14	Timber double door and frame 1600 x 2100mm high overall from one brick wall. MO 1	No	1		
15	Timber single door and frame with fanlight 950 x 2750mm high overall from one brick wall. MO 9	No	9		
16	Timber double door and frame with fanlight 1600 x 2750mm high overall from one brick wall. MO 4	No	4		
17	Glazed timber pane window, size 600 x 600mm high, from one brick wall with cill to remain and opening to receive new aluminium window with the same dimensions (elsewhere measured). (W6). MO 4	No	4		
18	Glazed timber cottage pane window, size 1245 x 1996mm high, from one brick wall with cill to remain and opening to receive new aluminium window with the same dimensions (elsewhere measured). (W1). MO 30	No	30		
19	Glazed timber cottage pane window, size 1095 x 1546mm high, from one brick wall with cill to remain and opening to receive new aluminium window with the same dimensions (elsewhere measured). (W2). MO 8	No	8		
Carried to Collection				R	
Section No. 4					
Bill No. 1					
Alterations (provisional)					

		Unit	Quantity	Rate	Amount
	<u>Taking out and removing doors, windows, etc, including thresholds, sills, etc., setting aside for re-use and later refixing in similar new position</u>				
20	Timber single door and frame 900 x 2100mm high overall including setting up and building in new frame (elsewhere measured) in new brickwork, rehang door on new 100mm brass hinges and replacing lock with lever mortice lockset (lock elsewhere measured)	No	3		
	MO 3				
21	Timber single door and frame with fanlight 925 x 2460mm high overall including setting up and building in new frame (elsewhere measured) in new brickwork, rehang door on new 100mm brass hinges and replacing lock with lever mortice lockset (lock elsewhere measured)	No	1		
	MO 1				
22	Timber single door and frame with fanlight 925 x 2887mm high overall including setting up and building in new frame (elsewhere measured) in new brickwork, rehang door on new 100mm brass hinges and replacing lock with lever mortice lockset (lock elsewhere measured)	No	2		
	MO 2				
23	Mild steel gate and frame 900 x 2100mm high overall including setting up and building in frame in new brickwork, rehang gate on new 100mm hinges and replacing lock with gate lockset (lock elsewhere measured).	No	1		
	MO 1				
24	Single records room door and frame 1080 x 1960mm high overall from one brick wall, and move to new position, including setting up and building in to brickwork in new position, including servicing lockset and making good.	No	2		
	MO 2				
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc:</u>				
25	Pitched hipped corrugated iron roof 14000 x 11061 x 1800mm high overall with an approximate roof area of 120m2 and with three projection hipped ends of varying sizes, including all roof covering, timber trusses and purlins, ceilings and cornices, eaves soffit covering, fascias, barge boards, gutters and rainwater downpipes, complete to existing Ablution/Storage Outbuilding A. (Refer to Architects Drawings for Roof Layout and Details).	No	0		
Carried to Collection				R	
Section No. 4					
Bill No. 1					
Alterations (provisional)					

		Unit	Quantity	Rate	Amount
26	Pitched hipped corrugated iron roof 38487 x 26382 x 1800mm high overall with an approximate roof area of 730m2 and with three projectioning ends with gables of varying sizes and lean-to walkway roofs, including all roof covering, timber trusses and purlins, ceilings and cornices, eaves soffit covering, fascias, barge boards, gutters and rainwater downpipes, complete to existing Magistrates Office Building. (Refer to Architects Drawings for Roof Layout and Details).	No	1		
	MO 1				
27	Glazed timber partitioning with built in counters 3.1m high overall to existing accounts and cash hall, complete, including ironmongery, glazed borrowed lights, etc.	m	15		
	MO 15				
28	Tongued and grooved timber suspended floors complete, including skirtings, joists, bearers, etc.	m ²	336		
	MO 336				
	<u>Taking out and removing sundry joinery work:</u>				
29	Timber dado rails and picture rails from brickwork	m	50		
	MO 50				
30	Timber skirtings from brickwork.	m	105		
	MO 105				
31	Pinning boards fom brickwork, approximate size 1200 x 1200mm	No	5		
	MO 5				
	<u>Taking out and removing joinery fittings etc:</u>				
32	Timber slatted bench with mild steel frame mounted to floor and wall approximately 450mm wide and 600mm high.	m	0		
33	Timber floor mounted cupboard with drawers, cupboards and worktops approximately 600mm wide x 1000mm high.	m	15		
	MO 15				
34	Timber shelving to walls, complete, approximately 400mm deep x 2100mm high, consisting of six(6) rows of 400mm deep timber shelves supported on heavy duty brackets on vertical rails, including removing from wall, and making good to wall surfaces.	m	10		
	MO 10				
Carried to Collection				R	
Section No. 4					
Bill No. 1					
Alterations (provisional)					

		Unit	Quantity	Rate	Amount
35	Contractor to provide for carefully taking out All Main Courtroom Joinery Fittings and panelling, etc, including Magistrates Bench, Accused Bench, Witnesses Bench, Stenographer's Table, Podium and Public Seating Benches, etc., and hand over to the Client and safely store on site on behalf of the Client for possible later re-use. It 1 <u>Taking out and removing ironmongery:</u>	Item			
36	Steel hinges from timber door and frame, to receive new (elsewhere), including any necessary repairs to timber in order to fit new hinges. MO 63	No	63		
37	Mortice lock and striking plate from timber door and frame, to receive new (elsewhere), including any necessary repairs, adjustment and making good in order to fit new lockset. MO 20	No	20		
38	Chromium plated towel rail not exceeding 1000mm long. MO 3	No	3		
39	Fire extinguisher including box or mounting brackets and backing board. MO 5	No	5		
40	Stainless steel kick plate, size 813 x 300mm high from timber door. MO 5	No	5		
41	Toilet paper holder. MO 4	No	4		
42	Soap dispensers. MO 3	No	3		
43	Paper towel dispensers. MO 3	No	3		
44	Existing vertical blinds to windows, average size 1200 x 1900mm high. MO 35	No	35		
45	Door stops. MO 20	No	20		
46	Door signage from timber doors or frames, and make good to doors or frames where signage removed. MO 20	No	20		
47	Fire and other wall signage from walls, and make good to walls where signage removed. MO 15	No	15		
Carried to Collection				R	
Section No. 4					
Bill No. 1					
Alterations (provisional)					

		Unit	Quantity	Rate	Amount
<u>Taking out/off and removing sundry metalwork:</u>					
48	Mild steel security grille and frame to fanlights 900 x 900mm high bolted to brickwork and including making good to plaster.	No	14		
	MO 14				
49	Mild steel security burglar proofing frame to windows 1245 x 1996mm high bolted to brickwork internally and including making good to plaster.	No	10		
	MO 10				
50	Mild steel security gate and frame 900 x 2100mm high bolted to brickwork and including making good to plaster.	No	14		
	MO 14				
51	Mild steel external security gate and frame 900 x 2100mm high bolted to brickwork and including making good to plaster.	No	2		
	MO 2				
52	Mild steel security gate and frame 1600 x 2100mm high bolted to brickwork and including making good to plaster.	No	1		
	MO 1				
53	Mild steel heavy duty Cell security gate and frame approximate size 900 x 2000mm high bolted to brickwork and including making good to plaster.	No	2		
	MO 2				
54	Mild steel balustrading to ramps and walkways including making good to concrete.	m	21		
	MO 21				
55	Mild steel flag pole 6 m high from concrete base.	No	1		
	MO 1				
56	Mild steel framework approximately 500mm high with razor wire, fitted to top of prisoner courtyard perimeter wall	m	44		
	MO 44				
57	Mild steel gate roller wheels to existing prisoner sliding gate to be removed and replaced with new wheels to suit sliding gate, to leave gate in perfect working order.	No	2		
	MO 2				
<u>Taking up and removing vinyl floor coverings, carpeting, etc:</u>					
58	Vinyl or vinyl tile floor coverings including preparing screed for new floor coverings.	m ²	13		
	MO 13				
Carried to Collection				R	
Section No. 4					
Bill No. 1					
Alterations (provisional)					

		Unit	Quantity	Rate	Amount
	<u>Hacking up/off and removing granolithic, screeds, plaster, etc from concrete or brickwork and preparing surfaces for new screeds, plaster, etc:</u>				
59	Epoxy floor coating to screeds and prepare for new coating. MO 103	m ²	103		
60	30mm Screed from floors. MO 124	m ²	124		
61	Internal plaster from walls. MO 1553	m ²	1 553		
62	External plaster from walls. MO 1060	m ²	1 060		
	<u>Hacking up/off and removing ceramic tile floor and wall finishes including removing mortar bed or backing and and making good and preparing concrete or brick surfaces for new screed, plaster or tile finishes:</u>				
63	Tiles to floors. MO 124	m ²	124		
64	Tiles to walls. MO 268	m ²	268		
	<u>Taking out and removing piping, taps, sanitary fittings, etc including disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere):</u>				
65	15/22mm Copper piping including fittings and brackets. MO 65	m	65		
66	40/50mm uPVC waste pipe to walls,including fittings and brackets. MO 25	m	25		
67	110mm uPVC waste pipe to walls,including fittings and brackets. MO 15	m	15		
68	110mm Cast iron waste pipe to walls,including fittings and brackets. MO 10	m	10		
69	Hot water geyser, including valves, pipes, overflows, etc. MO 2	No	2		
70	Vitreous china wash hand basin, including tap fittings, wastes, etc. MO 4	No	4		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 1				
	Alterations (provisional)				

		Unit	Quantity	Rate	Amount
71	Stainless steel vandal proof wash hand basin/drinking fountain to cells built into walls, including preparing opening to receive new fitting (elsewhere measured). MO 2	No	2		
72	Stainless steel vandal proof WC pan with flushing mechanism to cells. MO 2	No	2		
73	Vitreous china WC pan with cistern. MO 4	No	4		
74	Vitreous china wall mounted bowl urinal, including flush pipe and fitting.	No	0		
75	Fire hose reel, including disconnecting water supply. MO 2	No	2		
	<u>Taking out and removing glass and mirrors:</u>				
76	Glass from timber doors and fanlight frames, with beads including cleaning out rebates and preparing for new glass. MO 10	m ²	10		
77	Glass from steel prison window frames, with beads including cleaning out rebates and preparing for new glass. MO 2	m ²	2		
78	Mirror 600 x 900mm high from wall. MO 3	No	3		
	<u>CUTTING THROUGH FLOORS AND CEILINGS</u>				
	<u>Cutting through floors and ceilings:</u>				
79	Cutting through 100mm thick concrete surface bed for 450mm wide concrete wall footing including making good concrete on both sides of new half brick wall. MO 15	m	15		
80	Cutting through 100mm thick concrete surface bed for 700mm wide concrete wall footing including making good concrete on both sides of new one brick wall. MO 12 OW 21	m	33		
81	Cutting through 100mm thick concrete surface bed for 1200 x 1200mm brick pier base footing including making good concrete on all sides of 340 x 340mm brick pier. OW 6	No	6		
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		Unit	Quantity	Rate	Amount
<u>BUILDING UP OPENINGS</u>					
<u>Brickwork in NFP bricks in class II mortar in building up:</u>					
82	One brick walls. MO 35	m ²	35		
83	One and half brick walls to chimney openings. MO 6	m ²	6		
<u>Sundries:</u>					
84	Cutting toothings and bonding new brickwork to existing. MO 17	m ²	17		
<u>MAKING GOOD OF FINISHES, ETC.</u>					
<u>Making good cement screeds:</u>					
85	30mm Thick to floors in patches. MO 124	m ²	124		
<u>OPENINGS THROUGH EXISTING WALLS ETC</u>					
<u>Breaking out for and forming openings through brick walls for new doors and frames or windows, including necessary precast concrete lintels and making good plaster on both sides and into reveals and with concrete thresholds with steel trowelled finish (new doors and frames and/or windows and making good paintwork elsewhere measured):</u>					
86	Opening for steel record room door and frame 870 x 1883mm high overall through one brick wall.	No	0		
87	Opening for door with timber frame 900 x 2100mm high overall through one brick wall. MO 6	No	6		
88	Opening for door with timber frame 925 x 2887mm high overall through one brick wall. MO 4	No	4		
89	Opening for window 600 x 600mm high overall through one brick wall. MO 2	No	2		
90	Opening for window 1800 x 600mm high overall through one brick wall.	No	0		
91	Opening for window 1245 x 1996mm high overall through one brick wall. MO 5	No	5		
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		Unit	Quantity	Rate	Amount
<u>CLEANING OR SERVICING OF EXISTING WORKS</u>					
<u>Existing Floor Tiles and Concrete surfaces, etc.</u>					
92	Thoroughly clean down existing internal bathroom floor tiles and external walkway tiles or grano floor surfaces with high pressure steam cleaning and scrubbing machines where and as necessary, to ensure floors are free of all dirt, grime and grease and leave in clean, dry condition, all to the Architects approval.	m ²	119		
	MO 119				
<u>Existing Stainless Steel Fittings:</u>					
93	Thoroughly clean down existing stainless steel plumbing fittings including toilets and water troughs to cells, with an approved cleaner, wash all surfaces and scrub where required to clean off all dirt, grime, mildew, stains or until desired brightness is obtained. Agitate or scrub if necessary and leave in clean, good condition, all to Architects approval.	No	4		
	MO 4				
<u>Existing Plumbing, etc.</u>					
94	Thoroughly inspect existing stainless steel basins/water troughs and toilets, and make good to plumbing, including refixing, servicing taps, replacing plugs, wastes, traps where necessary and leave in perfect working order, all to the Architects approval.	No	4		
	MO 4				
<u>Existing Cell Doors & Gates, etc.</u>					
95	Thoroughly inspect existing steel prison cell gates size 900 x 2000mm high and make good, including servicing of locks, hinges, handles etc as necessary, (new paint elsewhere measured) and leave in perfect working order, all to the Architects approval.	No	2		
	MO 2				
96	Thoroughly inspect existing steel prison cell doors size 893 x 2082mm high and make good, including servicing of locks, hinges, handles etc as necessary, (new paint elsewhere measured) and leave in perfect working order, all to the Architects approval.	No	2		
	MO 2				
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		Unit	Quantity	Rate	Amount
<u>PLASTER CRACK REPAIRS</u>					
<u>Repair cracked plaster areas, as described :</u>					
<u>Moderate Plaster Cracks (0,3mm to 4mm) - Rake out smaller cracks using a scraper blade. Fill these, together with minor plaster defects, mapping and blowholes using Mendall 90. Smooth off whilst still wet, allow to dry. Sand smooth and remove dust. Patch prime repaired area with Professional Plaster Primer (PP 700) and allow 16 hours to dry. Bridge repaired areas with a Professional Waterproofing and Crack-Bridging Compound (PWC 520) applied at a WFT thickness of 650µm.</u>					
97	On external walls. MO 50	m ²	50		
98	On internal walls. MO 50	m ²	50		
<u>Large Plaster Cracks (>4mm) - Rake out large plaster cracks using an angle grinder in an inverted V-shape to >5mm wide and deep. Remove dust and debris. Fill with Masonry Patching Plaster (10 20 03), imitating the existing plaster finish as closely as possible. Patch prime with Professional Plaster Primer (PP 700) and allow 16 hours to dry. Bridge repaired areas with Professional Waterproofing and Crack-Bridging Compound (PWC520) applied at a WFT thickness of 650µm.</u>					
99	On external walls. MO 50	m ²	50		
100	On internal walls. MO 50	m ²	50		
<u>Repairs to Broken/Damaged Plaster & Concrete Areas - Open damaged area sufficiently to allow repair material to be adequately filled in order to achieve a mechanical bond. Clean away dust, grease and grime from surface. Fill areas with Masonry Patching Plaster (10 20 30), by using a putty knife or trowel. Smooth off whilst still wet. Allow to dry. Patch prime using Professional Plaster Primer (PP 700) and allow 16 hours drying at 23°C.</u>					
101	On external walls. MO 50	m ²	50		
102	On internal walls. MO 50	m ²	50		
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<u>EARTHWORKS (PROVISIONAL)</u>												
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<u>SUPPLEMENTARY PREAMBLES</u>												
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.												
<u>Nature of ground:</u>												
The Tenderer must acquaint himself with the nature of the material to be excavated.												
The nature of the ground is assumed to be loose fine to medium sandy material, therefore earth, but possibly interspersed with hard rock or soft rock.												
<u>Subterranean Water:</u>												
No information regarding subterranean water is available. The Tenderer must acquaint himself of the prescence and depth of the subterranean water and allow therefore in his price.												
The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping , baling or otherwise.												
Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water.												
<u>Carting away of excavated material:</u>												
Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.												
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		Unit	Quantity	Rate	Amount
<u>Density Testing :</u>					
Prices for filling are to include for all necessary density and other tests.					
Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved.					
When additional testing is done on instruction of the Architect/Engineer and these tests are successful, they will be paid for additionally.					
<u>EARTHWORKS (PROVISIONAL)</u>					
<u>EXCAVATION OTHER THAN BULK</u>					
<u>Excavation in earth not exceeding 2m deep</u>					
1	Surface trenches.	m ³	51		
	MO 37 OW 14				
2	Surface trenches for rainwater tank plinths	m ³	19		
	MO 19				
3	Holes	m ³	9		
	OW 9				
4	Reduced levels under floors, surface beds, pavings, ramps, etc	m ³	43		
	MO 35 OW 8				
5	Reduced levels under existing timber floors of unsuitable material, to receive concrete surface beds (elsewhere), including removal of rubbish, debris, etc.	m ³	67		
	MO 67				
<u>Extra over excavations other than bulk in earth for excavation in:</u>					
6	Soft rock.	m ³	10		
	MO 7 OW 3				
7	Hard rock.	m ³	5		
	MO 4 OW 1				
<u>Extra over excavations other than bulk in earth for breaking up and removing</u>					
8	Unreinforced concrete in existing footings, etc	m ³	5		
	MO 5				
<u>Risk of collapse of excavations other than bulk:</u>					
9	Sides of trench and hole excavations not exceeding 1,5m deep.	m ²	205		
	MO 138 OW 67				
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		Unit	Quantity	Rate	Amount
<u>CARTING AWAY.</u>					
<u>Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):</u>					
10	In spoil heaps where directed on site, for later re-use. MO 91 OW 31	m ³	122		
11	Off site to a dumping site to be found by the Contractor. MO 88 OW 17	m ³	105		
<u>EARTH FILLING, ETC.</u>					
<u>Filling with selected material from the excavations compacted to a density of at least 95% Mod. AASHTO maximum density:</u>					
12	Backfilling to trenches, holes, etc. MO 20 OW 13	m ³	33		
13	Under surface beds, floors, etc. MO 50	m ³	50		
14	Under surface beds, floors, etc. to rainwater tank plinths MO 2	m ³	2		
15	Under steps, ramps, etc.	m ³	0		
<u>Filling with approved G7 material supplied and carted onto site by the Contractor, compacted to a density of at least 93% Mod. AASHTO maximum density:</u>					
16	Under surface beds, floors, etc. MO 50 OW 4	m ³	54		
17	Under surface beds, floors, etc. to rainwater tank plinths MO 1	m ³	1		
18	Under steps, ramps, etc MO 2	m ³	2		
<u>Filling with approved G5 material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:</u>					
19	Under surface beds, floors, etc. MO 101 OW 4	m ³	105		
20	Under surface beds, floors, etc. to rainwater tank plinths MO 1	m ³	1		
21	Under steps, ramps, etc MO 2	m ³	2		
22	Under pavings, aprons, etc. MO 37	m ³	37		
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		Unit	Quantity	Rate	Amount
	<u>Coarse river sand filling compacted to 95% Mod. AASHTO maximum density:</u>				
23	50mm thick under floors, ramps, etc. MO 387 OW 28	m ²	415		
	<u>Surface Preparation:</u>				
24	Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, aprons, ramps, etc., including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 90% Mod. AASHTO maximum density. MO 607 OW 28	m ²	635		
	<u>KEEPING EXCAVATIONS FREE OF WATER</u>				
	<u>Keeping excavations free of water:</u>				
25	Allow for keeping excavations free of all water by hand or machinery. It 1	Item			
	<u>WEED KILLERS, INSECTICIDES, ETC</u>				
	<u>Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years:</u>				
26	Under floors, etc., including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming. MO 387 OW 28	m ²	415		
27	To bottoms and sides of trenches, etc. MO 194 OW 89	m ²	283		
	<u>TESTS</u>				
	Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Architect/Engineer and these tests are successful, they will be paid for additionally.				
	<u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u>				
28	Modified AASHTO Density test MO 29 OW 2	No	31		
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<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>				
<u>Key:</u>	<u>Location Description:</u>			
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<u>PREAMBLES</u>				
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<u>SUPPLEMENTARY PREAMBLES</u>				
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.				
<u>Cost of Tests:</u>				
The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect/Engineer. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect/Engineer. (Test cubes are measured separately).				
<u>Formwork:</u>				
Descriptions of formwork shall be deemed to include use and waste only (except where described as left in or permanent), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use.				
The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself				
Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described				
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		Unit	Quantity	Rate	Amount
<u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u>					
<u>30MPa/19mm concrete</u>					
11	Slabs including beams and inverted beams. MO 3	m³	3		
12	Slabs to top of brick chimneys. MO 1	m³	1		
<u>TEST BLOCKS</u>					
<u>Test blocks:</u>					
13	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional). MO 17 OW 4	Sets	21		
<u>FINISHING TOP SURFACE OF CONCRETE</u>					
<u>Finishing top surfaces of concrete smooth with a wood float (Class U2):</u>					
14	Surface beds, slabs, aprons, rainwater tank plinths, etc MO 53	m²	53		
<u>Finishing top surfaces of concrete smooth with a power float :</u>					
15	Surface beds, slabs, etc (Provisional). MO 336 OW 28	m²	364		
<u>Finishing top surfaces of concrete to an evenly ribbed non-slip surface</u>					
16	Pavings, ramps, tap bases, etc to falls. MO 235	m²	235		
<u>GROUTING</u>					
<u>25MPa non-shrink grout :</u>					
17	Bedding approximately 15mm thick under 250 x 250mm base plate including chamfered edges all round. OW 6	No	6		
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
<u>Rough Formwork to Sides:</u>					
18	Edges, risers, ends and reveals not exceeding 300mm high or wide. MO 89 OW 23	m	112		
<u>Rough formwork to soffits</u>					
19	Slabs propped up not exceeding 1.5m high to top of chimneys. MO 9	m²	9		
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		Unit	Quantity	Rate	Amount
20	Slabs propped up exceeding 1.5m and not exceeding 3.5m high MO 17 <u>Boxing in rough formwork to form</u>	m ²	17		
21	25 x 25mm Chamfers along top or bottom edges. (Provisional). MO 68	m	68		
22	25 x 25mm Vertical chamfers at corners. (Provisional). MO 2 <u>MOVEMENT JOINTS ETC</u> <u>Two layers of 3-ply malthoid in slip joints between horizontal concrete and brick surfaces including cement mortar bed.</u>	m	2		
23	Not exceeding 300mm wide MO 66 <u>Isolation joints with 10mm Thick 'Sondor' or equally approved jointex joint between horizontal concrete and brick surfaces</u>	m	66		
24	10mm Joints not exceeding 300mm high. MO 259 OW 39	m	298		
25	10mm Joints not exceeding 300mm high at aprons and ramps, etc MO 33 <u>Saw cut joints:</u>	m	33		
26	6 x 20mm Saw cut joints in top of concrete surface beds in construction joints. MO 50 OW 4	m	54		
27	6 x 20mm Saw cut joints in top of concrete aprons and ramps in construction joints. MO 21 <u>REINFORCEMENT, ETC. (PROVISIONAL)</u> <u>Mild steel reinforcement to structural concrete work :</u>	m	21		
28	Varying diameter mild steel R bars MO 0,36 OW 0,12 <u>High tensile steel reinforcement to structural concrete work :</u>	Tonnes	0,48		
29	Varying diameter high tensile steel Y bars MO 0,54 OW 0,24	Tonnes	0,78		
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Concrete, Formwork And Reinforcement					

		Unit	Quantity	Rate	Amount
<u>Fabric reinforcement:</u>					
30	Mesh Ref. No. 193 fabric reinforcement in concrete surface beds, slabs, aprons, ramps, rainwater tank slabs, etc.	m ²	64		
	MO 64				
31	Mesh Ref. No. 156 fabric reinforcement in concrete surface beds, slabs, aprons, ramps, rainwater tank slabs, etc.	m ²	4		
	MO 4				
32	Mesh Ref. No. 245 fabric reinforcement in concrete surface beds, slabs, ramps, etc.	m ²	364		
	MO 336 OW 28				
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<u>BRICKWORK</u>												
<u>Cement Mortar</u>												
Unless otherwise described, all brickwork shall be built in 1:5 cement mortar												
<u>Sizes in descriptions:</u>												
Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.												
<u>Hollow walls etc</u>												
Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole and galvanised butterfly wire ties at 5 per square meter.												
Descriptions of hollow walls to receive concrete filled cavities shall be deemed to include building up brickwork in increments not exceeding 1m high or as otherwise instructed by Engineer, filling cavity with concrete infill, before raising brickwork further.												
Walls in two skins described as 'bagged and sealed' shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats 'Brixéal' bitumen emulsion waterproofing coating.												
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	Unit	Quantity	Rate	Amount
<u>Brick reinforcement</u>				
Descriptions of brickwork shall be deemed to include for steel reinforcing fabric as specified every fourth course in superstructure and every course in foundations. Additional reinforcement in lintols, etc. are measured seperately				
<u>Face bricks</u>				
Bricks shall be ordered timeously to obtain uniformity in size and colour.				
<u>Pointing:</u>				
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.				
<u>Samples:</u>				
Samples of all masonry building units, except those for walls described as 'load bearing', shall consist of a minimum of 6 units. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units from every 30 000 units delivered to site.				
Rates for brickwork, faced brickwork,etc shall include for all required samples.				
<u>Brickwork:</u>				
All brickwork to comply with SANS 10164 Part 1-1980 or the latest revision.				
<u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u>				
<u>Brickwork of NFX bricks (15 MPa nominal compressive strength) in Class I mortar:</u>				
1 Rectangular shaped piers	m ³	1		
OW 1				
2 Half brick walls.	m ²	18		
MO 18				
3 One brick walls.	m ²	38		
MO 24 OW 14				
4 One brick walls in ramps.	m ²	0		
5 One brick walls in rainwater tank plinths	m ²	19		
MO 19				
<u>BRICKWORK IN SUPERSTRUCTURE</u>				
<u>Brickwork of NFP bricks in class II mortar:</u>				
6 Rectangular shaped piers	m ³	1		
OW 1				
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		Unit	Quantity	Rate	Amount
7	Rectangular shaped piers for tap stands MO 1	m ³	1		
8	Half brick walls. MO 71	m ²	71		
9	Half brick walls in beamfilling.	m ²	0		
10	Half brick walls in internal fire walls in roof space.	m ²	0		
11	One brick walls. MO 105	m ²	105		
12	One brick walls in balustrades to outdoor covered waiting area OW 19	m ²	19		
13	One brick walls at ramps and balustrades	m ²	0		
14	One brick walls in rainwater tank plinths MO 10	m ²	10		
15	One brick walls in infill panels on existing prisoner yard walls. MO 14	m ²	14		
16	One brick walls in infill panels between existing brick piers to boundary wall. MO 69	m ²	69		
17	One brick walls in beamfilling. MO 69	m ²	69		
18	One brick walls in internal fire walls in roof space. MO 40	m ²	40		
19	One brick walls of two half brick skins bagged and sealed.	m ²	0		
20	One brick walls of two half brick skins bagged and sealed in gable walls.	m ²	0		
<u>BRICKWORK SUNDRIES</u>					
<u>Brickwork Sundries:</u>					
21	Forming toothings and bonding new brickwork to existing MO 23	m ²	23		
22	Forming toothings and bonding new brickwork to existing in foundations (Provisional) MO 3	m ²	3		
<u>Joint forming material in movement joints:</u>					
23	10mm Bitumen impregnated fibre board/ jointex built in vertically between brick skins and concrete. OW 2	m ²	2		
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		Unit	Quantity	Rate	Amount
24	10mm Bitumen impregnated fibre board/jointex built in vertically between brick skins and concrete in foundations. (Provisional). OW 3	m ²	3		
	<u>Brickwork reinforcement:</u>				
25	75mm Wide reinforcement built in horizontally. MO 213 OW 66	m	279		
26	75mm Wide reinforcement built in horizontally in foundations. (Provisional) MO 220 OW 50	m	270		
27	230mm Wide reinforcement built in horizontally. MO 1020 OW 57	m	1 077		
28	230mm Wide reinforcement built in horizontally in foundations. (Provisional). MO 414 OW 170	m	584		
	<u>Prestressed fabricated concrete lintels including necessary temporary supports :</u>				
29	75 x 110mm Lintels in lengths not exceeding 3m MO 68	m	68		
30	75 x 110mm Lintels in lengths not exceeding 3m, built in as support to chimneys, including cutting and placing in position as per Engineers recommended methodology. (See Chimney Brick Up and Demolition Plan). MO 20	m	20		
31	75 x 110mm Lintels in lengths exceeding 3m and not exceeding 4.5m MO 3	m	3		
32	75 x 110mm Lintels in lengths exceeding 4.5m and not exceeding 6m MO 5	m	5		
	<u>Galvanised hoop iron cramps, ties, etc:</u>				
33	30 x 1,6mm Wall tie 500mm long with one end shot pinned to concrete/brickwork and other end built into brickwork in foundations (Provisional).	No	0		
34	30 x 1,6mm Wall tie 500mm long with one end shot pinned to concrete/brickwork and other end built into brickwork	No	0		
35	30 x 1,6mm Wall tie 500mm long with one end fixed to timber and other end built into brickwork MO 248	No	248		
36	30 x 1,6mm Roof tie 1,6m long with one end fixed to timber and other end built into brickwork. MO 135	No	135		
	Carried to Collection			R	
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	Masonry				

		Unit	Quantity	Rate	Amount
	<u>BRICKWORK COPINGS, SILLS, ETC.</u>				
	<u>Brick-on-edge header course copings, sills, etc of selected stock bricks, to receive plastered finish on all exposed faces (plaster elsewhere measured):</u>				
37	75mm Wide sill set sloping and slightly projecting. MO 10	m	10		
	<u>FACE BRICKWORK</u>				
	<u>Makana 30-40Mpa Qunu Travetine FBS face bricks (or equally approved), size 222 x 106 x 72mm, manufactured in accordance with SANS 227:2007, bedded and jointed in Class II mortar and pointed with recessed horizontal and vertical joints, suitable for exposure zones 1-2 :</u>				
38	Extra over brickwork for face brickwork in foundations (Provisional). OW 11	m ²	11		
39	Extra over brickwork for face brickwork. OW 46	m ²	46		
	<u>FACE BRICKWORK COPINGS, SILLS, ETC.</u>				
	<u>Brick-on-edge header course copings, sills, etc of Selected Face Bricks as before, pointed with recessed joints on all exposed faces:</u>				
40	220mm Copings on top of one brick walls. OW 19	m	19		
	<u>NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS</u>				
	<u>Natural grey sills in single lengths bedded in class 1 mortar including metal fixing lugs screwed to underside with self tapping screws, etc</u>				
41	15 x 150mm Wide sills set flat and slightly projecting internally. (Provisional). MO 57	m	57		
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<u>BUILDING WORKS - EXISTING MAGISTRATES OFFICES</u>												
<u>BILL NO. 5</u>												
<u>WATERPROOFING</u>												
<table><tr><td><u>Key:</u></td><td><u>Location Description:</u></td></tr><tr><td>MO</td><td>Magistrates Offices</td></tr><tr><td>OW</td><td>Outdoor Covered Wait</td></tr><tr><td>It</td><td>Item</td></tr></table>					<u>Key:</u>	<u>Location Description:</u>	MO	Magistrates Offices	OW	Outdoor Covered Wait	It	Item
<u>Key:</u>	<u>Location Description:</u>											
MO	Magistrates Offices											
OW	Outdoor Covered Wait											
It	Item											
<u>PREAMBLES</u>												
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.												
<u>SUPPLEMENTARY PREAMBLES</u>												
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.												
<u>Waterproofing</u>												
Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs												
Waterproofing is to be laid in strict accordance with the manufacturers Code of Practice and by an Approved Contractor.												
Preparation of substrata:												
Screeded roof surfaces shall be firm, dry and clean. Corners shall be coved or arris rounded. All surfaces to receive waterproofing are to be fully primed with a solvent based bitumen primer.												
Timber boarded roof surfaces shall be dry, clean and even. All internal angles are to receive a timber triangular fillet. Corners and edges shall be arris rounded.												
<u>DAMPPROOFING OF WALLS AND FLOORS</u>												
<u>One layer of 375 micron Consol Plastics Brikrip DPC embossed damp proof course:</u>												
1 In walls.	m²	22										
MO 17 OW 5												
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Waterproofing												

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		Unit	Quantity	Rate	Amount
	<u>One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:</u>				
2	Under surface beds. MO 336 OW 28	m ²	364		
3	Under surface beds at aprons, ramps, etc. MO 39	m ²	39		
4	Under surface beds at rainwater tank plinths. MO 13	m ²	13		
	<u>FLASHINGS ETC.</u>				
	<u>Prepare, prime and apply Geoflex or equally approved and mat fabric and two coats Geoflex liquid plastic flashing compound at 2 l/m2 :</u>				
5	Parapet walls and chimneys (Provisional). MO 35	m ²	35		
6	Bandage flashing 500mm wide (Provisional). MO 95	m	95		
	<u>JOINT SEALANTS ETC</u>				
	<u>Approved silicone or equally approved sealing compound :</u>				
7	In pointing joints around frames and walls externally. MO 305	m	305		
	<u>Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc</u>				
8	6 x 10mm In saw cut construction joints in floors, aprons, etc. MO 71 OW 4	m	75		
9	10 x 10mm In isolation joints in floors, aprons, etc including raking out expansion joint filler as necessary. MO 292 OW 39	m	331		
10	10 x 10mm In vertical expansion joints in brickwork including raking out expansion joint filler as necessary OW 32	m	32		
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<u>BILL NO. 6</u>												
<u>ROOF COVERINGS</u>												
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MO	Magistrates Offices											
OW	Outdoor Covered Wait											
It	Item											
<u>PREAMBLES</u>												
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.												
<u>SUPPLEMENTARY PREAMBLES</u>												
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.												
<u>RIBBED METAL SHEETING AND ACCESSORIES</u>												
<u>Notes:</u>												
The following roof sheeting systems are to be manufactured and/or supplied and installed in strict accordance with the Manufacturer's and/or Supplier's specifications.												
Fixing of all roof sheeting is to be in accordance with the Manufacturer's approved Instruction Book.												
<u>Sheeting :</u>												
The roof cladding shall be Klip-Tite profile Clean Colorbond Matt AZ150 spelter G550 Eclipse MATT finish topcoat 0.53mm steel. A certificate verifying compliance shall be issued by the manufacturer. The profile must include structural transverse stiffener ribs located in the pans / troughs for increased wind loading capabilities. The profile shall be roll-formed with four ribs at centres not exceeding 233mm and a cover width not exceeding 700mm, the pans/troughs shall incorporate transverse stiffener ribs. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm.												
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		Unit	Quantity	Rate	Amount
	<u>0.53mm Thick 700mm cover Klip-Tite profile roll-formed in continuous lengths from certified Clean Colorbond Matt AZ150 Spelter G550 Eclipse MATT finish topcoat on one side and Shadow Grey backing coat to other side, fixed to 50 x 75mm timber purlins at max 1200mm centres, with clips and screws all in strict accordance with the manufacturers specifications and recommendations.</u>				
1	Lean-to roof covering with pitch not exceeding 25 degrees.	m ²	0		
2	Roof covering with a 26 degree pitch. MO 803	m ²	803		
3	Roof covering with a 29 degree pitch.	m ²	0		
	<u>0.53mm Thick 700mm cover Klip-Tite profile roll-formed in continuous lengths from certified Clean Colorbond Matt AZ150 Spelter G550 Eclipse MATT finish topcoat on one side and Shadow Grey backing coat to other side, fixed to C channel steel purlins at max 1200mm centres, with clips and screws all in strict accordance with the manufacturers specifications and recommendations.</u>				
4	Roof covering with pitch not exceeding 25 degrees. OW 32 <u>Klip-Tite Flashings, etc</u> <u>0,53mm Thick to suit Klip-Tite profile AZ150 spelter coated steel G550 with Clean COLORBOND metallic coating finish one side and a standard backing coat to other side in accessories to preceding roof coverings in continuous lengths fitted in strict accordance with manufacturers specifications and recommendations.</u>	m ²	32		
5	Ridge cap 550mm girth 3 times bent and notched on site to suit roof profile. MO 96	m	96		
6	Hip cap 550mm girth 3 times bent and notched on site to suit roof profile. MO 24	m	24		
7	Apex flash 550mm girth 3 times bent and notched on site to suit roof profile. OW 6	m	6		
8	Gable trim/Barge flash 580mm girth, 3 times bent. MO 36 OW 10	m	46		
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		Unit	Quantity	Rate	Amount
9	Headwall flash 375mm girth, 2 times bent and notched on site to suit roof profile. MO 18	m	18		
10	Sidewall flash 408mm girth, 2 times bent. MO 25	m	25		
11	Counter flash 185mm girth, 2 times bent. MO 43	m	43		
12	Apron flash 375mm girth, 2 times bent and notched on site to suit roof profile. MO 44	m	44		
13	Raking valley gutter 616mm girth, 4 times bent along girth with central channel. MO 29	m	29		
14	Broad flute serrated closers to suit profile. MO 342 OW 12	m	354		
<u>ROOF AND WALL INSULATION</u>					
<u>Polyethelene durable double sided reflective foil laminate incorporating layers of aluminium foil, high strength fire retardant Kraft paper and reinforcing scrim bonded together with low density polyethylene :</u>					
15	Insulation sisalation sheeting laid taut over purlins (at approximately 1200mm centres) and fixed concurrent with roof covering with minimum 150mm stapled laps including galvanised steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required, to manufacturers specifications. (Provisional). MO 803 OW 32	m ²	835		
<u>'Isotherm' (or equally approved) 135mm Thick Thermal Insulation non-combustible light weight polyester thermal blanket roof insulation with nominal density 11.5kg/m3 and R-value 3.14m2 K/W.</u>					
16	135mm Thick Thermal Insulation blanket laid taut under top roof truss chord at rake fixed concurrent with the roof covering, including galvanised steel straining wires at not exceeding 300mm centres and tied down top and bottom after tensioning with and including galvanised hoop iron ties, all in accordance with manufacturers recommendations. MO 803	m ²	803		
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<p><u>SECTION NO. 4</u></p> <p><u>BUILDING WORKS - EXISTING MAGISTRATES OFFICES</u></p> <p><u>BILL NO. 7</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>Key:</u> <u>Location Description:</u></p> <p>MO Magistrates Offices</p> <p>OW Outdoor Covered Wait</p> <p>It Item</p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>Particle board:</u></p> <p>Particle board shall comply with the following specifications: a) SANS 1300 Particle board: exterior and flooring type b) SANS 1301 Particle board: interior type.</p> <p><u>Joinery:</u></p> <p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.</p> <p><u>Fixing:</u></p> <p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p> <p>Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs in brickwork or concrete at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere.</p> <p><u>General :</u></p> <p>All glazing to timber doors or frames is elsewhere measured.</p>				
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	Unit	Quantity	Rate	Amount
<p>All factory timber doors are to be pre-treated with a linseed oil based transit stabilizing sealer.</p> <p><u>PREFABRICATED TIMBER ROOF TRUSS CONSTRUCTION ETC</u></p> <p>Plate nailed timber roof trusses are at maximum 1200mm centres.</p> <p>Roof covering is type 700mm Cover Klip-Tite Profile roof sheeting on timber purlins.</p> <p>Ceiling is suspended ceiling panels on suspended tee system or 6mm Nutec / 6.4mm Rhinoboard sheeting on 38 x 50mm brandering.</p> <p>References given in descriptions refer to the respective roofs as a whole and detailed on the Architect's and Engineers drawings annexed to these bills of quantities for tender purposes.</p> <p>Dimensions in descriptions of the roofs or trusses are nominal and actual measurements are to be obtained from the Architect/Engineer and/or taken on site before design or fabrication commences.</p> <p>The design drawings are to be submitted to the Architect/Engineer for approval prior to fabrication commencing.</p> <p><u>Sawn softwood Grade 5 plate nailed timber roof truss construction:</u></p>				
1	No	1		
<p>Roof construction to double pitched roof of Magistrates Office Building Block Building (Roof Area approximately 724m2), complete, with centre double pitched roof for full length of building size 36800 x 7800mm wide x 2000mm high to front portion and with three projecting sections of different sizes with five valley sets and three gable ends, roof with 600mm eaves overhang and extended trusses over walkways on different sides of different widths, all roof structures including all trusses, girders, hipped ends, valleys trusses, jack trusses, overhangs, verandah beams, intersections, temporary and permanent bracings, valley boarding, etc, and including all sundry materials, hangers, straps, bolts, washers, clips, etc. all as per the Architects & Engineers Plans and Roof Drawings at the back of these Bills of Quantities and in accordance with an Approved prefabricated Mitek timber roof truss design. (Magistrates Office Block, complete).</p>				
MO 1				
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		Unit	Quantity	Rate	Amount
2	Roof construction to double pitched roof of Outbuilding A (Ablutions/Stores) Building with small lean-to roof (Roof Area approximately 123m ²), complete, with centre double pitched roof for full length of building size 13835 x 7000mm wide x 1800mm high, with one projecting roof area and a small lean-to roof, with two valleys and three hipped ends of varying sizes, roof with 600mm eaves overhang on all sides, all roof structures including all trusses, girders, hipped ends, valleys trusses, jack trusses, overhangs, intersections, temporary and permanent bracings, valley boarding, etc, and including all sundry materials, hangers, straps, bolts, washers, clips, etc. all as per the Architects & Engineers Plans and Roof Drawings at the back of these Bills of Quantities and in accordance with an Approved prefabricated Mitek timber roof truss design. (Outbuilding A Building/Ablutions, complete).	No	0		
3	Roof construction to double pitched roof of Outbuilding B (Maintenance Offices) Building (Roof Area approximately 31m ²), complete, with centre double pitched roof for full length of building size 6539 x 3775mm wide x 1500mm high, with two gable ends, roof with 600mm eaves overhang on sides and 300mm overhang at verges, all roof structures including all trusses, girders, overhangs, intersections, temporary and permanent bracings, etc, and including all sundry materials, hangers, straps, bolts, washers, clips, etc. all as per the Architects & Engineers Plans and Roof Drawings at the back of these Bills of Quantities and in accordance with an Approved prefabricated Mitek timber roof truss design. (Outbuilding B / Maintenance Offices Building, complete).	No	0		
4	Allow for design, supply, inspection and Engineering certificate of approval, TR1 & TR2, by an Approved Manufacturer for the manufacture and the erection of ALL new roof trusses to ALL buildings, complete, all to the Engineers and Architects approval.	Item			
	It 1				
	<u>ROOF CONSTRUCTION</u>				
	<u>Sawn softwood :</u>				
5	38 x 114mm Wall plates. MO 163	m	163		
6	38 x 114mm Backing pieces fixed to purlins at verges at approximately 1200mm centres with galvanised steel 'Trip-L-Grip' brackets to receive barge boards (elsewhere measured). (Provisional). MO 32	m	32		
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		Unit	Quantity	Rate	Amount
7	38 x 114mm Backing piece fixed to end of rafters at eaves at approximately 1200mm centres with galvanised steel 'Trip-L-Grip' brackets to receive fascia boards (elsewhere measured). MO 160	m	160		
8	50 x 228mm Gangboarding (Provisional) MO 185	m	185		
9	50 x 76mm Purlins. MO 1095	m	1 095		
	<u>Roof Sundries :</u>				
10	50 x 1.6mm 90 Degree Eco truss hanger bracket, bolted to wall with and including 2 x anchor bolts, to receive timber rafters (elsewhere measured). (Provisional). <u>EAVES, VERGES, ETC</u> <u>Fibre Cement medium density plain ungrooved fascias and barge boards:</u>	No	0		
11	12 x 225mm Plain fascia boards, including PVC H-profile jointing strips and corner jointers, twice screwed on with 12x40mm countersunk brass screws at 900mm centres. MO 160 OW 6	m	166		
12	80 x 275mm Socketless barge board, butt jointed and with PVC H-profile joiners and corner jointers, twice screwed on. MO 32	m	32		
	<u>SKIRTINGS</u> <u>Wrought meranti:</u>				
13	70 x 16mm Hollow backed standard meranti skirting with arris rounded top edge, nailed. MO 329	m	329		
	<u>Swartland or equally approved COL skirtings:</u>				
14	22 x 140mm COLSK5 skirting, plugged. MO 68	m	68		
	<u>WROUGHT HARDWOOD DOORS, ETC.</u> All glazing is elsewhere measured. All doors are to be pre-treated with a linseed oil based transit stabilizing sealer.				
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		Unit	Quantity	Rate	Amount
<u>Internal/External Quality (1 Year Guarantee)</u>					
<u>Approved Hardwood Fire Doors hung to timber frames:</u>					
15	44mm Type EBCTBFSO Hardwood Fire Rated door, size 813 x 2032mm high. (See Architects Door Schedule - D 05).	No	4		
	MO 4				
<u>Internal/External Quality (5 Year Guarantee)</u>					
<u>Approved Hardwood Doors hung to timber frames:</u>					
16	44mm Type PD26E Heavy Duty Moulded Raised & Fielded Panel semi-external quality hardwood door, size 813 x 2032mm high. (See Architects Door Schedule - D 02).	No	4		
	MO 4				
<u>Internal/External Quality (10 Year Guarantee)</u>					
<u>Approved Hardwood Doors hung to timber frames:</u>					
17	44mm Type SD15 Moulded Raised & Fielded Panel semi-exterior quality hardwood door, size 813 x 2032mm high. (See Architects Door Schedule - D 19).	No	1		
	MO 1				
18	44mm Type SD16 Moulded Raised & Fielded Panel semi-exterior quality hardwood door, size 813 x 2032mm high. (See Architects Door Schedule - D 22).	No	0		
19	44mm Type MDFHRZHIO horizontal slatted internal quality MDF hardwood door, size 813 x 2032mm high, undercut by 150mm for height 1882mm high. (See Architects Door Schedule - D 23).	No	2		
	MO 2				
20	44mm Type MDFHRZHIO horizontal slatted internal quality MDF hardwood door, size 813 x 2032mm high. (See Architects Door Schedule - D 13).	No	2		
	MO 2				
21	44mm Type MDFHRZHIO Custom made horizontal slatted internal quality MDF hardwood door, size 1000 x 2032mm high. (See Architects Door Schedule - D 28).	No	2		
	MO 2				
22	Extra over for 400 x 400mm high framed opening in timber doors for aluminium louvre unit (louvre unit elsewhere measured).	No	4		
	MO 4				
<u>FRAMED FRAMES ETC</u>					
All door frame profiles are to be manufactured according to SABS specification No. 1129 of 1977.					
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	Unit	Quantity	Rate	Amount
<u>STORAGE SHELVING, ETC. (PROVISIONAL)</u> <u>Supply and fit wall mounted timber and steel shelving complete, consisting of 1820mm long wall bands (code WB1820) with standard epoxy powder coated finish fitted vertically at approximately 670mm centres, fitted as per manufacturers specifications, complete with heavy duty brackets (code WBR 300) for wood shelves and fit six (6) rows of 22mm thick x 380mm wide SAP Lamboard Laminated pine shelving with and including preparation and finish with two coats high quality polyurethane varnish, sanding lightly between coats and shelves screwed to brackets from below :</u>				
31 Steel shelving with six rows of 22mm x 380mm wide laminated SAP timber board shelving on wall bands and brackets, approximately 1916mm high, including finish, fixed to walls. (Provisional).	m	24		
MO 24				
<u>JOINERY FITTINGS</u> General The following joinery and cupboard fittings are given as complete units i.e. the components of the units have not been given separately. Descriptions of such units shall, therefore, be deemed to include all components, assembling, housing, notching, glueing, blocking, planting-on and screwing with countersunk screws, edge strips, thermosetting plastic laminate, glass, ironmongery, metalwork, paint or varnish finishes, etc Prices are to include for all necessary filler pieces against walls etc and fittings are deemed to include clear sealant along all edges between tiles/walls and counter tops and around the edge of sinks/fittings where applicable. References References given in descriptions refer to the respective types of fittings detailed on the architect's drawing as numbered and referenced and annexed to these bills of quantities for tender purposes.				
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		Unit	Quantity	Rate	Amount
<u>Main Court Room Joinery Fittings, etc :</u>					
32	Magistrates Bench in Main Court Room, complete - Size approximately 7308 x 1514mm high overall, consisting of OWA Idealux LT acoustic panelling as per manufacturers specifications one side and 22mm veneered panelling with 19mm hardwood edging other side, fixed to 96 x 50mm horizontal & vertical timber support framework with 100mm cavitybatt / cavitylite insulation inserted into cavity between panelling and finished along top with a 75 x 215mm rebated hardwood top rail and 38 x 128mm hardwood rail to front face on top edge to form 10mm shadowline and bottom to receive a hardwood timber skirting to form a 10mm shadowline. One side to receive 3720 x 600 x 40mm veneered faced timber panelling with 20mm hardwood edging countertop with 32 x 69mm hardwood horizontal support on 2 No 70 x 70mm hardwood vertical posts 641mm high, front side to receive 4400 x 300 x 25mm laminated hardwood seating 450mm high from floor with chamfered edges. All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Magistrates Bench in Main Courtroom Joinery Detail attached - See A20246 - ARCH - 57).	No	1		
MO	1				
33	Accused Bench in Main Court Room, complete - Size approximately 7308 x 1094mm high overall with layout of two rectangular shapes with 800mm wide door on one end, partition consisting of 22mm veneered panelling with 19mm hardwood edging both sides, fixed to 96 x 50mm horizontal & vertical timber support framework with 100mm cavitybatt / cavitylite insulation inserted into cavity between panelling and finished along top with a 75 x 215mm rebated hardwood top rail and 38 x 128mm hardwood rail to one side and a 50 x 170mm hardwood coping to other side with 38 x 128mm hardwood rail to top front edge to form 10mm shadowline to both and bottom to receive a hardwood timber skirting to form a 10mm shadowline, with the floor area between the partitions to receive 20mm thick T&G boarding in a raised platform on 150 x 50mm floor joists at max 600mm centres. One side of partition to receive 4427 x 300 x 25mm laminated hardwood seating 450mm high from floor with chamfered edges and other partition side to receive two laminated hardwood seatings of 1882 x 300 x 25mm and 1816 x 300 x 25mm respectively. All joinery is to receive finish as required.				
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		Unit	Quantity	Rate	Amount
35	<p>Stenographer's Table in Main Court Room, complete - Size approximately 4697 x 1070mm high overall with U-shaped layout, Table and Lectern, consisting of 22mm veneered panelling with 19mm hardwood edging both sides, fixed to 96 x 50mm horizontal & vertical timber support framework with 100mm cavitybatt / cavitylite insulation inserted into cavity between panelling and finished along top with a 75 x 215mm rebated hardwood top rail and 38 x 128mm hardwood rail to front face on top edge to form 10mm shadowline and bottom to receive a hardwood timber skirting to form a 10mm shadowline. Projecting table size 3682 x 600 x 40mm veneered faced timber panelling with 20mm hardwood edging countertop with 32 x 69mm hardwood horizontal support on 5 No 70 x 70mm hardwood vertical posts 660mm high, other side to receive 750 x 426 x 1248mm high Lectern of 22mm veneered panelling with 19mm hardwood edging and 16mm hardwood top. All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Stenographer's Table Joinery Details in Main Courtroom as attached - See A20246 - ARCH - 64).</p> <p>MO 1</p>	No	1		
36	<p>Public Benches (Main Courtroom), complete - Size 2500 x 600 x 779mm high overall, consisting of 30 x 80mm vertical and horizontal hardwood framing size 2500 x 600 x 430mm high and 4 vertical framing back post extensions for backrest 275mm high, with 30 x 80mm hardwood framing piece to base fixed to floor with and including countersunk bolts, bench seat to be filled with 40mm laminated hardwood with chamfered edges size 2500 x 570mm and backrest to receive 30mm laminated hardwood back with chamfered edges size 2500 x 240mm set at an angle., All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Public Bench Joinery Details in Both Courtrooms as attached - See A20246 - ARCH - 66).</p> <p>MO 10</p>	No	10		
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		Unit	Quantity	Rate	Amount
37	Cash Hall Joinery Fitting, complete - Size approximately 5162 x 1900 x 900mm high overall made up of three similar size cubicles with counters, cupboards, shelving, pay trays, etc and consisting of 22mm veneered panelling with 19mm hardwood edging to both sides, fixed to 96 x 50mm vertical timber support framework with 100mm cavitybatt / cavitylite insulation inserted into cavity between panelling, Counter top of 5162 x 960 x 40mm veneered faced timber panelling with 20mm hardwood edging with and including three suitably approved pay trays fitted into counter tops, with three equal extensions for cubicles size 940 x 500 x 40mm veneered faced timber panelling top, all supported with 32 x 69mm hardwood horizontal supports on 6 No 70 x 70mm hardwood vertical posts 791mm high, Including shelves and three drawer/cupboards. Top of counter tops to receive Pay Divider Window and Cubicle Divider Windows all fitted by others (elsewhere measured). All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Cash Hall Joinery Details attached - See A20246 - ARCH - 59).	No	1		
	MO 1				
38	Vote Accounts Joinery Fitting, complete - Size approximately 3421 x 1900 x 900mm high overall made up of two similar size cubicles with counters, cupboards, shelving, pay trays, etc and consisting of 22mm veneered panelling with 19mm hardwood edging to both sides, fixed to 96 x 50mm vertical timber support framework with 100mm cavitybatt / cavitylite insulation inserted into cavity between panelling, Counter top of 3421 x 960 x 40mm veneered faced timber panelling with 20mm hardwood edging with and including two suitably approved pay trays fitted into counter tops, with two equal extensions for cubicles size 940 x 500 x 40mm veneered faced timber panelling top, all supported with 32 x 69mm hardwood horizontal supports on 4 No 70 x 70mm hardwood vertical posts 791mm high, Including all shelves and three drawer/cupboards. Top of counter tops to receive Pay Divider Window and Cubicle Divider Windows all fitted by others (elsewhere measured). All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Vote Accounts Joinery Details attached - See A20246 - ARCH - 63).	No	1		
	MO 1				
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
<u>Outdoor Covered Area Bench Seating, etc :</u>					
39	Hardwood slatted bench seating to Outdoor Covered Area, complete ,comprising of 40 x 40 x 3mm Galvanised mild steel angles in triangular welded frames at 700mm centres bolted to brickwork with and including M10 anchor bolts and top of steel frame to receive 76 x 44mm hardwood slats equally spaced to seating 450mm wide, timber finished with and including 3 coats Rystix sealer. All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Outdoor Covered Waiting Area Drawings attached - See A20246 - ARCH - 53).	m	21		
OW 21					
<u>Search Room Joinery Fittings, etc :</u>					
40	Search Room Joinery Fitting, complete - Size approximately 1400 x 600 x 740mm high overall consisting of open section under counter with three equal drawers on one side, made up of 12mm Corian Mood 201 Solid Surface with splashback upstand bonded to 16mm MDF with hardwood edge primed and painted, 75 x 22mm solid timber support runner notched into top of vertical carcass panels with all front rails being primed and painted and 16mm MDF white melamine carcass panels with black pvc impact edging to leading edges, 16mm melamine clad MDF drawer fronts with equal edging, 16mm melamine faced drawer sides with matching edging and drawer bottoms fixed between drawer sides and 150 x 22mm melamine clad solid timber skirting, including all fittings and ironmongery, complete. All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Search Room Joinery Details attached - See A20246 - ARCH - 71).	No	1		
MO 1					
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
<u>Magistrates Offices Kitchenettes Joinery Fittings, etc :</u>					
41	Magistrates Kitchenette Joinery Fitting, complete - Size approximately 3191 x 600 x 920mm high overall consisting of four doors and six drawers of varying sizes, made up of 12mm Corian Mood 201 Solid Surface with splashback upstand bonded to 16mm MDF with hardwood edge primed and painted with cutout for double bowled sink unit (sink and plumbing elsewhere measured), 75 x 16mm solid timber support runner notched into top of vertical carcass panels with all front rails being primed and painted and 16mm MDF white melamine carcass panels with black pvc impact edging to leading edges, 16mm melamine clad MDF doors and drawer fronts with matching edging, 16mm melamine faced drawer sides with matching edging and drawer bottoms fixed between drawer sides with 16mm MDF white melamine shelf with black pvc impact edging to leading edges and 150 x 22mm solid timber skirting, including all fittings and ironmongery, complete. All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Magistrates Kitchenette Joinery Details attached - See A20246 - ARCH - 71).	No	2		
MO	2				
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<p><u>SECTION NO. 4</u></p> <p><u>BUILDING WORKS - EXISTING MAGISTRATES OFFICES</u></p> <p><u>BILL NO. 8</u></p> <p><u>CEILINGS PARTITIONS AND ACCESS FLOORING</u></p> <p><u>Key:</u> <u>Location Description:</u></p> <p>MO Magistrates Offices</p> <p>OW Outdoor Covered Wait</p> <p>It Item</p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>Ceilings :</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal.</p> <p><u>Fixing :</u></p> <p>Items described as nailed shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p>				
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Ceilings Partitions And Access Flooring				

	Unit	Quantity	Rate	Amount
<p>Items described as plugged and screwed shall be deemed to include screwing to fibre, plastic or metal plugs at centres not exceeding 600mm, and where described as bolted the bolts have been given elsewhere.</p> <p><u>Steel components :</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>Descriptions:</u></p> <p>Boards must be stacked on a level surface in a dry place on a timber platform. Boards must be carried on edge.</p> <p>'Nutec' ceiling boards shall be secured to timber branderling with 32 x 2.5mm galvanized serrrated nails at centres not exceeding 150mm.</p> <p>Skimming of plasterboard ceilings must be plastered the same day that the plasterboard has been erected.</p> <p><u>SUSPENDED CEILINGS</u></p> <p>Proprietary suspended ceilings, hangers, suspension grids, lay-in panels, etc are to be strictly in accordance with the manufacturers' recommendations.</p> <p>Electrical light fittings, diffusers, panels etc are generally lay-in units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof).</p>				
<p>Carried to Collection</p>			R	
<p>Section No. 4</p> <p>Bill No. 8</p> <p>Ceilings Partitions And Access Flooring</p>				

	Unit	Quantity	Rate	Amount
<u>Exposed Ceiling System with Exposed Ceiling Grid :</u>				
<u>OW Adek Gypsum ceiling panels face-covered with white embossed vinyl size 1200 x 600 x 9mm thick, laid on fire rated OW Aconstruct S3 exposed demountable Butt-cut T24 suspension system, comprising galvanised main tees and cross tees, main tees suspended by means of galvanised hangers at centres not exceeding 1200mm with ceiling perimeter finished with OW Aconstruct Shadowline W-trim (elsewhere measured), all installed to manufacturers instructions.</u>				
1 Ceilings suspended not exceeding 1m below timber purlins at 1200mm centres (rafter trusses at 1200mm centres).	m ²	267		
MO 267				
<u>OW Adek ACOUSTIC Gypsum ceiling panels face-covered with white embossed vinyl size 600 x 600 x 9mm thick, laid on fire rated OW Aconstruct S3 exposed demountable Butt-cut T24 suspension system, comprising galvanised main tees and cross tees, main tees suspended by means of galvanised hangers at centres not exceeding 1200mm with ceiling perimeter finished with OW Aconstruct Shadowline W-trim (elsewhere measured), all installed to manufacturers instructions.</u>				
2 Ceilings suspended not exceeding 1m below timber purlins at 1200mm centres (rafter trusses at 1200mm centres).	m ²	152		
MO 152				
<u>Cornices, perimeter trims, etc to suspended ceilings :</u>				
3 Type OW Construct Shadowline W-trim wall angles, plugged and screwed at 200mm centres, all to manufacturers instructions.	m	360		
MO 360				
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	Unit	Quantity	Rate	Amount
<u>NAILED-UP CEILINGS</u>				
<u>6mm Thick Nu-tec Fibre-cement plain ceiling boards (SANS9001:2000) with SANS 803:2005 mark with H-profile galvanised steel jointing strips over joints and fitted using 32x2,5mm serrated ceiling nails at 150mm centres, all in accordance with manufacturers recommendations :</u>				
4 Ceilings including 38 x 50mm sawn softwood brandering at 600mm centres and cross brandering at joints, ends of sheets and at light fittings, etc.	m ²	19		
MO 19				
5 Extra over ceiling for 600 x 600mm trap door of 38 x 50mm wrought softwood rebated framing with one cross brander, covered with ceiling board and fitted flush in opening, including necessary trimmers around.	No	3		
MO 3				
<u>6.4mm Thick Rhinoboard plain ceiling boards (SANS9001:2000) with SANS 803:2005 mark with H-profile galvanised steel jointing strips over joints and fitted using 32x2,5mm serrated ceiling nails at 150mm centres, all in accordance with manufacturers recommendations :</u>				
6 Ceilings including 38 x 50mm sawn softwood brandering at 600mm centres and cross brandering at joints, ends of sheets and at light fittings, etc.	m ²	34		
MO 34				
7 Extra over rhino board ceiling for 4mm diameter 50 x 50 mm aperature galvanised welded mesh mild steel 'fence' screen, or Betafence 358 Double skin Zincalu Steel mesh screen, (or similar approved), fixed to top of bottom chord of timber roof trusses as tamper proof ceiling.	m ²	0		
Carried to Collection			R	
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Ceilings Partitions And Access Flooring				

		Unit	Quantity	Rate	Amount
8	Extra over ceiling for 600 x 600mm trap door of 38 x 50mm wrought softwood rebated framing with one cross brander, covered with ceiling board and fitted flush in opening, including necessary trimmers around.	No	4		
	MO 4 <u>Gypsum plasterboard cornices to nail up ceilings :</u>				
9	75mm Rhino Coved cornice fixed with approved adhesive.	m	115		
	MO 115 <u>Gypsum plasterboard cornices to concrete ceilings :</u>				
10	75mm Rhino Coved cornice fixed with approved adhesive to soffits of slabs.	m	22		
	MO 22 <u>ACCESS FLOORING (PROVISIONAL)</u> <u>Approved Access Flooring System (Intermediate loading) :</u>				
11	600 x 600mm Modular and interchangeable steel panel access flooring including 'Freestanding' understructure pedestal system and all steel panels (code USP52) finished with Heavy commercial 100% Stainproof Miracle Fibre (Polypropylene) structured needlepunch Resinbac SABS Class 2 fire rating carpet tiles, size 500 x 500 x 7mm thick, installed by an approved installer. (Access flooring to finish 150mm above the concrete sub-floor).	m ²	3		
	MO 3				
12	Junctions against walls, islands and columns including additional supporting members, pedestals, etc.	m	6		
	MO 6				
13	Hole for 110mm external diameter pipe through floor panel including sealing.	No	1		
	MO 1				
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		Unit	Quantity	Rate	Amount
14	Extra over access flooring for access grommet.	No	1		
	MO 1				
15	Spare floor panel finished with carpet finish handed to Employer.	No	1		
	MO 1				
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<u>BUILDING WORKS - EXISTING MAGISTRATES OFFICES</u>				
<u>BILL NO. 9</u>				
<u>FLOOR COVERINGS, WALL LININGS, ETC</u>				
<u>Key:</u>	<u>Location Description:</u>			
MO	Magistrates Offices			
OW	Outdoor Covered Wait			
It	Item			
<u>PREAMBLES</u>				
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.				
<u>SUPPLEMENTARY PREAMBLES</u>				
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.				
<u>Fixing</u>				
Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc				
<u>FLOOR COVERINGS, WALL LININGS, ETC.</u>				
The following floor coverings, wall linings, etc. Are to be manufactured and/or supplied by manufacturer as specified and installed in strict accordance with the Manufacturer's and/or Supplier's instructions and specifications.				
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Floor Coverings, Wall Linings, Etc				

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		Unit	Quantity	Rate	Amount
	<u>20mm Zimbabwean Teak Parquet wood flooring laid to standard perpendicular pattern with approved suitable adhesive on suitably prepared cement screed (elsewhere measured), all as per manufacturers instructions.</u>				
1	On floors	m ²	152		
	MO 152				
	<u>METRO 50cm x 50cm Heavy Commercial 8mm Resin backed 9.5mm NexBac carpeting tiles, manufactured from Stainproof Miracle Fibre (Polypropylene), laid in accordance with the SANS 10186 fitting code of practice and product is to be installed in tessellated format only.</u>				
2	On floors	m ²	56		
	MO 56				
	<u>Vinyl Floor Coverings and Wall Linings :</u>				
	<u>6.0mm Thick safe Verona 2000 PUR Safety vinyl floor sheeting (colour to be later confirmed), (or equally approved), laid in an approved neoprene contact adhesive spread with a roller on suitably prepared cement screed (elsewhere measured) with a hygrometer reading showing a moisture content of less than 70%, with joints welded with a fully flexible coloured welding rod to provide a smooth, hygienic sealed finish and rolled with 68kg articulated floor roller, all in accordance with manufacturer's recommendations.</u>				
3	On floors.	m ²	262		
	MO 262				
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Floor Coverings, Wall Linings, Etc					

		Unit	Quantity	Rate	Amount
<u>WALL LININGS</u>					
<u>6mm Amorim (or equally approved) Cork boards in accoustic wall insulation pin board panels size 915 x 610mm, fixed to smooth plastered walls with suitable adhesive and finished with meranti timber frames (elsewhere measured), all in accordance with and as per recommendations and instructions from manufacturer.</u>					
4	On walls	m ²	90		
	MO 90				
<u>SKIRTINGS, NOSINGS, ETC</u>					
<u>Meranti hardwood frames to cork pin boarding panels :</u>					
5	22 x 44mm Hardwood framing to cork panels, plugged to walls.	m	193		
	MO 193				
<u>POLISH, SEALERS, ETC</u>					
<u>Polish, sealers, etc :</u>					
6	Clean down and apply 2 coats approved polish sealer on vinyl flooring, all to manufacturers recommendations.	m ²	262		
	MO 262				
Carried to Collection				R	
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Bill No. 9					
Floor Coverings, Wall Linings, Etc					

		Unit	Quantity	Rate	Amount
<u>MATS (PROVISIONAL)</u>					
<u>'Mat-lok Aluguard' or equally approved single sided barrier mat :</u>					
7	Door mat size 1000 x 500 x 10mm gauge, heel-proof, closed construction barrier mat consisting of electrostatic, buffed-nylon tyre-rubber strips, inserted and fixed into modular natural anodised aluminium scraper sections, fixed with nail-in-anchors in sunken AMF31/31 aluminium mat surround (elsewhere measured). (Provisional)	No	6		
	MO 6				
8	Door mat size 1500 x 1000 x 10mm gauge, heel-proof, closed construction barrier mat consisting of electrostatic, buffed-nylon tyre-rubber strips, inserted and fixed into modular natural anodised aluminium scraper sections, fixed with nail-in-anchors in sunken AMF31/31 aluminium mat surround (elsewhere measured). (Provisional)	No	1		
	MO 1				
<u>'Decramat' or equally approved Mat-well Frame :</u>					
9	Mat surround size 1000 x 500mm formed of natural anodised aluminium pre-formed matwell frame AMF31/31, complete with mitred edges and corner connectors, bedded into screed. (Provisional)	No	6		
	MO 6				
10	Mat surround size 1500 x 1000mm formed of natural anodised aluminium pre-formed matwell frame AMF31/31, complete with mitred edges and corner connectors, bedded into screed. (Provisional)	No	1		
	MO 1				
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Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
<u>HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC</u>					
<u>Approved hinges, floor springs, bolts, panic bolts, etc.:</u>					
1	1040 100mm Anodised aluminium sinkless hinge, centre pin with standard alignment grooving for easy fitment.	No	3		
	MO 3				
2	DBB-SS-009 102x75x3mm EN1935 Grade 13 Stainless steel two ball bearing butt hinge, fire rated, with 120kg carrying capacity per pair.	Pairs	35		
	MO 35				
3	DFB-SC-180 153mm Satin chrome Manual flush bolt with heel.	No	2		
	MO 2				
4	DPS-SS-032 Stainless steel dust proof strike.	No	1		
	MO 1				
<u>LOCKS</u>					
<u>Approved locks, locksets, etc. :</u>					
5	51mm 'All Weather' 5 pin plastic covered external padlock and 3 keys.	No	10		
	MO 10				
6	DCE-002 S.S Stainless steel round cylinder escutcheon.	Pairs	9		
	MO 9				
7	DBC-SS-022 Stainless Steel Adjustable Roller bolt	No	1		
	MO 1				
8	ISEO 1450.00.55 Single Long Throw Profile Cylinder Gate Lock, 55mm Backset.	No	9		
	MO 9				
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
9	DDC056001 KD (60mm) Satin Nickel 60mm Europrofile Nickel Plated 5 pin double cylinder, Key to Differ.	No	9		
	MO 9				
10	DDC056301 KD (63mm) Satin Nickel 63mm Europrofile Nickel Plated 5 pin double cylinder, Key to Differ.	No	21		
	MO 21				
11	DKC056301 KD (63mm) Satin Nickel Europrofile Nickel Plated 5 pin knob cylinder, Key to Differ.	No	1		
	MO 1				
12	D036S SS Stainless steel Cylinder sash lock, case dimensions 116.5mm high x 78mm deep, with forend dimensions 168mm high x 22mm wide and backset 57mm. Centres 61mm.	No	13		
	MO 13				
13	D037D SS Stainless steel Cylinder deadlock, case dimensions 116.5mm high x 78mm deep, with forend dimensions 168mm high x 22mm wide and backset 57mm.	No	9		
	MO 9				
14	DMWC-SS-008 Stainless steel bathroom deadlock, case dimensions 38mm high x 76mm deep, with forend dimensions 78mm high x 22.5mm wide and backset 55mm.	No	10		
	MO 10				
15	DWC-005 Stainless steel bathroom WC indicator (Red & White) and turn knob.	Sets	10		
	MO 10				
16	DWC-006 Stainless steel disabled WC indicator (Red & White) and turn knob for physically impaired.	Sets	2		
	MO 2				
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		Unit	Quantity	Rate	Amount
<u>CATCHES, CABIN HOOKS, ETC</u>					
<u>Catches, cabin hooks, etc</u>					
17	200mm 166 SC on brass cabin hook and eye, fixed to and including 100 x 100 x 75mm thick meranti block with chamfered edges, finished with and including clear varnish and twice bolted to wall with and including 2 x 80mm Rawlbolts.	No	2		
	MO 2				
<u>HANDLES, FLUSH PULLS, ETC</u>					
<u>Handles, flush pulls, etc :</u>					
18	CR001 Cyl S.S Stainless steel lever handle set on rose with cylinder escutcheons	Sets	13		
	MO 13				
19	DPH210 BT Stainless steel 300x30mm Straight tubular pull handle BT.	No	2		
	MO 2				
20	DPH210 BTB Stainless steel 300x30mm Straight tubular pull handle BTB (BTB fixing sets included).	Pairs	8		
	MO 8				
21	DHP-430-BL-SF 75x170 DPH301C Pull Handle BT fixed on a 75x170x1.2mm thick Grade 430 brushed stainless steel plate with no cylinder cutout. Stainless steel plate to have four countersunk holes for screw fixing.	No	8		
	MO 8				
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
<u>PUSH PLATES AND KICKING PLATES</u>					
<u>Push plates and kick plates :</u>					
22	DPP-430-BL-SF 75x170 - Grade 430 brushed stainless steel blank push plate size 75mm x 170mm x 1,2mm thick, four times drilled and countersunk for stainless steel screw fixing to doors.	No	8		
	MO 8				
23	DPP-430-BL-SF 150x300 - Grade 430 brushed stainless steel blank push plate size 150mm x 300mm x 1,2mm thick, six times drilled and countersunk for stainless steel screw fixing to doors.	No	2		
	MO 2				
24	DKP-430-SF 150 - Grade 430 Brushed stainless steel plate 150mm x 813mm x 1,2mm thick, finished size to be checked on site, 10 times drilled and countersunk for stainless steel screw fixing to doors.	No	31		
	MO 31				
25	DKP-430-SF 300 - Grade 430 Brushed stainless steel kick plate 300mm x 813mm x 1,2mm thick, finished size to be checked on site, drilled and countersunk for stainless steel screw fixing to doors.	No	2		
	MO 2				
<u>DOOR CLOSERS</u>					
<u>Approved door closers:</u>					
26	TS91 EN3 FP Stainless Steel Mounting Backplate to be fabricated from 1.6mm thick stainless steel with 8mm diameter pre-drilled holes positioned according to the relevant drawings with all corners to receive 5mm radius fillet, fixed with patent fixing screws.	No	4		
	MO 4				
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
27	TS73V HO-SL EN2-4 Rack and pinion door closer with standard HOLD OPEN scissor arm, EN1154, certified to ISO 9001, hydraulic speed control and backcheck, standard pull side fixing, transom push side fixing, EN2 suitable for door width 750-850mm, EN3 suitable for door width 850-950mm, EN4 suitable for door width 950-1100mm, fire rated, Approved to AS1905 Part 1, colour silver, fixed with patent fixing screws for door closers.	No	2		
	MO 2				
28	TS91B - SL NON HOLD OPEN Cam action slide channel door closer, Max door width 950mm, Closing Force EN 3, hydraulic speed control, Pull-side door leaf fixing (Standard), Push side transom fixing. Door closer compliant with EN 1154. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120, MM/IMM 240, Certified manufacturer to ISO 9001. Colour Silver, fixed with patent fixing screws.	No	9		
	MO 9				
	<u>LETTERS, NAMEPLATES, ETC.</u>				
	<u>Door Signage:</u>				
29	DSS-130M "MALE" stainless steel information sign size 150x150mm, fixed to doors with stainless steel self tapping screws.	No	0		
30	DSS-131F "FEMALE" stainless steel information sign size 150x150mm, fixed to doors with stainless steel self tapping screws.	No	0		
31	DSS-132 MF "MALE/FEMALE" stainless steel information sign size 150x150mm, fixed to doors with stainless steel self tapping screws.	No	1		
	MO 1				
32	DSS-133P "DISABLED PERSONS" stainless steel information sign size 150x150mm, fixed to doors with stainless steel self tapping screws.	No	1		
	MO 1				
	Carried to Collection			R	
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	Ironmongery				

		Unit	Quantity	Rate	Amount
<u>PHOTOLUMINESCENT SIGNS</u>					
<u>SABS approved wall mounted emergency photoluminescent statutory fire signs with pictograms silkscreened on 1mm ABS plastic and in accordance with SANS 1186, framed and Single Sided fixed with suitable screws to walls :</u>					
38	F13 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 384mm, Fire extinguisher with arrow pointing down, fixed to wall with 4 off screws.	No	5		
	MO 5				
39	F14 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 384mm, Fire Hose Reel with arrow pointing down, fixed to wall with 4 off screws.	No	3		
	MO 3				
40	F4 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 578mm, Fire Extinguisher and Fire Hose Reel with arrow pointing down, fixed to wall with 4 off screws.	No	1		
	MO 1				
41	E1 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 384mm, Running Man with arrow pointing right, fixed to wall with 4 off screws.	No	2		
	MO 2				
42	E2 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 384mm, Running Man with arrow pointing left, fixed to wall with 4 off screws.	No	1		
	MO 1				
43	E3 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 384mm, Running Man with arrow pointing down, fixed to wall with 4 off screws.	No	10		
	MO 10				
Carried to Collection				R	
Section No. 4					
Bill No. 10					
Ironmongery					

		Unit	Quantity	Rate	Amount
44	E6 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 384mm, Exit sign, fixed to wall with 4 off screws.	No	1		
	MO 1 <u>SABS approved ceiling mounted emergency photoluminescent statutory fire signs with pictograms silkscreened on 1mm ABS plastic and in accordance with SANS 1186, framed and Double Sided suspended from ceiling tees on 100mm long linked chrome plated chain securely fastened :</u>				
45	E1 Photoluminescent silkscreen on PVC symbolic safety signs one side, size 190 x 384mm, Running Man with arrow pointing right, hung back to back with E2.	No	4		
	MO 4				
46	E2 Photoluminescent silkscreen on PVC symbolic safety signs one side, size 190 x 384mm, Running Man with arrow pointing left, hung back to back with E1.	No	4		
	MO 4 <u>SABS APPROVED VISTRA TYPE SYSTEM WALL MOUNTED ALUMINIUM SIGNS</u> <u>'Vista System' or equally approved Wall mounted aluminium extrusion signs :</u>				
47	WFL13 Size 300 x 80mm Sign (J.1 SEARCH ROOM)	No	1		
	MO 1				
48	WFL13 Size 300 x 80mm Sign (J.2 COURTROOM 02)	No	1		
	MO 1				
49	WFL13 Size 300 x 80mm Sign (J.3 INVERTER ROOM)	No	1		
	MO 1				
50	WFL13 Size 300 x 80mm Sign (J.4 FILE ROOM)	No	1		
	MO 1				
Carried to Collection				R	
Section No. 4					
Bill No. 10					
Ironmongery					

IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE,
REPAIRS & REFURBISHMENT OF ENTIRE FACILITY

IDUTYWA MAGISTRATES COURT
WCS 054991 & 056942

		Unit	Quantity	Rate	Amount
51	WFL13 Size 300 x 80mm Sign (J.5 COURT MANAGER)	No	1		
	MO 1				
52	WFL13 Size 300 x 80mm Sign (J.6 MAGISTRATE)	No	1		
	MO 1				
53	WFL13 Size 300 x 80mm Sign (J.7 MAGISTRATE)	No	1		
	MO 1				
54	WFL13 Size 300 x 80mm Sign (J.8 PUBLIC PROSECUTOR)	No	1		
	MO 1				
55	WFL13 Size 300 x 80mm Sign (J.9 MAIN COURTROOM)	No	1		
	MO 1				
56	WFL13 Size 300 x 80mm Sign (J.10 CASH HALL)	No	1		
	MO 1				
57	WFL13 Size 300 x 80mm Sign (J.11 ADMIN FOYER)	No	1		
	MO 1				
58	WFL13 Size 300 x 80mm Sign (J.12 SERVER ROOM)	No	1		
	MO 1				
59	WFL13 Size 300 x 80mm Sign (J.13 VOTE ACCOUNTS)	No	1		
	MO 1				
60	WFL13 Size 300 x 80mm Sign (J.14 CLERK COURT)	No	1		
	MO 1				
61	WFL13 Size 300 x 80mm Sign (J.15 CONTROL PROSECUTOR)	No	1		
	MO 1				
Carried to Collection				R	
Section No. 4					
Bill No. 10					
Ironmongery					

		Unit	Quantity	Rate	Amount
62	WFL13 Size 300 x 80mm Sign (J.16 RECORDS ROOM 01)	No	1		
	MO 1				
63	WFL13 Size 300 x 80mm Sign (J.17 REGISTRY)	No	1		
	MO 1				
64	WFL13 Size 300 x 80mm Sign (J.18 CLERK OF CRIMINAL)	No	1		
	MO 1				
65	WFL13 Size 300 x 80mm Sign (J.19 CLERK OF CIVIL)	No	1		
	MO 1				
66	WFL13 Size 300 x 80mm Sign (J.20 STORE ROOM)	No	1		
	MO 1				
67	WFL13 Size 300 x 80mm Sign (J.21 RECORDS ROOM 03)	No	1		
	MO 1				
68	WFL13 Size 300 x 80mm Sign (J.22 RECORDS ROOM 02)	No	1		
	MO 1				
69	WFL13 Size 300 x 80mm Sign (J.23 CLEANING EQUIPMENT)	No	1		
	MO 1				
70	WFL13 Size 300 x 80mm Sign (J.24 MAINTENANCE)	No	1		
	MO 1				
71	WFL13 Size 300 x 80mm Sign (J.25 MAINTENANCE)	No	1		
	MO 1				
Carried to Collection				R	
Section No. 4					
Bill No. 10					
Ironmongery					

		Unit	Quantity	Rate	Amount
	<u>'Vista System' or equally approved Wall mounted aluminium extrusion projecting signs :</u>				
72	WBSB4 Size 300 x 100mm Projecting Sign (DISABLED TOILET)	No	2		
	MO 2				
73	WBSB4 Size 300 x 100mm Projecting Sign (MALE/FEMALE)	No	1		
	MO 1				
74	WBSB4 Size 300 x 100mm Projecting Sign (MALE)	No	2		
	MO 2				
75	WBSB4 Size 300 x 100mm Projecting Sign (FEMALE)	No	2		
	MO 2				
	<u>'Vista System' or equally approved Wall mounted aluminium extrusion Multi-Panel Directory signs :</u>				
76	D36 Size 1000 x 1200mm High Multi-Panel Directory Signboard	No	1		
	MO 1				
	<u>BATHROOM FITTINGS</u>				
	<u>Bathroom Fittings:</u>				
77	BHM18P polished stainless steel towel ring, size 203mm diameter, plugged and screwed to wall with stainless steel screws.	No	2		
	MO 2				
78	MR2 Stainless Steel Double Toilet Tissue Dispenser (Code: SA426130), surface mounted, Satin finish stainless steel, overall size 130 x 135 x 256mm high, installed as per manufacturers instructions, complete.	No	6		
	MO 6				
	Carried to Collection			R	
	Section No. 4				
	Bill No. 10				
	Ironmongery				

		Unit	Quantity	Rate	Amount
79	MAINLINE Plastic Hand Cleanser Dispenser (Code: 6948) with 1L capacity, surface mounted, White finish, overall size 235 x 116 x 114mm high, installed as per manufacturers instructions, complete.	No	5		
	MO 5				
80	Slimroll rolled plastic Hand Towel Dispenser (Code: 6953) and holds up to 165m length rolls, surface mounted, White finish, overall size 343 x 318 x 191mm high, installed as per manufacturers installations, complete.	No	5		
	MO 5				
81	MAINLINE Freestanding Plastic Waste Bin (Code: 6993), White finish, 43L Capacity with ASB impact resistant, overall size 569 x 422 x 287mm high, installed as per manufacturers instructions complete.	No	5		
	MO 5				
82	RODX611 Wall Mounted Sanitary Bin, surface mounted Satin finish stainless steel, overall size 200 x 165 x 295mm high, installed as per manufacturers instructions complete.	No	6		
	MO 6				
83	Chrome plated toilet brush set (code: AC-0913-100) size 155 x 120 x 375mm high, plugged.	No	6		
	MO 6				
	<u>Grab Rails:</u>				
84	CNTX700A or equally approved 32mm Diameter satin finished Grade 304 stainless steel side dog leg angle bar (Code: 359877), size 618 x 95 x 256mm with fine grip surface, plugged and screwed to walls with stainless steel screws.	No	2		
	MO 2				
Carried to Collection				R	
Section No. 4					
Bill No. 10					
Ironmongery					

		Unit	Quantity	Rate	Amount
<u>Supply and fit Approved PVC venetian blind, colour: Light Grey, with 50mm thick slats including matching top and bottom tracks with stainless steel separator pins, cordlock and roller pins, blinds to be fitted inside reveal to concrete lintol:</u>					
91	50mm PVC Venetian blinds to suit window opening size 600 x 600mm high. (W06)	No	6		
	MO 6				
92	50mm PVC Venetian blinds to suit window opening size 900 x 1200mm high. (W09)	No	0		
93	50mm PVC Venetian blinds to suit window opening size 1095 x 1546mm high. (W02)	No	8		
	MO 8				
94	50mm PVC Venetian blinds to suit window opening size 1200 x 900mm high. (W03)	No	1		
	MO 1				
95	50mm PVC Venetian blinds to suit window opening size 1245 x 1996mm high. (W01)	No	35		
	MO 35				
96	50mm PVC Venetian blinds to suit window opening size 1800 x 600mm high. (W08)	No	0		
<u>STEEL SAFES, LOCKERS, ETC.</u>					
<u>SABS & SAPS approved Group B2 standard gun safe with key locks:</u>					
97	RHS 9-5 Rifle Safe with Top Compartment with 3mm thick body and 6mm thick door, size 400mm wide x 1500mm high x 345mm deep with a weight of 98kg. (Provisional).	No	1		
	MO 1				
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BILL NO. 10
IRONMONGERY
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<u>BUILDING WORKS - EXISTING MAGISTRATES OFFICES</u>												
<u>BILL NO. 11</u>												
<u>STRUCTURAL STEELWORK</u>												
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<u>PREAMBLES</u>												
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.												
<u>SUPPLEMENTARY PREAMBLES</u>												
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.												
<u>Descriptions</u>												
Descriptions of bolts shall be deemed to include nuts and washers												
Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete												
Descriptions of columns and beams shall be deemed to include flat section base, top, bearer and connection plates												
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete												
Carried to Collection			R									
Section No. 4												
Bill No. 11												
Structural Steelwork												

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	Unit	Quantity	Rate	Amount
<p>NOTE: All structural steelwork to be fabricated and erected in accordance with SABS 0162 - 1984 and SABS 1200H - 1983. Dimensions and levels to be verified on site prior to manufacture. Any discrepancies found during site measure to be reported to and resolved by the Engineer prior to manufacture. All structural steel elements must be inspected by the Engineer prior to transporting to site. All bolts must be galvanised grade 8.8 unless otherwise specified by the Engineer. Bolts shall not have threads within the shear planes. All holes to be drilled at standard backmark. Baseplates to be properly grouted up and painted prior to backfilling being done. All box or circular section ends to be closed with 14mm plates. Where packer plates are used, longer bolts must be used to ensure that sufficient length of thread is taken up by the nuts.</p> <p>All welds to be 6mm continuous fillet or the weld throat thickness to be the thickness of the thinnest of the two parent metals. All structural steel members to be of grade 350W. Purlins and girts to be pre-galvanised.</p> <p>All structural steelwork inclusive of bolts, nuts, washers, plates, connections, etc., other than purlins & girts to be hot dipped galvanised in accordance with SANS 121 or ISO 1461 All hot dipped members to be drilled, cut, welded, etc., prior to galvanising. Prices to include for preparation of shop drawings for approval of the Engineer prior to manufacture. A minimum of 7 days must be allowed for checking of shop drawings. Only structural sizes, connections and splices will be checked. Final dimensions and fitting of members shall remain the contractors responsibility. Prices to include for fabrication, cutting, drilling, bending, welding, etc., delivery to site, and hoisting up and erecting into position. The contractor is responsible for stabilising the structure and maintaining it in the correct position during erection.</p> <p>All purlins and girt cleat holes are to be 14mm Dia for M12 black bolts of grade 4.8. Fixing holes are to be on purlins. All purlin splices are to be fixed staggered and purlins are to be continuous over at least two spans. Purlins are to be fixed to cleats with two bolts at continuous connection and two bolts at purlin or cleat end.</p>				
Carried to Collection			R	
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Bill No. 11				
Structural Steelwork				

	Unit	Quantity	Rate	Amount
<p>Note: The following restrictions are applicable on ground floor slab during construction and erection of structural steel. 0-7 days: Concrete curing; no loading on ground floor slab permitted. 7-14 days: Light foot traffic permitted. 14-28 days: Light vehicles<5 ton.28+ days: Maximum gross crane load during construction = 25 ton (excludes lifting load). Crane outrigger base footings to be on double cross layer of 50 x 228mm timber spreader supports over and area of 1,00 x 1,00m or similar approved by the Engineer to avert damage to concrete ground floor slab. Only tyre cranes permitted on slab.</p> <p>Structural steelwork shall be completed by the Manufacturer - cleaned, hot-dipped galvanised in workshop before transportation to site.</p> <p>Structural steelwork shall be completed by the Manufacturer - cleaned and painted with specified primer in workshop before transportation to site ONLY if specified in the Engineering Structural Steel drawings.</p> <p><u>STRUCTURAL STEELWORK TO OUTDOOR COVERED WAITING AREA</u></p> <p><u>GALVANISED STEEL COLUMNS AND BEAMS</u></p> <p><u>Welded columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete and steel :</u></p>				
1 IPEaa160 x 82 x 16 l-section columns including 250 x 250 x 10mm thick steel base plate four times holed for M16 bolts, fixed to foundation concrete and 6mm thick end plate to top end of column four times bolted to beam, including stiffener plates to both sides of columns, (bolts elsewhere measured). (6 No Columns).	Tonnes	0,37		
OW 0,37				
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Structural Steelwork				

		Unit	Quantity	Rate	Amount
	<u>Welded beams in single lengths with flat bearer and connection plates, bolted to steel :</u>				
2	IPEaa160 x 82 x 16 I-section roof beam rafters bolted to top end of I section columns (elsewhere) and including 6mm connection plates, including haunch's, and stiffeners and including 75 x 60 x 3mm x 130mm long angle cleats four times holed and bolted for fixing to rafter one side and purlins other side, including cleats, welds, mitres to corners, etc, (purlins and bolts elsewhere measured). (3 No Rafter Beams).	Tonnes	0,24		
	OW 0,24				
3	UC152 x 152 x 23 Lintol beams including building in and supporting as necessary, including cleats, welds, mitres to corners, etc,	Tonnes	0,69		
	MO 0,69				
	<u>GALVANISED STEEL PURLINS, GIRTS, BRACING, ETC</u>				
	<u>Purlins and girts, bolted to steel :</u>				
4	125 x 50 x 20 x 2,5mm CFLC Channel section in purlins including mitres to corners and twice bolted to top of rafter beam cleats, to receive sheeting (bolts and sheeting elsewhere measured).	Tonnes	0,13		
	OW 0,13				
	<u>Welded bracing, anti-sag rails, etc with flat connection/gusset plates, etc, bolted to steel</u>				
5	76 x 3.0mm Thick CHS Bracing tubes, with 6mm cap plates each four times holed and bolted to columns (bolts elsewhere measured).	Tonnes	0,08		
	OW 0,08				
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	Structural Steelwork				

		Unit	Quantity	Rate	Amount
<u>BOLTS, FASTENERS, ETC</u>					
<u>Galvanised Bolts, etc. :</u>					
6	M12 High tensile galvanised bolts (Grade 8.8)	No	48		
	OW 48				
7	M16 High tensile galvanised bolts (Grade 8.8)	No	48		
	OW 48				
<u>Galvanised Anchors, etc. :</u>					
8	M16 Chemical anchor holding down anchor to concrete at baseplates.	No	24		
	OW 24				
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	Unit	Quantity	Rate	Amount								
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<u>BUILDING WORKS - EXISTING MAGISTRATES OFFICES</u>												
<u>BILL NO. 12</u>												
<u>METALWORK</u>												
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<u>Descriptions:</u>												
Descriptions of bolts shall be deemed to include nuts and washers.												
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.												
Metalwork described as holed for bolt(s) shall be deemed to exclude the bolts unless otherwise described.												
Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres												
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	Unit	Quantity	Rate	Amount
<p><u>Note :</u></p> <p>Also refer to Supplementary Preambles under Structural Steelwork Bill for clauses relevant to structural metalwork.</p> <p><u>GALVANISED STEEL GATES, SCREENS, ETC</u></p> <p>Note: The contractor is to check on site measurements before placing of order.</p> <p><u>'Shutterway' or equally approved Corosion Resistant Stylish Security swing gate consisting of 32 x 32 x 1.6mm mild steel square hollow section frame with 40 x 4.5mm thick flat bar louveres welded at 48 degrees, all as per manufacturers details and factory powder coated "Matt Black", and hung with one pair of approved steel hinges including double throw dead-lock, complete and fixed to brickwork:</u></p>				
1	No	23		
<p>Single security gate with frame size 860 x 2040mm high (See Architects Door Schedule - D06).</p> <p>MO 23</p> <p><u>GALVANISED STEEL MINOR WORK</u></p> <p><u>Welded bearers/posts for Joinery Fittings to concrete :</u></p>				
2	Kg	63		
<p>80 x 80 x 3.5mm GMS Hollow section posts with 120 x 120 x 3mm baseplate 4 times holed for bolts fitted to floor.</p> <p>MO 63</p>				
3	No	12		
<p>M16mm Chemical anchor bolts to concrete at baseplates.</p> <p>MO 12</p>				
Carried to Collection			R	
Section No. 4				
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Metalwork				

	Unit	Quantity	Rate	Amount
<u>STAINLESS STEEL BALUSTRADING AND HANDRAILS</u>				
<u>316 Brushed stainless steel balustrading to concrete ramps and walkways :</u>				
4 Horizontal balustrading 1000mm high of 50mm diameter stainless steel round tube continuous top rails welded to 16mm diameter stainless steel rod welded to 50mm diameter stainless steel round tube posts at equal 1m centres with bottom of post core fitted 70mm into concrete with 10mm flat bar drilled and fixed into concrete with grey fast curing two component chemical fastener, with stainless steel cover plate to post to top of concrete. Balustrading filled in between posts with 16mm diameter stainless steel rails fixed through and including 26mm diameter stainless steel tubes welded to posts for support, all as per Architects Balustrading Detail attached - A20246 - ARCH - 69.	m	11		
MO 11				
5 Ditto, but in raking balustrading 1000mm high.	m	38		
MO 38				
6 Extra over for ends.	No	11		
MO 11				
7 Extra over for L- intersection of horizontal balustrades.	No	3		
MO 3				
8 Extra over for ramped junction of end of horizontal with end of raking balustrading.	No	5		
MO 5				
Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
	<u>316 Brushed stainless steel handrailing to brickwalls at ramps and walkways :</u>				
9	Grade 316 50mm diameter stainless steel round tube continuous handrails welded to 16mm diameter stainless steel rod welded to 10mm thick stainless steel plate, holed and bolted to wall, including suitable bolts, all as per Architects Balustrading Detail attached - A20246 - ARCH - 69.	m	7		
	MO 7				
10	Extra over for ends.	No	10		
	MO 10				
	<u>STEEL RECORDROOM AND STRONGROOM DOORS, VENTILATORS, ETC</u>				
	<u>SABS approved Record Room doors etc suitable for 230mm walls fixed to brickwork or concrete :</u>				
11	Single ended approved record room ventilator to suit.	No	1		
	MO 1				
12	Record room Type DS1 door and frame 760 x 1883mm high overall with and including 7-lever security keylock and 3-wheel combination lock, finished in rustproof undercoat for final painting by contractor (elsewhere measured). (See Architects Door Schedule - D 21).	No	0		
Carried to Collection				R	
Section No. 4					
Bill No. 12					
Metalwork					

		Unit	Quantity	Rate	Amount
<u>STEEL SECURITY BULLET RESISTANT ANTI-BANDIT DOORS</u>					
<u>Level G3 Bullet Resistant Anti-Bandit Door and 100 x 50mm x 3mm Gauge mild steel frame (Code: G3-ABD-RH-VP-A-00) in white oak veneer with 250mm x 500mm high viewing panel glazed in 53mm thick Clear Glass supplied with 5-Pin CISA Dead Lock, continuous roton type hinge, aluminium slam bar with heavy duty door closer (Dorma TS91) and D-Style pull handles, built into brickwalls,</u>					
13	Anti-Bandit Door and Frame, overall size 925 x 2100mm high, complete with viewing panel glazed with 53mm thick bullet proof glass, heavy duty door closer, kick and push plates, etc. built into one brick wall. (See Architects Door Schedule - D08).	No	2		
MO 2					
<u>NATURAL ANODISED ALUMINIUM LOUVRE DOOR GRILLE</u>					
<u>Approved door grille louvre units with telescopic backframe extruded type 50S anodised grade aluminium with fixed horizontal chevron louvres fitted to openings in doors (openings elsewhere measured):</u>					
14	Door grille Type AGS-T, size 400 x 400mm high overall to fit opening in hardwood door (elsewhere measured), fixed to door with s/s screws punched and counter-sunk and sealed.	No	6		
MO 6					
Carried to Collection				R	
Section No. 4					
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Metalwork					

		Unit	Quantity	Rate	Amount
<u>ALUMINIUM ROLLER SHUTTERS ETC</u>					
<u>Aluminium manual chain operated Perforated roller shutter doors in powder coated colour finish (Colour: Matt Black - RAL 9005), with 350mm headroom with 130mm clearance on free side and 160mm clearance on operator side, 1mm thick perforated slats, rol-lok, chain kit, with slatted canopy cover and weather strip T-Bar to bottom edge, with perimeter framing plugged and screwed to face at maximum 300mm centres to concrete or brickwork, all in accordance with manufacturers specifications and instructions.</u>					
15	Manual chain operated Roller Shutter Door for opening size 1600 x 2000mm high. (See Architects Door Schedule - D01).	No	1		
MO 1					
<u>ALUMINIUM WINDOWS.</u>					
Aluminium windows, etc., are to be constructed and installed in accordance with the guidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAAMSA). These frames cannot be built in and openings must be prepared by the Contractor for the aluminium frame to be fixed into, where after the plaster can be finished up against the frame. All dimensions to be checked and verified on site prior to manufacture.					
Unless otherwise stated ironmongery is to be the manufacturer's standard corrosion resistant ironmongery for the particular product range.					
Glazing is to be carried out in strict accordance with the SANS 0137/2000 Code of Practice: "The Installation of Glazing in Buildings" and where required, safety glazing materials must conform to SANS 1263.					
All opening sashes must be weather and draught proofed using wool pile, vinyl, etc. seals and the perimeter frames sealed to the structure using manufacturer approved sealants.					
Carried to Collection				R	
Section No. 4					
Bill No. 12					
Metalwork					

	Unit	Quantity	Rate	Amount
<p>All aluminium is to be protected after manufacture by removable PVC tape or other approved application. The protection is to be removed only when authorised by the Architect.</p> <p>Any component damaged in any way prior to the completion of the building is to be replaced with new. 'Touching up' of decorative finishes will not be permitted.</p> <p>"The Installation of Glazing in Buildings" and where required, safety glazing materials must conform to SANS 1263 Part 1, 2 & 3 and safety glass must have name of manufacturer permanently marked on each sheet, visible after glazing. Drawings of all sections and fixing details to be used to be submitted for approval and all dimensions are to be verified on site prior to manufacture. All shopfronts and windows must be weatherproofed and sealed where necessary and all aluminium is to be protected during installation and for the duration of construction work by removable PVC tape.</p>				
<p>Section No. 4</p> <p>Bill No. 12</p> <p>Metalwork</p>				
Carried to Collection			R	

	Unit	Quantity	Rate	Amount
<p><u>Alunite Aluminium (or equally approved) purpose made Top hung Aluminium Cottage Pane Windows with a Euro Sash handle locking system, able to meet the mechanical performance requirements of SANS 613 for wind loads of up to 1000Pa with ANAT-15 natural anodized 15 Microns aluminium frame surfaces to receive 60-80um 'Matt Black' powder coating (for Architectural applications), supplied by specialist supplier/manufacturer complying with SANS 1578 and applied in accordance with SANS 1796 by an approved applicator. Glazing shall be executed strictly in conformance with glass manufacturers recommendations and SANS 10137-2011, all in accordance with SANS 10400 Part B, N and XA, window mechanism included Skyline Sash Heavy Duty, Skyline Bead Angled 15mm Gap, Locking Bar, Corner Connector (no crimping), Glass Support Blocks, Butterfly Orange, Back Wedge and Frame Mitre Guides with all mechanical joints to be silicone sealed, fitted in accordance with Wispeco Casement system, plugged and screwed to brickwork or concrete.</u></p> <p><u>Burglar Bars are to be installed to all full window sections between reveals, comprising of Trelidor Cottage Guard (or equally approved) burglar bars with 19mm x 12mm aluminium tube with internal 5mm stain treaded bars with fixing action to be reveal fixed and Burglar bars to have matt black finish.</u></p> <p><u>Descriptions in the bills of quantities are to be read in conjunction with the Architects Window Schedules and Details attached. The references given in the descriptions are to the respective types of windows detailed on the Architect's schedules annexed to these Bills of Quantities for tender purposes.</u></p>				
16	No	8		
<p>Aluminium top hung cottage pane window size 1095 x 1546mm high overall, consisting of one top hung opening section, glazed with 6,38mm PVB N/S Clear laminated safety glass and full window to receive Cottage Guard burglar proofing, all as per Architects Window Schedule Detail - W02.</p>				
MO 8				
Carried to Collection				R
Section No. 4				
Bill No. 12				
Metalwork				

		Unit	Quantity	Rate	Amount
17	<p>Aluminium top hung cottage pane window size 1245 x 1996mm high overall, consisting of one top hung opening section, glazed with 6,38mm PVB N/S Clear laminated safety glass and full window to receive Cottage Guard burglar proofing, all as per Architects Window Schedule Detail - W01.</p> <p>MO 35</p> <p><u>Swartland Kenzo HS219 (or equally approved) Aluminium Windows able to meet the mechanical performance requirements of SANS 613 for wind loads of up to 1500Pa with ANAT-15 natural anodized 15 Microns aluminium frame surfaces to receive 60-80um 'Matt Black' powder coating (for Architectural applications), supplied by specialist supplier/manufacturer complying with SANS 1578 and applied in accordance with SANS 1796 by an approved applicator. Glazing shall be executed strictly in conformance with glass manufacturers recommendations and SANS 10137-2011, all in accordance with SANS 10400 Part B, N and XA, fitted in accordance with manufacturers casement system, plugged and screwed to brickwork or concrete.</u></p> <p><u>Burglar Bars are to be installed to full window sections between reveals, comprising of Trellidor Cottage Guard (or equally approved) burglar bars with 19mm x 12mm aluminium tube with internal 5mm stain treaded bars with fixing action to be reveal fixed and Burglar bars to have matt black finish.</u></p> <p><u>Descriptions in the bills of quantities are to be read in conjunction with the Architects Window Schedules and Details attached. The references given in the descriptions are to the respective types of windows detailed on the Architect's schedules annexed to these Bills of Quantities for tender purposes.</u></p>	No	35		
18	<p>Aluminium top hung window size 600 x 600mm high overall, consisting of one top hung opening section, glazed with 6,75mm Decorlam laminated safety glass and full window to receive burglar proofing, all as per Architects Window Schedule Detail - W06 (Ablutions).</p> <p>MO 6</p>	No	6		
Carried to Collection				R	
Section No. 4					
Bill No. 12					
Metalwork					

		Unit	Quantity	Rate	Amount
19	Aluminium top hung windows size 900 x 1200mm high overall, consisting of two equal vertical sections one opening and one fixed, all glazed with 6,35mm GSA SmartGlass IntruderprufeNS Clear laminated safety glass and full window to receive burglar proofing, all as per Architects Window Schedule Detail - W09.	No	0		
20	Aluminium top hung windows size 1800 x 600mm high overall, consisting of three equal horizontal sections two ends opening and one centre fixed, all glazed with 6,35mm GSA SmartGlass IntruderprufeNS Clear laminated safety glass and full window to receive burglar proofing, all as per Architects Window Schedule Detail - W08.	No	0		
21	Aluminium horizontal sliding window size 1200 x 900mm high overall, consisting of two equal horizontal sections both sliding, all glazed with 6,35mm GSA SmartGlass IntruderprufeNS Clear laminated safety glass and full window to receive burglar proofing, all as per Architects Window Schedule Detail - W03.	No	1		
MO 1					
22	Aluminium fixed internal Dividing Partition/Observation window size 1520 x 630mm high overall, consisting of one fixed section/screen, glazed with 6.35mm GSA SmartGlass IntruderprufeNS Clear laminated safety glass, to manufacturers specifications and instructions and all as per Architects Window Schedule Detail - W10.	No	3		
MO 3					
23	Aluminium fixed internal Observation window size 3000 x 1600mm high overall, consisting of two equal fixed sections, all glazed with 38mm Resistoglas Bullet Resistant clear glass, to manufacturers specifications and instructions and all as per Architects Window Schedule Detail - W04.	No	1		
MO 1					
Carried to Collection				R	
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Bill No. 12					
Metalwork					

		Unit	Quantity	Rate	Amount
24	<p>Aluminium fixed internal Observation window size 4800 x 1600mm high overall with smaller bottom section size 1600 x 200mm high, consisting of three equal fixed sections and smaller bottom pay window section, all glazed with 38mm Resistoglas Bullet Resistant clear glass, to manufacturers specifications and instructions and all as per Architects Window Schedule Detail - W05.</p> <p>MO 1</p> <p><u>ALUMINIUM DOORS, ETC.</u></p> <p>Aluminium doors, etc., are to be constructed and installed in accordance with the guidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAAMSA).</p> <p>Unless otherwise stated ironmongery is to be the manufacturer's standard corrosion resistant ironmongery for the particular product range.</p> <p>Glazing is to be carried out in strict accordance with the SANS 0137/2000 code of Practice: "The Installation of Glazing in Buildings" and where required, safety glazing materials must conform to SANS 1263 and AAAMSA selection guide for safety glazing materials.</p> <p>All opening sashes must be weather and draught proofed using wool pile, vinyl, etc. seals and the perimeter frames sealed to the structure using manufacturer approved sealants.</p> <p>All aluminium is to be protected after manufacture by removable PVC tape or other approved application. The protection is to be removed only when authorised by the Architect. Any component damaged in any way prior to the completion of the building is to be replaced with new. 'Touching up' of decorative finishes will not be permitted.</p> <p>A certificate of conformance with SANS 999 is required.</p>	No	1		
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		Unit	Quantity	Rate	Amount
<p>Descriptions in the bills of quantities are to be read in conjunction with the Architects Door and Shopfront Schedules and Details attached. The references given in the descriptions are to the respective types of doors detailed on the Architect's schedules annexed to these Bills of Quantities for tender purposes.</p> <p><u>Matt Black Powder Coated Aluminium purpose made hinged solid panel door and frame complete, including panel door, frame, hinges with nylon bushes, gasket seals, high quality cylinder lockset, handles, bolts, etc., plugged to brickwork or concrete :</u></p>					
25	40mm Single solid aluminium panel door and frame complete, to fit opening size 900 x 2100mm high, in half brick wall, fitted with approved standard ironmongery, quality cylinder lockset and handles, all as per attached Architects Door Schedule Detail - D30.	No	1		
MO 1					
Carried to Collection					
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		Unit	Quantity	Rate	Amount
<u>ALUMINIUM BURGLAR BARS, ETC</u>					
<u>Burglar Bars are to be installed to door fanlight sections between reveals, comprising of Trellidor Cottage Guard (or equally approved) burglar bars with 19mm x 12mm aluminium tube with internal 5mm stain treaded bars with fixing action to be reveal fixed and Burglar bars to have matt black finish.</u>					
<u>Descriptions in the bills of quantities are to be read in conjunction with the Architects Door Schedules and Details attached. The references given in the descriptions are to the respective types of doors detailed on the Architect's schedules annexed to these Bills of Quantities for tender purposes.</u>					
<u>Note: Burglar Bars to Aluminium Windows as per the Window Schedule are included together with Aluminium Window Descriptions and items measured elsewhere.</u>					
26	Purpose made Burglar Bars to fit door fanlight opening, size 925 x 428mm high. (See Architects Door Schedule - D11).	No	4		
	MO 4				
27	Purpose made Burglar Bars to fit door fanlight opening, size 925 x 858mm high. (See Architects Door Schedule - D04, D05, D10, D18, D19).	No	13		
	MO 13				
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<u>BUILDING WORKS - EXISTING MAGISTRATES OFFICES</u>												
<u>BILL NO. 13</u>												
<u>PLASTERING</u>												
<table><tr><td><u>Key:</u></td><td><u>Location Description:</u></td></tr><tr><td>MO</td><td>Magistrates Offices</td></tr><tr><td>OW</td><td>Outdoor Covered Wait</td></tr><tr><td>It</td><td>Item</td></tr></table>					<u>Key:</u>	<u>Location Description:</u>	MO	Magistrates Offices	OW	Outdoor Covered Wait	It	Item
<u>Key:</u>	<u>Location Description:</u>											
MO	Magistrates Offices											
OW	Outdoor Covered Wait											
It	Item											
<u>PREAMBLES</u>												
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.												
<u>SUPPLEMENTARY PREAMBLES</u>												
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.												
<u>Preparation of surfaces to receive screeds, plaster, etc. :</u>												
Surfaces shall be dry and clean, free of dust, sand, grit and flaking particles, laitance and loose matter, contaminants such as oil, grease, etc. Surfaces shall have a moisture content not exceeding 4%. All free standing water to be removed prior to application of primers or compounds. Absorbent surfaces to be thoroughly pre-soaked in fresh water. Oil, grease, animal fats, etc. to be removed with suitable product to be applied in strict accordance with the manufacturer's instructions. Once clean, surfaces to be profiled mechanically (scabbling, blasting, scarifying, chipping or grinding) or by means of acid etching in strict accordance with the manufacturer's instructions.												
Carried to Collection			R									
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	Unit	Quantity	Rate	Amount
<p>All floors should be level and free of all material as per SANS10155 and all existing screeds should be tested for satisfactory levelness using a level light meter.</p> <p>As a general rule, a maximum deviation of not more than 3mm over an area of 3m is a good guide and will give a quality level floor, with the deviation not being too close together and too frequent.</p> <p>Where the screed does not conform to these requirements then a self levelling screed is to be applied and the rates are to include for the testing of the existing screeds as described above.</p> <p><u>V-Grooves to plaster :</u></p> <p>V-Grooves are deemed to be included and are to be provided in plaster where it meets with concrete columns, slabs or beams.</p> <p><u>GRANOLITHIC:</u></p> <p><u>Method :</u></p> <p>The method to be used shall be either the monolithic method or the bonded method.</p> <p><u>Preparation :</u></p> <p>For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic</p>				
<p>Section No. 4</p> <p>Bill No. 13</p> <p>Plastering</p>				
<p>Carried to Collection</p>			R	

	Unit	Quantity	Rate	Amount
<p><u>Mix :</u></p> <p>Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic.</p> <p><u>Panels :</u></p> <p>Granolithic shall be laid in panels not exceeding 14m for monolithic finishes, not exceeding 9,5m for bonded finishes and not exceeding 6m for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width.</p> <p>Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints.</p> <p><u>Laying :</u></p> <p>Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels.</p> <p>Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels.</p> <p>After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated.</p>				
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Plastering				
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		Unit	Quantity	Rate	Amount
<u>Curing, seasoning and protection</u>					
Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying.					
<u>GRANOLITHIC</u>					
<u>Untinted granolithic, on concrete :</u>					
1	30mm Thick on floors and landings.	m ²	28		
OW 28					
2	Grano skirtings 20mm thick x 100mm high with 30mm radius cove.	m	49		
MO 25 OW 24					
<u>SCREEDS</u>					
<u>Screeds on concrete:</u>					
3	30mm Thick on floors and landings.	m ²	470		
MO 470					
Carried to Collection				R	
Section No. 4					
Bill No. 13					
Plastering					

		Unit	Quantity	Rate	Amount
<u>SELF LEVELLING SCREEDS</u>					
<u>Self levelling screeds on concrete/screeded surfaces :</u>					
<u>Concrete substrates should have a compressive strength of not less than 25 MPa and provides a tensile adhesion strength greater than 1.5 MPa, must be mechanically sound and fully cured in accordance with good concrete practice, must be clean and free of laitance, oil, grease, dust and any other contamination. Prime surface with one coat abe.®prime SLC acrylic primer or equally approved and allow to dry. Mix in accordance with manufacturer's recommendations. Pour abe.® screed SLCP FS fast set self-levelling screed (or equally approved), allow to level out and within 5 minutes roll with a spiked roller, all in accordance with the manufacturer's recommendations.</u>					
4	On floors and landings to receive vinyl floor coverings.	m ²	262		
	MO 262				
5	On floors and landings to receive epoxy coatings.	m ²	50		
	MO 22 OW 28				
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Plastering					

		Unit	Quantity	Rate	Amount
<u>EPOXY SCREEDS / CONCRETE FINISH</u>					
<u>Chemical Resistant Epoxy Screed :</u>					
<u>abe.®screed dura.Top (or equally approved) to be supplied and laid on a suitable sound and vacuum cleaned concrete or screed base primed with abe Prime SLC (or equal) as per exposed trafficked environment outlined under “priming” in the product data sheet. DuraTop screed laid to minimum thickness of 6 mm by hand or by pump 6 mm to 30 mm maximum thickness and Screed to receive two component, solvent free, water dispersed epoxy coating finish. The coating finish will be abe.®cote WD337 (to later colour specification)(or equally approved), a two component, solvent free water dispersed epoxy coating, all applications to be mixed, laid and applied in accordance with the instructions and recommendations of a.b.e.® Construction Chemicals, (or equally approved).</u>					
6	6mm Thick on floors and landings. (Provisional).	m ²	50		
	MO 22 OW 28				
7	6mm Thick on grano skirtings not exceeding 300mm high.	m	49		
	MO 25 OW 24				
<u>INTERNAL PLASTER</u>					
<u>Suitably approved skim plaster applied on existing concrete surfaces for smooth finish, all in accordance with manufacturers specifications :</u>					
8	On existing plastered concrete ceilings	m ²	22		
	MO 22				
<u>Cement plaster on brickwork :</u>					
9	On walls.	m ²	1 840		
	MO 1840				
Carried to Collection				R	
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Plastering					

		Unit	Quantity	Rate	Amount
21	On narrow widths	m ²	42		
	MO 42				
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>				
	<u>Corner protectors, dividing strips, etc.:</u>				
22	3 x 57mm Flat section brass dividing strips between different floor finishes at external doors.	m	17		
	MO 17				
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<u>BUILDING WORKS - EXISTING MAGISTRATES OFFICES</u>				
<u>BILL NO. 14</u>				
<u>TILING</u>				
<u>Key:</u>	<u>Location Description:</u>			
MO	Magistrates Offices			
OW	Outdoor Covered Wait			
It	Item			
<u>PREAMBLES</u>				
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.				
<u>SUPPLEMENTARY PREAMBLES</u>				
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.				
<u>Patterns</u>				
Unless otherwise described, tiles shall be laid with continuous joints in both directions.				
<u>Fixing</u>				
Unless described as fixed with adhesive to plaster (plaster elsewhere) descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding				
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Tiling				

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	Unit	Quantity	Rate	Amount
<p>Tiling described as fixed with adhesive on power floated concrete shall be deemed to include for approved tiling key-coat</p> <p>Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts as recommended by the manufacturer of the tiles</p> <p><u>Preparation of surfaces:</u></p> <p>The area to be tiled is to be wood floated. If tiling onto critical surfaces prime with approved primer or use new generation flexible one part adhesives which enables application directly onto critical surfaces.</p> <p>Surfaces must be firm and free of dust, mould, oil, grease, wax polish and organic growth. Organic growth must be removed and the spores killed with an effective fungicide such as a household bleaching solution.</p> <p>On both walls and floors there are minimum curing periods for walls and concrete floors as well as screeds and plasters and they are as follows:</p> <p>* New concrete floors require 6 weeks curing time before direct bedding</p> <p>* New brick walls require 6 weeks curing time before direct bedding</p> <p>* New concrete floors require 4 weeks curing time before screeding and the screed another 4 weeks before tiling can commence</p> <p>* New brick walls require 4 weeks curing time before plastering and the plaster another 2 weeks before tiling can commence</p>				
<p>Carried to Collection</p>			R	
<p>Section No. 4</p> <p>Bill No. 14</p> <p>Tiling</p>				

		Unit	Quantity	Rate	Amount
<u>CERAMIC / PORCELAIN WALL TILING</u>					
<u>Union Tiles 1ECOB COBLAMAT30X90 (or equally approved) Porcelain Wall Tiles size 300 x 900mm, fixed to internal wall plaster backing (elsewhere measured) with TAL or equally approved professional tile adhesive, with flush pointed joints continuous in both directions and grouted with TAL or equally approved tinted tile grout, with excess grout on the surface to be cleaned with water as the work proceeds, all to manufacturers specifications.</u>					
1	On walls.	m ²	100		
	MO 100				
2	On narrow widths.	m ²	9		
	MO 9				
<u>PORCELAIN FLOOR TILING</u>					
<u>Union Tiles 1OUMSPA6100600 (or equally approved) Porcelain Floor Tiles size 600 x 600mm (Colour to later specification), fixed to internal floor screeds (elsewhere measured) with TAL or equally approved professional tile adhesive mixed with TAL or equally approved bonding liquid in lieu of water, with flush pointed joints continuous in both directions and grouted with TAL or equally approved tinted tile grout, with excess grout on the surface to be cleaned with water as the work proceeds, all to manufacturers specifications.</u>					
3	On floors and landings.	m ²	19		
	MO 19				
4	Skirtings 150mm high of cut tiles.	m	45		
	MO 45				
Carried to Collection				R	
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Tiling					

		Unit	Quantity	Rate	Amount
<u>NOSINGS, JOINT COVERS, PROTECTORS, ETC.</u>					
<u>Approved wall and floor tile edge protectors, transition strips, etc :</u>					
5	Standard aluminium type straight edge tiling trim. (Provisional)	m	103		
	MO 103				
6	Standard aluminium T shaped transition strip for vinyl sheeting to floor tiles. (Provisional)	m	1		
	MO 1				
7	Standard aluminium T shaped transition strip for carpeting to floor tiles. (Provisional)	m	2		
	MO 2				
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<p><u>SECTION NO. 4</u></p> <p><u>BUILDING WORKS - EXISTING MAGISTRATES OFFICES</u></p> <p><u>BILL NO. 15</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>Key:</u> <u>Location Description:</u></p> <p>MO Magistrates Offices</p> <p>OW Outdoor Covered Wait</p> <p>It Item</p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>'Polycop' polypropylene pipes:</u></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with 'Fast-fuse' heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated.</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's</p> <p>All pipe diameters are nominal external.</p>				
Carried to Collection			R	
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Bill No. 15				
Plumbing And Drainage (provisional)				

	Unit	Quantity	Rate	Amount
<u>uPVC pressure pipes and fittings:</u>				
Pipes for water supply shall be of the class stated.				
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.				
Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.				
<u>Copper pipes:</u>				
Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.				
<u>Fixing of pipes, fittings, etc :</u>				
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level				
Descriptions of wall mounted, floor standing, drop-in, etc type sanitary fittings shall be deemed to include fixing in position and all fixing accessories.				
Descriptions of proprietary items shall include fixing in position and all fixing accessories as specified by the manufacturer.				
Carried to Collection			R	
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Plumbing And Drainage (provisional)				

	Unit	Quantity	Rate	Amount
<p><u>Chasing :</u></p> <p>Chasing pipes into new walls shall be regarded as "building in" and is not measured seperately. The cost of chasing and making good shall be included in the rates for the pipes.</p> <p><u>Reducing fittings:</u></p> <p>Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.</p> <p><u>Wire gratings:</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.</p> <p><u>Exposed concrete surfaces:</u></p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.</p> <p><u>Excavations:</u></p> <p>No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.</p> <p>'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.</p>				
Carried to Collection			R	
Section No. 4				
Bill No. 15				
Plumbing And Drainage (provisional)				

	Unit	Quantity	Rate	Amount
<p><u>Laying, backfilling, bedding, etc of pipes:</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches). Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes)</p> <p>Unless otherwise described bedding of rigid pipes shall be class B bedding.</p> <p><u>Flush pans:</u></p> <p>Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc:</u></p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.</p> <p>Prices for sinks are to include for preparing the worktop to receive the fitting and for securely fixing sinks to worktops using the clips provided. The Contractor is to provide worktop manufacturers with details of cut outs ensure that the cut openings are sufficiently accurate to provide proper engagement for these clips.</p> <p><u>Waste unions:</u></p> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.</p>				
<p>Carried to Collection</p> <p>Section No. 4</p> <p>Bill No. 15</p> <p>Plumbing And Drainage (provisional)</p>			R	

		Unit	Quantity	Rate	Amount
<u>General:</u>					
All screw and bolt fixings for sanitary ware are to be stainless steel or chromium plate on brass.					
Prices for sanitary fittings are to include for the application of white anti-fungal silicone sealant between the fittings and abutting wall and floor finishes, vanity tops, bathroom fittings, etc.					
<u>RAINWATER DISPOSAL</u>					
<u>0.60mm Thick Approved Ogee seamless aluminium watertight gutters and rainwater accessories, with factory coated finish (colour to match roof sheeting to approval), installed complete as per manufacturers specifications and recommendations:</u>					
1	150 x 100mm Ogee seamless aluminium eaves gutters, complete with 32 x 325mm brackets at 1000mm centres, including splash plate.	m	166		
	MO 160 OW 6				
2	Extra over eaves gutter for stopped end.	No	20		
	MO 18 OW 2				
3	Extra over eaves gutter for angle.	No	6		
	MO 6				
4	Extra over 150 x 100mm eaves gutter for outlet for 100 x 75mm downpipes.	No	15		
	MO 14 OW 1				
5	100 x 75mm Rectangular aluminium rainwater downpipes, fixed to walls with holderbats at 1000mm centres.	m	60		
	MO 56 OW 4				
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		Unit	Quantity	Rate	Amount
6	Extra over 100 x 75mm rectangular rainwater pipe for shoe.	No	15		
	MO 14 OW 1				
7	Extra over rainwater pipe for eaves or plinth offset 600mm projection.	No	15		
	MO 14 OW 1				
	<u>SANITARY FITTINGS</u>				
	<u>Approved AISI grade 304 (V2A) 0.6mm stainless steel top mount sinks with drainer:</u>				
8	K200 45-S 86/50 1.0 rev top mounting type stainless steel single bowl sink and drainer, size 860 x 500mm SEB with one end bowl size 350 x 400 x 160mm deep, set on cupboard fitting (cupboard elsewhere), including cutting one taphole, 35mm waste, 3.5"/90mm waste strainer with automatic waste fitting accessories and mounting set, complete. (G-315525D1).	No	2		
	MO 2				
	<u>Approved grade 430 (17/0) stainless steel wash troughs, etc:</u>				
9	ET102' economy type fabricated double wash trough size 1030 x 430mm with 348mm deep trough with sloping front and wash ridges with fixing lugs, seven times plugged and screwed to wall with and including bolts, wastes, plugs, chains, etc. complete.	No	1		
	MO 1				
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
	<u>Approved grade 304 (18/10) stainless steel vandal proof fittings:</u>				
10	1.2mm Grade 304 18/10 stainless steel SAPX597 wall and floor mounted shrouded maximum security wc pan (Code: 2540164), size 395 x 550 x 445mm high with external flange and integral stainless steel 100 "P" trap and back entry 38mm flush pipe inlet, bolted to wall and floor with anchor bolts, compliant with SABS 1733:2002, fitted to existing water supply.	No	2		
	MO 2				
11	1.2mm Grade 304 18/10 stainless steel SAPSDF combination wash hand basin & drinking fountain (Code: 2520011), size 370 x 125 x 490mm high with 40mm concealed waste outlet, unit recessed 125mm into wall and built into wall complete and fitted to existing water supply.	No	2		
	MO 2				
	<u>Approved vitreous china wash hand basins :</u>				
12	400 x 320 x 170mm 'Welcome' (709000WH) or equally approved white small round wall hung washbasin, with one pre-punched tap hole on right hand side of the basin and intergrated overflow, including wall fixing set mounted to brickwall with required fixing material as per manufacturer and sealed with approved sealant where basin meets the wall.	No	2		
	MO 2				
13	415 x 495 x 200mm 'Daisy' (702805WH) or equally approved white round wall hung washbasin, with three pre-punched tap holes and intergrated overflow, including wall fixing set and bolts, mounted to brickwall with required fixing material as per manufacturer and sealed with approved sealant where basin meets the wall.	No	4		
	MO 4				
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		Unit	Quantity	Rate	Amount
<u>Approved vitreous china WC suites :</u>					
14	'Welcome' or equally approved white close coupled toilet suite with top, dual flush capability with 3L flush, box rim including cistern, all fittings, pan, seat and cover, complete. (772664WH).	No	4		
	MO 4				
15	'Atlas Paraplegic' or equally approved raised CC white close coupled Low-Level Disabled toilet suite with low level raised height pan, side flush cistern and disabled flushing mechanism including all fittings, pan, seat and cover, complete. (PARSETLLBONOSBE).	No	2		
	MO 2				
<u>Approved vitreous china urinals :</u>					
16	'Flatback' or equally approved Top-entry urinal 300 x 315 x 450mm white vitreous china wall mounted, spreader and fittings included, compatible with an exposed urinal flush valve (elsewhere measured), connected to waste and fixed to brickwall, complete. (705429WH).	No	0		
17	White vitreous china wall mounted urinal division, size 400 x 700mm high, including approved fasterning material and fixed to brickwork.	No	0		
<u>WASTE UNIONS ETC</u>					
<u>Waste unions, etc:</u>					
18	Slotted basin waste with flanged back nut and washer, plug with stirrup, chain and stay, 62mm diameter flange, 80mm long shank, 1 1/4 BSP male iron connection end. (301/N).	No	2		
	MO 2				
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		Unit	Quantity	Rate	Amount
<u>TAPS, VALVES, ETC</u>					
<u>Stopcocks, Stoptaps, Gate valves, Check valves, Strainers, etc:</u>					
25	15 x 10mm Code 232-10/N Chrome plated angle regulating valve with durable ABS handle, DZR body, flow regulating spindle type headpart G1/2 x G1/2 BSP connections, angle valve adaptors as necessary, to basins and sink.	No	10		
	MO 10				
26	15mm Rough brass CxC 'Copcal' capillary type underwall stoptap (code 133-15), in line for supply to cisterns.	No	6		
	MO 6				
27	15mm Chrome plated fullway ballcock with plastic coated plated steel lever handle.	No	1		
	MO 1				
28	22mm Chrome plated fullway ballcock with plastic coated plated steel lever handle.	No	1		
	MO 1				
29	15mm Bronze gate type isolating valve c/w aluminium handle including insulation	No	2		
	MO 2				
30	22mm Bronze gate type isolating valve c/w aluminium handle including insulation	No	2		
	MO 2				
31	22mm Soft Resilient seat type Non return valve	No	2		
	MO 2				
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
	<u>Urinal flushvalves :</u>				
37	20mm Chrome plated exposed urinal flushvalve (Non-hold open feature), with 'Ball O Stop control inlet, wall flange, additional screw and piston for large bowl and stall urinals. 3/4BSP female iron connection end. Recommended optimum design pressures: inlet flow pressure 30 - 500kPa: Maximum system pressure 600kPa. (FJ6-000/N).	No	0		
38	Urinal flush pipe, offset, for junior flushmaster urinal flushvalves. 25.4mm diameter inlet adaptor (to be checked), 15mm diameter outlet x 215mm long. 27mm centreline offset. (FJT5-5/N).	No	0		
	<u>SANITARY PLUMBING</u>				
	<u>uPVC (SANS 967) pipes:</u>				
39	40mm Pipes.	m	12		
	MO 12				
40	40mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	5		
	MO 5				
41	50mm Pipes.	m	6		
	MO 6				
42	50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	10		
	MO 10				
43	110mm Pipes	m	16		
	MO 16				
44	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	18		
	MO 18				
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		Unit	Quantity	Rate	Amount
45	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	15		
	MO 15				
46	110mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	m	10		
	MO 10				
	<u>Extra over uPVC pipes for fittings (SANS 967):</u>				
47	40mm Bend.	No	6		
	MO 6				
48	40mm Access bend.	No	6		
	MO 6				
49	40mm Junction.	No	4		
	MO 4				
50	50mm Reducer.	No	2		
	MO 2				
51	50mm Bend.	No	2		
	MO 2				
52	50mm Access bend.	No	2		
	MO 2				
53	50mm Junction.	No	2		
	MO 2				
54	50mm Access junction.	No	1		
	MO 1				
55	110mm Reducer.	No	8		
	MO 8				
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		Unit	Quantity	Rate	Amount
56	110mm Bend.	No	8		
	MO 8				
57	110mm Access bend.	No	8		
	MO 8				
58	110mm Junction.	No	4		
	MO 4				
59	110mm Access junction.	No	4		
	MO 4				
60	110mm Access reducing junction.	No	1		
	MO 1				
61	110mm Pan connector	No	8		
	MO 8				
62	110mm Two-way' vent valve.	No	8		
	MO 8				
	<u>Gulleys :</u>				
63	Precast concrete dished gulley surround including 160mm 'P' trap PVC gulley head and grating, complete, not exceeding 1000mm deep.	No	2		
	MO 2				
	<u>Sundries:</u>				
64	Testing waste pipe systems, complete.	Item			
	It 1				
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		Unit	Quantity	Rate	Amount
<u>WATER SUPPLIES</u>					
<u>Polycop' polypropylene pipes with and including compression fittings:</u>					
65	15mm Pipes laid in trenches not exceeding 2m deep, including excavation in all materials, bedding, backfilling, compaction and disposing of surplus excavated material.	m	6		
	MO 6				
66	22mm Pipes laid in trenches not exceeding 2m deep, including excavation in all materials, bedding, backfilling, compaction and disposing of surplus excavated material.	m	8		
	MO 8				
67	15mm Pipes.	m	9		
	MO 9				
68	22mm Pipes.	m	12		
	MO 12				
<u>SABS 460 Class 2 copper pipes :</u>					
69	15mm Pipes	m	27		
	MO 27				
70	22mm Pipes	m	70		
	MO 70				
<u>Extra over Class 2 copper pipes for capillary fittings</u>					
71	15mm Fittings	No	32		
	MO 32				
72	22mm Fittings	No	48		
	MO 48				
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		Unit	Quantity	Rate	Amount
78	4,5kg Carbon dioxide CO2 hand held fire extinguisher including mounting bracket and backboard plugged and screwed to wall. MO 1 <u>Fire Hose Reels to SANS 10400-T :</u>	No	1		
79	Fire hose reel complete with 30m rubber hose, pressure gauge, chromium plated stopcock/ball valve, fire hose reel combined nozzle stop cock shut-off nozzle and wall bracket mounted to wall as per manufacturers instructions. MO 4 <u>WATER SUPPLIES TO FIRE APPLIANCES</u> <u>SABS62 Medium Grade Hot Dipped Galvanised Steel Pipes :</u>	No	4		
80	25DN GMS pipes. MO 65	m	65		
81	32DN GMS pipes. MO 20	m	20		
82	25DN GMS Pipes laid underground with and including two layers of Densowrap or equally approved up to 100mm above floor level. MO 3	m	3		
83	40DN GMS Pipes laid underground with and including two layers of Densowrap or equally approved up to 100mm above floor level. MO 6 <u>Extra over SABS62 Medium Grade Hot Dipped Galvanised Steel pipes for compression fittings:</u>	m	6		
84	25DN Elbow. MO 16	No	16		
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		Unit	Quantity	Rate	Amount
85	32DN Elbow.	No	5		
	MO 5				
86	40DN Elbow.	No	2		
	MO 2				
87	25DN Equal Tee	No	1		
	MO 1				
88	32DN Equal Tee	No	1		
	MO 1				
89	25DN Union connector	No	8		
	MO 8				
90	32DN Union connector	No	2		
	MO 2				
91	40DN Union connector	No	1		
	MO 1				
92	25DN Coupling reducer	No	4		
	MO 4				
93	32DN Coupling reducer	No	2		
	MO 2				
94	40DN Coupling reducer	No	1		
	MO 1				
	<u>Testing</u>				
95	Testing fire water pipe system, complete	Item			
	It 1				
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		Unit	Quantity	Rate	Amount
<u>WATER STORAGE TANKS, ETC</u>					
<u>SABS and ECO approved Polyethylene (LLDPE)</u> <u>drinking water tanks with 10 year guarantee :</u>					
96	5 000 Litre Slimline Cloudy Grey circular water tank, complete with 15mm plastic tap, clip on lid, outlet and overflow, mounted on top of concrete plinth base and tied down as instructed by manufacturer (concrete base elsewhere measured).	No	3		
	MO 3				
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<u>GLAZING</u>												
<table><tr><td><u>Key:</u></td><td><u>Location Description:</u></td></tr><tr><td>MO</td><td>Magistrates Offices</td></tr><tr><td>OW</td><td>Outdoor Covered Wait</td></tr><tr><td>It</td><td>Item</td></tr></table>					<u>Key:</u>	<u>Location Description:</u>	MO	Magistrates Offices	OW	Outdoor Covered Wait	It	Item
<u>Key:</u>	<u>Location Description:</u>											
MO	Magistrates Offices											
OW	Outdoor Covered Wait											
It	Item											
<u>PREAMBLES</u>												
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.												
<u>SUPPLEMENTARY PREAMBLES</u>												
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.												
Safety glazing to comply with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.												
<u>GLAZING TO STEEL WITH PUTTY AND SCREWED-ON BEADS (BEADS ELSEWHERE)</u>												
<u>6,35mm 'GSA Smartglass Intruderprufe' or equally approved normal strength (N.S.) Clear laminated safety glass :</u>												
1	Panes exceeding 0,1m and not exceeding 0,5m	m²	2									
	MO 2											
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Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.												
<u>PREPARATORY WORK FOR UNPAINTED SURFACES</u>												
All work to be executed in strict accordance with the specifications and instructions of the manufacturer.												
Primers and first coats may be thinned in accordance with the various paint specifications to aid the absorption of the paint.												
All surfaces must be sound, clean and have a moisture content of less than 8% for walls generally, 3% for slabs/screeds, and 14% for wood etc, when measured with a Doser hygrometer or equivalent.												
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		Unit	Quantity	Rate	Amount
<u>ON NEW INTERNAL FLOATED PLASTER SURFACES</u>					
<u>'Wall & All' or equally approved paint to interior new cement plaster, surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Wall & All (WAA 1) with 2 hours drying time between coats, for a maintenance cycle of 12 years in a C5 - coastal/marine environment, for interior use :</u>					
1	Walls and beams.	m ²	1 790		
	MO 1790				
2	Soffits of slabs.	m ²	39		
	MO 39				
<u>ON NEW EXTERNAL FLOATED PLASTER SURFACES</u>					
<u>'Wall & All' or equally approved paint to exterior new cement plaster, surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Wall & All (WAA 1) with 2 hours drying time between coats, for a maintenance cycle of 12 years in a C5 - coastal/marine environment, for exterior use :</u>					
3	Walls and beams.	m ²	1 210		
	MO 1210				
4	Walls to top of existing yard walls	m ²	28		
	MO 28				
5	Boundary walls	m ²	138		
	MO 138				
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		Unit	Quantity	Rate	Amount
6	Walls to rainwater tank plinths.	m ²	13		
	MO 13				
7	Walls to tap stand piers	m ²	2		
	MO 2				
	<u>ON NEW FAIR FACED BRICKWORK</u>				
	<u>Prepare surfaces and remove all loose material, builder's plaster etc with weak spirits of salts (or any other suitable means), wash, dry and apply three coats of Approved Brick / Stone sealer':</u>				
8	On facebrick walls externally. (Provisional).	m ²	55		
	OW 55				
	<u>ON NEW FIBRE-CEMENT / PLASTERBOARD SURFACES</u>				
	<u>'Wall & All' or equally approved paint to new fibre cement, surface to be dry, sound and free of dirt and loose particles. Wipe down with a damp cloth and allow to dry completely. Prime with one coat Universal undercoat with an overcoating time of 1 hour and finish with two coats Wall & All (WAA 1) with 2 hours drying time between coats, for a maintenance cycle of 12 years in a C5 - coastal/marine environment.</u>				
9	On ceilings and cornices,	m ²	53		
	MO 53				
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		Unit	Quantity	Rate	Amount
	<u>'Velvagro' or equally approved polyurethane enamel paint to new fibre-cement, surface to be dry, sound and clean. Prime with one coat Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Velvagro Polyurethane Enamel (VLO) with 2 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment, for interior/exterior use :</u>				
10	Fascias and barge boards not exceeding 300mm girth , including priming metal jointing strips.	m	198		
	MO 192 OW 6				
11	Internal window cills not exceeding 300mm girth.	m	57		
	MO 57				
	<u>ON NEW METAL SURFACES</u>				
	<u>Polyurethane enamel paint to new metal, surface to be dry, sound and clean. Clean and degrease with Aquasolve Degreaser GR1, rinse and prime with one coat Galvogrip Metal Primer, one coat Merit Universal Undercoat and finish with two coats Polyurethane Enamel (VLO) with 2 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment, for interior/exterior use to galvanised steel :</u>				
12	Columns. (Provisional).	m ²	10		
	OW 10				
13	Members of exposed sloping roof members, rafter beams, purlins, bracing, etc. (Provisional)	m ²	22		
	OW 22				
14	Record room doors and frames, etc.	m ²	0		
15	Rails, bars, pipes, etc not exceeding 300mm girth.	m	31		
	MO 31				
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		Unit	Quantity	Rate	Amount
16	Rails, bars, pipes, etc not exceeding 300mm girth to fire protection pipes.	m	85		
	MO 85 <u>ON NEW WOOD SURFACES</u> <u>Two coats oil wood primer</u>				
17	Backs of frames, linings, etc not exceeding 300mm	m	223		
	MO 223 <u>Prepare surfaces, light sand, clean and apply two coats approved carbolinium timber preservative, with light sand between coats :</u>				
18	Roof timbers at eaves and verges	m ²	12		
	MO 12 <u>Polyurethane enamel paint to new wood, surface to be dry, sound and clean, wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK2) and apply one coat of Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats Satin Polyurethane enamel paint (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment, for interior / exterior use to new wood :</u>				
19	Interior / Exterior doors.	m ²	58		
	MO 58				
20	Door frames, etc.	m ²	64		
	MO 64				
21	Exposed roof timbers and at eaves and verges.	m ²	108		
	MO 108				
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		Unit	Quantity	Rate	Amount
22	Skirtings, rails, etc not exceeding 300mm girth.	m	397		
	MO 397 <u>Prepare and apply three coats superior quality polyurethane suede varnish</u>				
23	Parquet wood flooring.	m ²	152		
	MO 152				
24	Skirtings, rails, etc not exceeding 300mm girth	m	193		
	MO 193 <u>ON EXISTING EXTERNAL FLOATED PLASTER SURFACES</u> <u>Prepare surfaces and apply Wall & All' or equally approved paint to exterior existing plaster and painted surfaces, with two coats Wall & All (WAA 1) with 2 hours drying time between coats, for a maintenance cycle of 12 years in a C5 - coastal/marine environment, for exterior use :</u>				
25	Boundary wall and piers.	m ²	160		
	MO 160				
26	Retaining walls.	m ²	100		
	MO 100 <u>ON EXISTING METAL SURFACES</u> <u>Prepare surfaces and spot priming bare metal surfaces, one coat alkyd based universal undercoat and two coats Polyurethane Enamel (VLO) with 2 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment, for interior/exterior use to steel :</u>				
27	Door frames	m ²	4		
	MO 4				
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SECTION NO 5

ELECTRICAL WORK (PROVISIONAL)

			Amount
<p><u>SECTION NO. 5</u> <u>ELECTRICAL WORK (PROVISIONAL)</u> <u>BILL NO. 1</u> <u>LOW VOLTAGE RETICULATION AND DISTRIBUTION</u></p>			
<p><u>PREAMBLES</u></p>			
<p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p>			
<p><u>SUPPLEMENTARY PREAMBLES</u></p>			
<p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p>			
<p>The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:</p>			
<p>Section A: Preamble to Standard Specifications</p>			
<p>Section B: Installation Specifications</p>			
<p>Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.</p>			
<p>Section No. 5 Bill No. 1 Low Voltage Reticulation And Distribution</p>	<p>Carried to Collection</p>	<p>R</p>	

	Unit	Quantity	Rate	Amount
<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in their unit rates.</p> <p>Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p> <p><u>Compliance, Preliminary & General Items, (Contractual Items, Fixed Cost Items, Time Related Items & General Items), etc.</u></p> <p>The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub-contract to the Main Contractor. There is no separate Preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries & General and Compliance items applicable to this scope of works, including but not limited to :</p> <p>1) Provision of a Sub-Contract Construction Guarantee, in terms of the Sub-contract Agreement.</p> <p>2) Provision of an Advanced Payment Guarantee, in the amount as is required for the procurement of any materials/equipment to facilitate the completion of the works.</p> <p>3) Provision of Insurances such as Contract Works, Special, Supplementary, Public Liability Insurances, as deemed necessary in the contract, etc.</p> <p>4) Allowance for compliance with Construction Regulations, OH&S Specification by the Employer/Agent & the OH&S Act.</p>				
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Low Voltage Reticulation And Distribution				

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	Unit	Quantity	Rate	Amount
8) Training of Clients representative(s) at end of defects liability period				
9) Provision of record drawings				
10) Provision of Operating and Maintenance manuals				
<u>LOW VOLTAGE RETICULATION AND DISTRIBUTION</u>				
<u>Cable Ladder</u>				
Supply, delivery and installation of cable ladder, complete with all fastening materials				
<u>Heavy duty, hot-dipped galvanised cable ladder with 800 mm wide x 2 mm thick cross rung, 76 mm high x 2 mm thick side rail, rung spacing of 300 mm, with trapeze brackets</u>				
1 Cable Ladder	m			RATE ONLY
2 Horizontal Bend	No			RATE ONLY
3 Internal / External Bend	No			RATE ONLY
4 Horizontal Tee	No			RATE ONLY
5 4-Way Crossover	No			RATE ONLY
6 Splice	No			RATE ONLY
7 Width Reducing Splice	No			RATE ONLY
8 Support / Suspension / Trapeze Bracket	No			RATE ONLY
Carried to Collection			R	
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Low Voltage Reticulation And Distribution				

		Unit	Quantity	Rate	Amount
19	Internal / External Bend	No			RATE ONLY
20	Horizontal Tee	No			RATE ONLY
21	4-Way Crossover	No			RATE ONLY
22	Splice	No			RATE ONLY
23	Width Reducing Splice	No			RATE ONLY
24	Support / Suspension / Trapeze Bracket	No			RATE ONLY
<u>Medium duty, hot-dipped galvanised cable tray, 304 mm wide x 1.6 mm thick, with trapeze brackets</u>					
25	Cable Ladder	m	65		
26	Horizontal Bend	No	4		
27	Internal / External Bend	No	4		
28	Horizontal Tee	No	4		
29	4-Way Crossover	No			RATE ONLY
30	Splice	No	22		
31	Width Reducing Splice	No			RATE ONLY
32	Support / Suspension / Trapeze Bracket	No	65		
Carried to Collection				R	
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Low Voltage Reticulation And Distribution					

		Unit	Quantity	Rate	Amount
<u>Low Volage (600/1000 V) Cables</u>					
<u>Supply, delivery and installation of PVC PVC SWA ECC PVC type cables, with stranded copper conductors and earth continuity conductors (Installation rate to include for installation in wireways, trays, ducts, trenches, etc. and for the provision of flameproof labels) (Excavations measured elsewhere)</u>					
33	240 mm ² x 1 core XLPE insulated PVC sheathed	m			RATE ONLY
34	120 mm ² x 4 core	m			RATE ONLY
35	95 mm ² x 4 core	m			RATE ONLY
36	70 mm ² x 4 core	m			RATE ONLY
37	50 mm ² x 4 core	m	170		
38	35 mm ² x 4 core	m	210		
39	25 mm ² x 4 core	m	95		
40	16 mm ² x 4 core	m			RATE ONLY
41	10 mm ² x 4 core	m			RATE ONLY
42	6 mm ² x 4 core	m	240		
43	10 mm ² x 2 core	m			RATE ONLY
Carried to Collection				R	
Section No. 5					
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Low Voltage Reticulation And Distribution					

		Unit	Quantity	Rate	Amount
<u>Low Volage (600/1000 V) Cable Terminations</u>					
<u>Supply, delivery and installation of cable terminations, including all fastening materials, glands, shrouds, lugs, insulating materials, etc.</u>					
44	240 mm ² x 1 core XLPE insulated PVC sheathed	No			RATE ONLY
45	120 mm ² x 4 core	No			RATE ONLY
46	95 mm ² x 4 core	No			RATE ONLY
47	70 mm ² x 4 core	No			RATE ONLY
48	50 mm ² x 4 core	No	4		
49	35 mm ² x 4 core	No	6		
50	25 mm ² x 4 core	No	2		
51	16 mm ² x 4 core	No			RATE ONLY
52	10 mm ² x 4 core	No			RATE ONLY
53	6 mm ² x 4 core	No	20		
54	10 mm ² x 2 core	No			RATE ONLY
Carried to Collection				R	
Section No. 5					
Bill No. 1					
Low Voltage Reticulation And Distribution					

		Unit	Quantity	Rate	Amount
<u>Low Volage (600/1000 V) Cable Joints</u>					
<u>Supply, delivery and installation of cable joints, including all joint capsules, lugs, shrouds, insulating materials and compounds, etc.</u>					
55	240 mm ² x 1 core XLPE insulated PVC sheathed	No			RATE ONLY
56	120 mm ² x 4 core	No			RATE ONLY
57	95 mm ² x 4 core	No			RATE ONLY
58	70 mm ² x 4 core	No			RATE ONLY
59	50 mm ² x 4 core	No			RATE ONLY
60	35 mm ² x 4 core	No			RATE ONLY
61	25 mm ² x 4 core	No			RATE ONLY
62	16 mm ² x 4 core	No			RATE ONLY
63	10 mm ² x 4 core	No			RATE ONLY
64	6 mm ² x 4 core	No			RATE ONLY
65	10 mm ² x 2 core	No			RATE ONLY
<u>Low Voltage Earthing</u>					
66	Allow for bonding of the electrical installation	Item			
Carried to Collection				R	
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Bill No. 1					
Low Voltage Reticulation And Distribution					

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		Unit	Quantity	Rate	Amount
77	Sub-electrical Distribution Board (SEDB-)	No			RATE ONLY
<u>TESTING AND COMMISSIONING</u>					
<u>Testing and Commissioning, etc. :</u>					
78	Testing and commissioning of the entire installation, complete and issue of COC's.	Item			
79	Provision of three sets of operating and maintenance manuals as required.	Item			
80	Provision of 'As-built' drawings, manuals, etc.	Item			
81	Housekeeping with coding and labelling of all plant and equipment and wiring, etc.	Item			
<u>SUNDRIES</u>					
<u>Sundries :</u>					
82	Workshop drawings and equipment schedule submittals for approval, as required, prior to ordering of equipment, etc	Item			
83	Training of staff on correct operation of equipment as required.	Item			
Carried to Collection				R	
Section No. 5					
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Low Voltage Reticulation And Distribution					

BILL NO. 1
LOW VOLTAGE RETICULATION AND DISTRIBUTION
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	Unit	Quantity	Rate	Amount
<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in their unit rates.</p> <p>Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p> <p><u>Compliance, Preliminary & General Items, (Contractual Items, Fixed Cost Items, Time Related Items & General Items), etc.</u></p> <p>The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub-contract to the Main Contractor. There is no separate Preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries & General and Compliance items applicable to this scope of works, including but not limited to :</p> <p>1) Provision of a Sub-Contract Construction Guarantee, in terms of the Sub-contract Agreement.</p> <p>2) Provision of an Advanced Payment Guarantee, in the amount as is required for the procurement of any materials/equipment to facilitate the completion of the works.</p> <p>3) Provision of Insurances such as Contract Works, Special, Supplementary, Public Liability Insurances, as deemed necessary in the contract, etc.</p> <p>4) Allowance for compliance with Construction Regulations, OH&S Specification by the Employer/Agent & the OH&S Act.</p>				
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Specialist Equipment				

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BILL NO. 2
SPECIALIST EQUIPMENT
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	Unit	Quantity	Rate	Amount
<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in their unit rates.</p> <p>Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p> <p><u>Compliance, Preliminary & General Items, (Contractual Items, Fixed Cost Items, Time Related Items & General Items), etc.</u></p> <p>The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub-contract to the Main Contractor. There is no separate Preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries & General and Compliance items applicable to this scope of works, including but not limited to :</p> <p>1) Provision of a Sub-Contract Construction Guarantee, in terms of the Sub-contract Agreement.</p> <p>2) Provision of an Advanced Payment Guarantee, in the amount as is required for the procurement of any materials/equipment to facilitate the completion of the works.</p> <p>3) Provision of Insurances such as Contract Works, Special, Supplementary, Public Liability Insurances, as deemed necessary in the contract, etc.</p> <p>4) Allowance for compliance with Construction Regulations, OH&S Specification by the Employer/Agent & the OH&S Act.</p>				
Carried to Collection			R	
Section No. 5				
Bill No. 3				
Electrical Equipment				

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		Unit	Quantity	Rate	Amount
<u>Light Switches and Occupancy Sensors</u>					
<u>Supply, delivery and installation of light switches and occupancy sensors, excluding outlet boxes, but including covers and surrounds, mounted to outlet boxes</u>					
6	One lever, one way switch	No	35		
7	One lever, two way switch	No	12		
8	Two lever, one way switch	No	14		
9	Three lever, one way switch	No			RATE ONLY
10	Four lever, one way switch	No			RATE ONLY
11	One lever, one way switch, waterproof	No	9		
12	One lever, one way switch, with dimmer control	No			RATE ONLY
13	Occupancy sensor, with passive infra-red and microwave motion sensing capabilities, suitable for mounting at 5 m height and with a minimum range of 10 metres	No	45		
<u>Luminaires</u>					
<u>Allow for the supply, delivery and installation of luminaires, either fixed to round conduit boxes cast into brickwork or conduit boxes supported to ceiling / roof structure or mounted in recessed ceiling grid, including all fixing materials and terminations as per the Project Specification</u>					
14	Type 1	No	18		
Carried to Collection				R	
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Electrical Equipment					

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		Unit	Quantity	Rate	Amount	
27	16 ampere, single, three pin, round earth pin, single pole (white)	No			RATE ONLY	
28	16 ampere, double, three pin, round earth pin, single pole (white)	No	34			
29	16 ampere, single, three pin, 0 degree shaved earth pin, single pole (red)	No			RATE ONLY	
30	16 ampere, double, three pin, 0 degree shaved earth pin, single pole (red)	No	9			
31	16 ampere, single, three pin, -45 degree shaved earth pin, single pole (blue)	No			RATE ONLY	
32	16 ampere, double, three pin, -45 degree shaved earth pin, single pole (blue)	No	15			
33	16 ampere, single, three pin, round earth pin, double pole (white)	No			RATE ONLY	
34	16 ampere, double, three pin, round earth pin, double pole (white)	No			RATE ONLY	
35	16 ampere, single, three pin, 0 degree shaved earth pin, double pole (red)	No			RATE ONLY	
36	16 ampere, double, three pin, 0 degree shaved earth pin, double pole (red)	No			RATE ONLY	
37	16 ampere, single, three pin, -45 degree shaved earth pin, double pole (blue)	No			RATE ONLY	
38	16 ampere, double, three pin, -45 degree shaved earth pin, double pole (blue)	No			RATE ONLY	
Carried to Collection				R		
Section No. 5						
Bill No. 3						
Electrical Equipment						
220						

		Unit	Quantity	Rate	Amount
39	16 ampere, single, euro, round earth pin, single pole (white)	No			RATE ONLY
40	16 ampere, double, euro, round earth pin, single pole (white)	No			RATE ONLY
41	16 ampere, double, combo three pin / euro, round earth pin, single pole (white)	No	38		
42	16 ampere, double, combo three pin / euro, 0 degree shaved earth pin, single pole (red)	No			RATE ONLY
43	16 ampere, double, combo three pin / euro / euro, round earth pin, single pole (white)	No			RATE ONLY
44	16 ampere, double, combo three pin / euro / euro, 0 degree shaved earth pin, single pole (red)	No			RATE ONLY
45	16 ampere, double, combo three pin / USB, USB-C, round earth pin, single pole (white)	No	22		
46	16 ampere, single, four pin with round earth pin, single pole (white)	No			RATE ONLY
47	16 ampere, single, five pin with round earth pin, single pole (white)	No			RATE ONLY
48	16 ampere, single, three pin, round earth pin, single pole, industrial (white)	No			RATE ONLY
49	16 ampere, double, three pin, round earth pin, single pole, industrial (white)	No			RATE ONLY
Carried to Collection				R	
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Electrical Equipment					

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		Unit	Quantity	Rate	Amount	
69	Single pole, 5 kA, Curve 1, 15 - 20 A	No			RATE ONLY	
70	Single pole, 5 kA, Curve 2, 15 - 20 A	No			RATE ONLY	
71	Single pole & neutral, 5 kA, Curve 1, 0 - 10 A	No			RATE ONLY	
72	Single pole & neutral, 5 kA, Curve 2, 0 - 10 A	No			RATE ONLY	
73	Single pole & neutral, 5 kA, Curve 1, 15 - 20 A	No			RATE ONLY	
74	Single pole & neutral, 5 kA, Curve 2, 15 - 20 A	No			RATE ONLY	
75	Single pole & neutral, 5 kA, Curve 1, 25 - 30 A	No			RATE ONLY	
76	Single pole & neutral, 5 kA, Curve 2, 25 - 30 A	No			RATE ONLY	
77	Double pole, 5 kA, Curve 1, 0 - 10 A	No			RATE ONLY	
78	Double pole, 5 kA, Curve 2, 0 - 10 A	No			RATE ONLY	
79	Double pole, 5 kA, Curve 1, 15 - 20 A	No			RATE ONLY	
80	Double pole, 5 kA, Curve 2, 15 - 20 A	No			RATE ONLY	
81	Double pole, 5 kA, Curve 1, 25 - 30 A	No			RATE ONLY	
82	Double pole, 5 kA, Curve 2, 25 - 30 A	No			RATE ONLY	
83	Triple pole, 5 kA, Curve 1, 0 - 10 A	No			RATE ONLY	
84	Triple pole, 5 kA, Curve 2, 0 - 10 A	No			RATE ONLY	
Carried to Collection				R		
Section No. 5						
Bill No. 3						
Electrical Equipment						

		Unit	Quantity	Rate	Amount
85	Triple pole, 5 kA, Curve 1, 15 - 20 A	No			RATE ONLY
86	Triple pole, 5 kA, Curve 2, 15 - 20 A	No			RATE ONLY
87	Triple pole, 5 kA, Curve 1, 25 - 30 A	No			RATE ONLY
88	Triple pole, 5 kA, Curve 2, 25 - 30 A	No			RATE ONLY
89	Triple pole, 5 kA, Curve 1, 40 - 60 A	No			RATE ONLY
90	Triple pole, 5 kA, Curve 2, 40 - 60 A	No			RATE ONLY
91	Triple pole, 5 kA, Curve 1, 80 - 100 A	No			RATE ONLY
92	Triple pole, 5 kA, Curve 2, 80 - 100 A	No			RATE ONLY
93	Triple pole, 5 kA, Curve 2, 125 - 150 A	No			RATE ONLY
94	Triple pole, 5 kA, Curve 1, 125 - 150 A	No			RATE ONLY
<u>Moulded Case Switch Disconnectors</u>					
<u>Supply, delivery and installation of moulded case switch disconnectors, including wiring to busbars</u>					
95	Single pole, 5 kA, 0 - 30 A	No			RATE ONLY
96	Single pole, 5 kA, 40 - 60 A	No			RATE ONLY
97	Single pole, 5 kA, 80 - 125 A	No			RATE ONLY
Carried to Collection				R	
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Electrical Equipment					

		Unit	Quantity	Rate	Amount
98	Double pole, 5 kA, 0 - 30 A	No			RATE ONLY
99	Double pole, 5 kA, 40 - 60 A	No			RATE ONLY
100	Double pole, 5 kA, 80 - 125 A	No			RATE ONLY
101	Triple pole, 5 kA, 0 - 30 A	No			RATE ONLY
102	Triple pole, 5 kA, 40 - 60 A	No			RATE ONLY
103	Triple pole, 5 kA, 80 - 125 A	No			RATE ONLY
104	Triple pole, 5 kA, 150 - 200 A	No			RATE ONLY
<u>Switched Isolators</u>					
<u>Supply, delivery and installation of isolators, excluding outlet boxes, but including covers and surrounds, mounted to outlet boxes</u>					
105	30 A, single pole, neutral & earth	No	8		
106	45 A, single pole, neutral & earth	No			RATE ONLY
107	60 A, single pole, neutral & earth	No	5		
108	60 A, triple pole, neutral & earth	No			RATE ONLY
<u>Supply, delivery and installation of switched interlock type isolators, excluding outlet boxes, but including base and "male" and "female" adaptors</u>					
109	16 A, triple pole, neutral & earth	No	7		
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Electrical Equipment					

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		Unit	Quantity	Rate	Amount
<u>PVC SANS Approved Conduit Accessories</u>					
<u>Supply, delivery and installation of conduit accessories on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, mounting screws, cover screws, etc.</u>					
120	50mm Diameter conduit box for 20mm conduit	No	627		
121	50mm Diameter conduit extension box for 20mm conduit	No	340		
122	50mm Diameter conduit box for 25mm conduit	No	282		
123	100mm x 50mm x 50mm Conduit box	No	70		
124	100mm x 100mm x 50mm Conduit box	No	276		
125	Blank standard cover for 50mm diameter conduit box	No	627		
126	Blank over-sized cover for 50mm diameter conduit box	No	63		
127	Blank cover for 100mm x 50mm conduit box	No	7		
128	Blank cover for 100mm x 100mm conduit box	No	28		
<u>Galvanised SANS Approved Conduit</u>					
<u>Supply, delivery and installation of conduit on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, couplings, saddles, etc.</u>					
129	20mm Diameter conduit	m	2 832		
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
130	25mm Diameter conduit	m	3 306		
131	32mm Diameter conduit	m	400		
132	50mm Diameter conduit	m	175		
133	Extra over for painting conduit (Colour to be later specified)	m	336		
<u>Galvanised SANS Approved Conduit Accessories</u>					
<u>Supply, delivery and installation of conduit accessories on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, mounting screws, cover screws, etc.</u>					
134	100 mm x 50 mm x 50 mm conduit box	No	70		
135	100 mm x 100 mm x 50 mm conduit box	No	276		
136	50 mm diameter conduit box for 20 mm conduit	No	627		
137	50 mm diameter conduit box for 25 mm conduit	No	282		
138	2.5m x 20mm diameter sprague, fitted with 50mm conduit box on one end and 50mm round lid on other end, with bushes and locknuts.	No	12		
139	Blank cover for 100 mm x 50 mm conduit box	No	28		
140	Blank cover for 100 mm x 100 mm conduit box	No	63		
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
<u>Wiring Mesh and Accessories</u>					
<u>Supply, delivery and installation of galvanised wiring mesh, including all fixing materials, size 150mm x 50mm</u>					
217	Wiring mesh	m	145		
218	Horizontal bend	No	12		
219	Internal / External Bend	No	6		
220	Horizontal Tee	No	2		
221	4-way Crossover	No	2		
222	Splice	No	145		
223	Holding Down Bracket, including fasteners	No	6		
<u>Power Poles</u>					
<u>Supply, delivery and installation of power poles, as specified in Project Specification (outlets measured elsewhere)</u>					
224	Columns (3.5 m)	No			RATE ONLY
225	Columns (4.5 m)	No			RATE ONLY
<u>Polyester Draw-tape</u>					
226	2 mm ² draw-tape	m			RATE ONLY
Carried to Collection				R	
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Bill No. 3					
Electrical Equipment					

		Unit	Quantity	Rate	Amount
<u>Miscellaneous</u>					
<u>Provide electrical connection to the following equipment (materials measured elsewhere)</u>					
227	Single phase equipment	No	13		
228	Three phase equipment	No	23		
<u>Allow for the following miscellaneous items, namely:</u>					
229	Relays for Automated Doors / Status Panels	No	2		
<u>TESTING AND COMMISSIONING</u>					
<u>Testing and Commissioning, etc. :</u>					
230	Testing and commissioning of the entire installation, complete and issue of COC's	Item			
231	Provision of three sets of operating and maintenance manuals as required.	Item			
232	Provision of 'As-built' drawings, manuals, etc.	Item			
233	Housekeeping with coding and labelling of all plant and equipment and wiring, etc.	Item			
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
<u>SUNDRIES</u>					
<u>Sundries :</u>					
234	Workshop drawings and equipment schedule submittals for approval, as required, prior to ordering of equipment, etc	Item			
235	Training of staff on correct operation of equipment as required.	Item			
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ELECTRICAL EQUIPMENT
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	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 5</u></p> <p><u>ELECTRICAL WORK (PROVISIONAL)</u></p> <p><u>BILL NO. 4</u></p> <p><u>EXCAVATIONS AND RELATED BUILDERS WORKS</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p>The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:</p> <p>Section A: Preamble to Standard Specifications</p> <p>Section B: Installation Specifications</p> <p>Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.</p>				
Carried to Collection			R	
Section No. 5				
Bill No. 4				
Excavations And Related Builders Works				

	Unit	Quantity	Rate	Amount
<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in their unit rates.</p> <p>Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p> <p><u>Compliance, Preliminary & General Items, (Contractual Items, Fixed Cost Items, Time Related Items & General Items), etc.</u></p> <p>The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub-contract to the Main Contractor. There is no separate Preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries & General and Compliance items applicable to this scope of works, including but not limited to :</p> <p>1) Provision of a Sub-Contract Construction Guarantee, in terms of the Sub-contract Agreement.</p> <p>2) Provision of an Advanced Payment Guarantee, in the amount as is required for the procurement of any materials/equipment to facilitate the completion of the works.</p> <p>3) Provision of Insurances such as Contract Works, Special, Supplementary, Public Liability Insurances, as deemed necessary in the contract, etc.</p> <p>4) Allowance for compliance with Construction Regulations, OH&S Specification by the Employer/Agent & the OH&S Act.</p>				
Carried to Collection			R	
Section No. 5				
Bill No. 4				
Excavations And Related Builders Works				

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	Unit	Quantity	Rate	Amount
8) Training of Clients representative(s) at end of defects liability period				
9) Provision of record drawings				
10) Provision of Operating and Maintenance manuals				
<u>EXCAVATIONS AND RELATED BUILDERS WORKS</u>				
<u>Excavations for Trenches</u>				
<u>Excavate for cable and duct trenches, manholes and / or plinths, including temporary support of sides, keeping excavation dry, backfilling and compaction (laying of ducts and / or cables in trenches, construction of manholes and / or plinths measured elsewhere)</u>				
1 In earth or pickable ground	m ³	69		
2 In soft rock, requiring the use of pneumatic tools and aids	m ³	2		
3 In hard rock, requiring the use of dynamite or similar aids	m ³	1		
4 Allow for the importing of suitable soil (sabunga) to be used as either a bedding layer and / or a backfilling layer (bedding to be in layer of 75 mm and backfilling in layers of 150 mm)	m ³	55		
5 Allow for the sorting of all excavated material so as to re-use all soil and soft rocks less than 50 mm diameter	m ³	18		
6 Allow for the backfilling of the trenches, using either the imported soil and / or the selected (excavated) material and the compaction of the backfilling in layers of 150 mm to 95% compaction	m ³	73		
Carried to Collection			R	
Section No. 5				
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Excavations And Related Builders Works				

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EXCAVATIONS AND RELATED BUILDERS WORKS
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	Unit	Quantity	Rate	Amount
<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in their unit rates.</p> <p>Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p> <p><u>Compliance, Preliminary & General Items, (Contractual Items, Fixed Cost Items, Time Related Items & General Items), etc.</u></p> <p>The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub-contract to the Main Contractor. There is no separate Preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries & General and Compliance items applicable to this scope of works, including but not limited to :</p> <p>1) Provision of a Sub-Contract Construction Guarantee, in terms of the Sub-contract Agreement.</p> <p>2) Provision of an Advanced Payment Guarantee, in the amount as is required for the procurement of any materials/equipment to facilitate the completion of the works.</p> <p>3) Provision of Insurances such as Contract Works, Special, Supplementary, Public Liability Insurances, as deemed necessary in the contract, etc.</p> <p>4) Allowance for compliance with Construction Regulations, OH&S Specification by the Employer/Agent & the OH&S Act.</p>				
Carried to Collection			R	
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Public Address And Evacuation System				

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	Unit	Quantity	Rate	Amount
8) Training of Clients representative(s) at end of defects liability period				
9) Provision of record drawings				
10) Provision of Operating and Maintenance manuals				
<u>PUBLIC ADDRESS SYSTEM AND RECORDING SYSTEMS</u>				
<u>Public Address / Evacuation System</u>				
1 Allow for the supply, installation, testing and commissioning of a stand-alone music system including a compact disc player, amplifier and evacuation loop system as per the specification	Sum	1		
<u>Ceiling-mounted Speakers</u>				
2 Allow for the supply, installation, programming, testing and commissioning of ceiling-mounted speakers (Fire Rated) back-box as per the specification.	No	8		
3 Allow for the supply, installation, programming, testing and commissioning of surface-mounted horn type speakers inclusive of connections and accessories	No	1		
<u>Interconnecting Cable</u>				
4 Allow for the supply, installation, testing and commissioning of all necessary interconnecting cables (PH 30) (conduit and conduit accessories provided by Electrical Sub-contractor)	m	142		
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Public Address And Evacuation System				

		Unit	Quantity	Rate	Amount
<u>Recording System / Conference System</u>					
5	Allow for the supply, installation, testing and commissioning of the recording / conference Master Control Unit, MP3 recorder, (34 units per MU up to 246 units total as per the specification	Sum	1		
6	Allow for the supply, installation, testing and commissioning of the chairman unit for the above	No	1		
7	Allow for the supply, installation, testing and commissioning of the delegate units for the above	No	15		
8	Allow for the supply, installation, testing and commissioning of 668mm long microphone including all accessories and cables	No	15		
9	Supply, delivery and installation of Cat 6 EC Verified UTP solid cable Compliant to ISO11801:2002, TIA/EIA 568-B2.1, TIA-942 and BS EN 50174 standards including terminations	m	1 250		
<u>PVC SANS Approved Conduit</u>					
<u>Supply, delivery and installation of conduit on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, couplings, saddles, etc.</u>					
10	20mm Diameter conduit	m	58		
11	25mm Diameter conduit	m	1 150		
12	32mm Diameter conduit	m	29		
13	50mm Diameter conduit	m	12		
Carried to Collection				R	
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Public Address And Evacuation System					

		Unit	Quantity	Rate	Amount
14	20mm Diameter conduit, flexible	m	5		
15	25mm Diameter conduit, flexible	m	58		
<u>PVC SANS Approved Conduit Accessories</u>					
<u>Supply, delivery and installation of conduit accessories on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, mounting screws, cover screws, etc.</u>					
16	50mm Diameter conduit box for 20mm conduit	No	5		
17	50mm Diameter conduit extension box for 20mm conduit	No			RATE ONLY
18	50mm Diameter conduit box for 25mm conduit	No	109		
19	100mm x 50mm x 50mm Conduit box	No	4		
20	100mm x 100mm x 50mm Conduit box	No	3		
21	Blank standard cover for 50mm diameter conduit box	No	5		
22	Blank over-sized cover for 50mm diameter conduit box	No	1		
23	Blank cover for 100mm x 50mm conduit box	No	5		
24	Blank cover for 100mm x 100mm conduit box	No	4		
Carried to Collection				R	
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Bill No. 5					
Public Address And Evacuation System					

		Unit	Quantity	Rate	Amount
<u>TESTING AND COMMISSIONING</u>					
<u>Testing and Commissioning, etc. :</u>					
25	Testing and commissioning of the entire installation, complete	Item			
26	Provision of three sets of operating and maintenance manuals as required.	Item			
27	Provision of 'As-built' drawings, manuals, etc.	Item			
28	Guarantee for the next 12 months including quarterly maintenance checks	Item			
29	Housekeeping with coding and labelling of all plant and equipment and wiring, etc.	Item			
<u>SUNDRIES</u>					
<u>Sundries :</u>					
30	Workshop drawings and equipment schedule submittals for approval, as required, prior to ordering of equipment, etc	Item			
31	Training of staff on correct operation of equipment as required.	Item			
Carried to Collection				R	
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BILL NO. 5
PUBLIC ADDRESS AND EVACUATION SYSTEM
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	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 5</u></p> <p><u>ELECTRICAL WORK (PROVISIONAL)</u></p> <p><u>BILL NO. 6</u></p> <p><u>OPTIC FIBRE, DATA & TELEPHONE NETWORKS AND IT</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p>The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:</p> <p>Section A: Preamble to Standard Specifications</p> <p>Section B: Installation Specifications</p> <p>Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.</p>				
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Bill No. 6				
Optic Fibre, Data & Telephone Networks And It				

	Unit	Quantity	Rate	Amount
<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in their unit rates.</p> <p>Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p> <p><u>Compliance, Preliminary & General Items, (Contractual Items, Fixed Cost Items, Time Related Items & General Items), etc.</u></p> <p>The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub-contract to the Main Contractor. There is no separate Preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries & General and Compliance items applicable to this scope of works, including but not limited to :</p> <p>1) Provision of a Sub-Contract Construction Guarantee, in terms of the Sub-contract Agreement.</p> <p>2) Provision of an Advanced Payment Guarantee, in the amount as is required for the procurement of any materials/equipment to facilitate the completion of the works.</p> <p>3) Provision of Insurances such as Contract Works, Special, Supplementary, Public Liability Insurances, as deemed necessary in the contract, etc.</p> <p>4) Allowance for compliance with Construction Regulations, OH&S Specification by the Employer/Agent & the OH&S Act.</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 5 Bill No. 6 Optic Fibre, Data & Telephone Networks And It</p>				
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	Unit	Quantity	Rate	Amount
8) Training of Clients representative(s) at end of defects liability period				
9) Provision of record drawings				
10) Provision of Operating and Maintenance manuals				
<u>OPTIC FIBRE INSTALLATIONS, DATA & TELEPHONE NETWORKS, IT EQUIPMENT</u>				
<u>OPTIC FIBRE INSTALLATION</u>				
<u>Fibre Installation (Bulk Site)</u>				
1 Allow for the supply and installation of single-mode fibre optic including splicing, labelling and testing connection to Telkom	No	1		
<u>PVC SANS Approved Conduit</u>				
<u>Supply, delivery and installation of conduit on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, couplings, saddles, etc.</u>				
2 20mm Diameter conduit	m	5		
3 25mm Diameter conduit	m	100		
4 32mm Diameter conduit	m	3		
5 50mm Diameter conduit	m	1		
6 20mm Diameter conduit, flexible	m	5		
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Optic Fibre, Data & Telephone Networks And It				

		Unit	Quantity	Rate	Amount
<u>LAN POINTS & TELEPHONE POINTS</u>					
<u>Access Points</u>					
17	Allow for the supply and installation of Wi-Fi access point, 11N standard inclusive of wall mount kit, complete with connections and accessories to make the installation complete	No	8		
<u>Network Points (Local Area Network)</u>					
18	Allow for the supply and installation of network data point, standard inclusive of wall mount kit, complete with connections, 1.5m fly leads and accessories to make the installation complete	No	41		
<u>Telephone Points (Internet Protocol)</u>					
19	Allow for the supply and installation of network data point, standard inclusive of wall mount kit, complete with connections, 1.5m fly leads and accessories to make the installation complete	No	41		
<u>Cabling (Cat 6E) as above</u>					
20	Supply, delivery and installation of Cat 6 EC Verified UTP solid cable Compliant to ISO11801:2002, TIA/EIA 568-B2.1, TIA-942 and BS EN 50174 standards including terminations	m	2 800		
<u>PVC SANS Approved Conduit</u>					
<u>Supply, delivery and installation of conduit on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, couplings, saddles, etc.</u>					
21	20mm Diameter conduit	m	48		
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Optic Fibre, Data & Telephone Networks And It					

		Unit	Quantity	Rate	Amount
22	25mm Diameter conduit	m	956		
23	32mm Diameter conduit	m	24		
24	50mm Diameter conduit	m	10		
25	20mm Diameter conduit, flexible	m	2		
26	25mm Diameter conduit, flexible	m	48		
<u>PVC SANS Approved Conduit Accessories</u>					
<u>Supply, delivery and installation of conduit accessories on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, mounting screws, cover screws, etc.</u>					
27	50mm Diameter conduit box for 20mm conduit	No	84		
28	50mm Diameter conduit extension box for 20mm conduit	No	4		
29	50mm Diameter conduit box for 25mm conduit	No	2		
30	100mm x 50mm x 50mm Conduit box	No	3		
31	100mm x 100mm x 50mm Conduit box	No	2		
32	Blank standard cover for 50mm diameter conduit box	No	5		
33	Blank over-sized cover for 50mm diameter conduit box	No	1		
34	Blank cover for 100mm x 50mm conduit box	No			RATE ONLY
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		Unit	Quantity	Rate	Amount
35	Blank cover for 100mm x 100mm conduit box	No			RATE ONLY
<u>TESTING AND COMMISSIONING</u>					
<u>Testing and Commissioning, etc. :</u>					
36	Testing and commissioning of the entire installation, complete	Item			
37	Provision of three sets of operating and maintenance manuals as required.	Item			
38	Provision of 'As-built' drawings, manuals, etc.	Item			
39	Guarantee for the next 12 months including quarterly maintenance checks	Item			
40	Housekeeping with coding and labelling of all plant and equipment and wiring, etc.	Item			
<u>SUNDRIES</u>					
<u>Sundries :</u>					
41	Workshop drawings and equipment schedule submittals for approval, as required, prior to ordering of equipment, etc	Item			
42	Training of staff on correct operation of equipment as required.	Item			
Carried to Collection				R	
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OPTIC FIBRE, DATA & TELEPHONE NETWORKS AND IT
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SECTION NO. 5
ELECTRICAL WORK (PROVISIONAL)
SECTION SUMMARY

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1	LOW VOLTAGE RETICULATION AND DISTRIBUTION
2	SPECIALIST EQUIPMENT
3	ELECTRICAL EQUIPMENT
4	EXCAVATIONS AND RELATED BUILDERS WORKS
5	PUBLIC ADDRESS AND EVACUATION SYSTEM
6	OPTIC FIBRE, DATA & TELEPHONE NETWORKS AND IT

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SECTION NO 6

MECHANICAL WORK (PROVISIONAL)

			Amount
<u>SECTION NO. 6</u>			
<u>MECHANICAL WORK (PROVISIONAL)</u>			
<u>BILL NO. 1</u>			
<u>EARLY WARNING DETECTION AND ALARM</u>			
<u>PREAMBLES</u>			
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.			
<u>SUPPLEMENTARY PREAMBLES</u>			
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.			
The Specification for Comprehensive Services Incorporating Mechanical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Mechanical Installation for the project and forms the total scope of work under the Mechanical Contract. It shall be used in conjunction with the Standard Electrical/Mechanical Specification which has the following Sections:			
Section A: Preamble to Standard Specifications			
Section B: Installation Specifications			
Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical/Mechanical Installations.			
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Early Warning Detection And Alarm			
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	Unit	Quantity	Rate	Amount
<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Mechanical Engineer's drawings and Specifications. Tenderer's attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole of the installation. The contractor has to allow for these costs in their rates.</p> <p>All equipment as measured shall be deemed to be complete as described in the specifications and include fixing on mounting brackets if so required, etc.</p> <p>Every system supplied and installed shall be guaranteed for at least one (1) year from the date of Practical Completion against breakdown and/or faulty workmanship and shall be replaced free of charge, irrespective of the manufacturers or suppliers guarantee. All repair and replacement costs shall be borne by the Contractor.</p> <p>Electrical work shall be carried out in accordance with SABS 0142 code of practice as described.</p> <p>Anti-vibration mountings, supports, hangers, brackets and accessories are to be used where required to the satisfaction of the Engineer.</p> <p>Although shortened descriptions had been used in this bill, tenderers must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p> <p>Where brand or trade names are referred to in this bill of quantities, these shall indicate the quality and type of material or fitting required and no substitution of materials so specified will be permitted unless the prior authority of the Engineer has been obtained in writing.</p> <p>The Mechanical Contractor responsible for the works must have the following pre-qualifications:</p>				
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<p>Section No. 6</p> <p>Bill No. 1</p> <p>Early Warning Detection And Alarm</p>				

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	Unit	Quantity	Rate	Amount
8) Training of Clients representative(s) at end of defects liability period				
9) Provision of record drawings				
10) Provision of Operating and Maintenance manuals				
These bills of quantities shall be read with the drawings and project specifications of the tender document. The price submitted in this bill of quantities will deem all installations to be priced for completed and operational installations.				
<u>EARLY WARNING DETECTION AND ALARM SYSTEM</u>				
<u>Control Panel</u>				
1 Analogue addressable 2 loop control panel capable of supporting a maximum of 254 addressable sensors, equipped to receive radio signals from remote panels, have a liquid crystal display of more than 150 characters, complete with 28 Amp battery backup and battery charging unit, ability to carry out automatic "self testing" at regular intervals and report, and all fully compliant with BS5839 and EN54.	No	1		
2 Ditto, as above, but as a "slave panel"	No			RATE ONLY
3 Interface to existing fire detection panel	No			RATE ONLY
<u>Line Isolators</u>				
4 Line Isolators	No	4		
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Early Warning Detection And Alarm				

		Unit	Quantity	Rate	Amount
<u>Detection Devices</u>					
<u>Ceiling-mounted, smoke sensitive and heat sensitive, addressable type detection devices, complete with plug-in type mounting base and indication light emitting diode (LED)</u>					
5	Analogue, optical, smoke, addressable detection	No	55		
6	Analogue, thermal, addressable detection device	No	2		
7	Analogue, beam, addressable detection 100 m	No			RATE ONLY
8	Removal of existing devices	No			RATE ONLY
<u>Fire-rated Cable</u>					
9	Fire-rated PH120 type 1 mm ² cable (installed into galvanised / PVC conduit which shall be supplied and installed by appointed EWD Sub-contractor, complete with galvanised draw-wire)	m	1 248		
<u>Remote LED Devices</u>					
10	Remote LED devices to suit above detection devices	No	13		
<u>Sounders (Sirens)</u>					
11	Ceiling-mount addressable sounder (siren) mounted on the same base as the detector including the detector	No	4		
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Early Warning Detection And Alarm					

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		Unit	Quantity	Rate	Amount
26	Provision of three sets of operating and maintenance manuals as required.	Item			
27	Provision of 'As-built' drawings, manuals, etc.	Item			
28	Guarantee for the next 12 months including quarterly maintenance checks	Item			
29	Housekeeping with coding and labelling of all plant and equipment and wiring, etc.	Item			
<u>SUNDRIES</u>					
<u>Sundries :</u>					
30	Workshop drawings and equipment schedule submittals for approval prior to ordering for all units.	Item			
31	Training of staff on correct operation of units as required.	Item			
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Early Warning Detection And Alarm					
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EARLY WARNING DETECTION AND ALARM
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MECHANICAL WORK (PROVISIONAL)
SECTION SUMMARY

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1 EARLY WARNING DETECTION AND ALARM

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SECTION NO 7

EXTERNAL WORKS - EXISTING OFFICES
(PROVISIONAL)

Amount

SECTION NO. 7

**EXTERNAL WORKS - EXISTING OFFICES
(PROVISIONAL)**

BILL NO. 1

**DEMOLITIONS, SITE CLEARANCE AND BULK
EARTHWORKS**

PREAMBLES

For Preambles refer to "Department of Public Works:
Specification of Materials and Methods to be used -
PW371-A" which shall be read in conjunction with and
shall apply to all items in these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Items, materials or methods to be used specified by
trade names or catalogue numbers are only an indication
of the quality required. Items, materials or methods of
similar quality may be used with prior approval from the
Architect/Engineer.

Note :

All Earthworks shall be done in accordance with the
SANS 1200 specifications.

Nature of ground:

The Tenderer must acquaint himself with the nature of the
material to be excavated.

The nature of the ground is assumed to be loose fine to
medium sandy material, therefore earth, but possibly
interspersed with hard rock or soft rock.

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Section No. 7

Bill No. 1

Demolitions, Site Clearance And Bulk Earthworks

	Unit	Quantity	Rate	Amount
<p><u>Carting away of excavated material:</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.</p> <p><u>Dewatering of Excavations</u></p> <p>The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping , baling or otherwise.</p> <p>Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water.</p> <p><u>Density testing on filling</u></p> <p>Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved</p> <p>When additional testing is done on instruction of the Architect and these tests are successful, they will be paid for additionally.</p> <p><u>Old materials to become the property of the Contractor :</u></p> <p>Old materials from the demolitions, except where described to be re-used or handed over, become the property of the Contractor who must allow credit for the same in the Final Summary of these Bills of Quantities.</p>				
<p>Section No. 7</p> <p>Bill No. 1</p> <p>Demolitions, Site Clearance And Bulk Earthworks</p>	Carried to Collection		R	

	Unit	Quantity	Rate	Amount
<p><u>Old materials to be carted away:</u></p> <p>Old materials from demolitions except where described to be re-used or handed over, as well as all rubbish, etc., must be regularly carted from the site and not to be allowed to accumulate on or around the site.</p> <p><u>Old materials not to be re-used :</u></p> <p>None of the old materials are to be used for new work except where specifically described being set aside for re-use.</p> <p><u>Handing over of materials :</u></p> <p>Where certain materials or articles from demolitions or articles are described as to be handed over by the Contractor to the Regional Representative or Representative/Agent, such materials or articles shall be properly stored by the Contractor, untill handing over thereof. The Contractor must obtain an official receipt listing the materials or articles and dates of handing over. If the Contractor fails to submit the receipt when requested, it shall be deemed that the materials or articles are still in his possession and he will be held liable to the Client for the full replacement value thereof, which amount will be deducted from any monies due to the Contractor.</p> <p><u>Explosives</u></p> <p>No explosives whatsoever may be used for demolition purposes unless otherwise stated</p>				
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	Unit	Quantity	Rate	Amount
<u>General :</u>				
<p>Before starting work, the Contractor shall carry out a thorough survey and examination of the buildings or structures to be demolished and satisfy themselves as to the nature and requirements of the contract. The Contractor is to locate and mark the positions of existing services affected by the demolitions. No extra's will be allowed due to the Contractor's failure to carry out the above.</p> <p>Water supply pipes and other piping in ground that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings to the satisfaction of the principal agent</p> <p>Burning of materials arising from the demolitions will not be permitted on site.</p> <p>All sizes given for demolitions are approximate and are to be confirmed on site.</p>				
<u>DEMOLITIONS. ETC.</u>				
<u>Re-location of Existing Temporary Buildings and Utilities :</u>				
1	Re-location of existing Mobile Guard House Parkhome Unit, size approximately 3 x 3m on plan and 3m high, complete to nearby Decanting site within 2km radius, including disconnecting from any services and making safe. (Setting up Parkhome in new position measured elsewhere under Decanting Site).	No	1	
2	Re-location of existing Mobile Courtroom Parkhome Unit, size approximately 12 x 3m on plan and 3m high, complete to nearby Decanting site within 2km radius, including disconnecting from any services and making safe. (Setting up Parkhome in new position measured elsewhere under Decanting Site).	No	1	
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		Unit	Quantity	Rate	Amount
3	Re-location of existing Mobile Cleaners Parkhome Unit, size approximately 6 x 3m on plan and 3m high, complete to New position on same site within 50m, including disconnecting from any services and making safe and including setting up Parkhome in new position and re-connecting as before.	No	1		
4	Disassemble existing steel access ramp, approximate size 22 x 1.2m wide x 1m high including 1m high balustrading, complete and Re-locate to nearby Decanting site within 2km radius or handing over to Client if not re-used. (Setting up and assembling Steel Access Ramp in new position measured elsewhere under Decanting Site).	No	1		
<u>Demolishing and removing :</u>					
5	Existing single storey Outbuilding B with pitched roof, size 6.54 x 3.78m on plan and 3.45m high at eaves, comprising reinforced concrete surface bed, brick external walls, brick internal walls and corrugated roof covering on timber trusses, including digging up and removal of building foundations, etc, complete and remove all rubble from site. (See Work to be done by SMME)	No	1		RATE ONLY
6	Existing 5000L JoJo rainwater tank and constructed plinth stand, approximate size 2000 x 2000mm x 500mm high, consisting of brick walls and concrete surface bed, including digging up and removal of foundations, etc, complete and remove all rubble from site and re-locate water tanks to nearby Decanting site within 1km radius for re-use. (Setting up and assembling water tanks on Decanting site is elsewhere measured).	No	3		
<u>Taking up and removing :</u>					
7	80mm Thick concrete interlocking block paving on sand bedding to roadways. (See work to be done by SMME)	m²	580		RATE ONLY
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		Unit	Quantity	Rate	Amount
8	80mm Thick damaged concrete interlocking block paving on sand bedding to roadways in external parking areas in damaged/missing areas in patches. (See work to be done by SMME)	m ²	264		RATE ONLY
9	110/200mm Diameter underground stormwater pipes, including excavations exceeding 1m not exceeding 2m deep, backfilling and cart way of surplus material to dump site and compacting fill to required density.	m	41		
<u>Taking down and removing :</u>					
10	Steel palisade fencing panels in varying widths, approximately 1800mm high, fixed between plastered brick piers to perimeter boundary wall.	m	90		
11	Steel diamond mesh security fence with steel posts and droppers and 45 degree barbed wire overhang, approximately 2,1m high overall. (See work to be done by SMME)	m	90		RATE ONLY
12	Mild steel pedestrian gate approximately 1940 x 2410mm high at public main entrance	No	1		
13	Mild steel vehicular gate approximately 3000 x 2700mm high at staff vehicle entrance.	No	1		
<u>Breaking up and removing :</u>					
14	Tarmac roadways and driveways, etc.	m ²	202		
15	100mm Thick reinforced concrete surface beds, paving, etc, in areas around existing buildings.	m ²	220		
16	150mm Thick reinforced concrete surface beds, paving, etc	m ²	156		
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		Unit	Quantity	Rate	Amount
17	300mm Wide concrete surface stormwater channel, etc	m	146		
18	Existing stormwater manhole/catchpit approximate size 600 x 450mm not exceeding 2m deep, including excavations, removal of brick structure and concrete base and slab, carting away material to a dump site by contractor, backfilling with suitable material and compacting to required density, etc.	No	3		
<u>SITE CLEARANCE, ETC.</u>					
<u>Site clearance, etc.:</u>					
19	Allow for clearing the area of the site to be built upon of all grass, weeds, shrubs, trees with trunks not exceeding 200mm girth, debris, etc., including grubbing up all roots, scoffling up as required and cart away all vegetation and debris.	m ²	547		
20	Strip topsoil layer average 150mm thick and stockpile on site for later re-use.	m ³	82		
<u>REMOVAL OF TREES, ETC.</u>					
<u>Taking out and removing, grubbing up roots and filling in holes:</u>					
21	Tree stump exceeding 500mm and not exceeding 1000mm girth.	No	1		
<u>Cut down and remove, grub up roots and fill in holes:</u>					
22	Tree exceeding 500mm and not exceeding 1000mm girth.	No	1		
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		Unit	Quantity	Rate	Amount
23	Tree exceeding 1000mm and not exceeding 1500mm girth.	No	1		
24	Tree exceeding 1500mm and not exceeding 2000mm girth.	No	1		
25	Tree exceeding 2000mm and not exceeding 2500mm girth.	No	1		
<u>BULK EXCAVATION</u>					
<u>Open face excavation in earth over sloping site:</u>					
26	Open face excavation over site to reduce levels for platforms, roadways and parking including spreading and levelling in areas of fill and depositing excavated material over site including haulage not exceeding 1 km from perimeter of excavations.	m ³	188		
<u>Extra over bulk excavation in earth for excavation in:</u>					
27	Soft rock	m ³	9		
28	Hard rock	m ³	5		
<u>CARTING AWAY.</u>					
<u>Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):</u>					
29	In spoil heaps where directed on site.	m ³	188		
30	Off site to a dumping site to be found by the Contractor.	m ³	148		
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		Unit	Quantity	Rate	Amount
<u>COMPACTION OF SURFACES</u>					
<u>Compaction of surfaces:</u>					
31	In - place treatment of existing or filled material by ripping, scarifying for a depth of 150mm, breaking down oversize material and compacting to 90% Mod AASHTO density. (See work to be done by SMME)	m ²	980		RATE ONLY
<u>EARTH FILLING, ETC.</u>					
<u>Filling with selected excavated material from excavations on the site, compacted to a density of at least 90% Mod. AASHTO maximum density in 150mm layers:</u>					
32	In backfilling behind Kerbing and Edging on sides of roadways and parking areas. (See work to be done by SMME)	m ³	40		RATE ONLY
<u>Filling with approved G7 sub-base quality material carted onto site by the Contractor, compacted to a density of at least 93% Mod. AASHTO maximum density in 150mm layers:</u>					
33	Over site for roadways, platforms and paving. (See work to be done by SMME)	m ³	147		RATE ONLY
<u>Filling with approved G5 sub-base quality material carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density in 150mm layers:</u>					
34	Over site for roadways, platforms and paving. (See work to be done by SMME)	m ³	147		RATE ONLY
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		Unit	Quantity	Rate	Amount
<u>KEEPING EXCAVATIONS FREE OF WATER</u>					
<u>Keeping excavations free of water:</u>					
35	Keeping excavations free of all water other than subterranean water.	Item			
<u>TESTS</u>					
Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Architect/Engineer and these tests are successful, they will be paid for additionally.					
<u>Prescribed density tests on filling:</u>					
36	Modified AASHTO Density test.	No	7		
37	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	8		
38	Maximum dry density and optimum moisture content test in accordance with method A7 of TMH 1	No	8		
<u>GRASSING, ETC.</u>					
<u>Ground preparation:</u>					
39	Cultivation and preparation of areas to be planted, including general shaping and trimming of ground.	m ²	400		RATE ONLY
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		Unit	Quantity	Rate	Amount
<u>Topsoil, compost, lime and fertilizer:</u>					
40	Topsoil obtained from prescribed stock piles on site spread and levelled to average 150mm thick to areas around structures where directed and including in-place treatment of filled topsoil material by ripping, scarifying for a depth of 150mm and breaking down oversize material.	m²	400		RATE ONLY
<u>Fertilizing:</u>					
41	Fertilize garden top soil with 3:2:1 super phosphate spread at a rate of 1kg/10m² including working evenly into top 20mm depth of soil.	m²	400		RATE ONLY
<u>Grassing of Kikuyu grass or equally approved roots in rows over site:</u>					
42	Kikuyu grass or equally approved runners over topsoiled areas including watering and maintainance, etc until Practical Completion of the project, 3 months maintenance period after practical completion elsewhere measured.	m²	400		RATE ONLY
<u>Maintenance:</u>					
43	Maintenance of grassed and ground covered areas for a period of 3 months (total area approximately 400m²), including regularly weeding and irrigating as necessary.	Item			RATE ONLY
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	Unit	Quantity	Rate	Amount
<u>Dewatering of Excavations</u>				
The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping , baling or otherwise.				
Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water.				
<u>Density testing on filling</u>				
Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved				
When additional testing is done on instruction of the Architect/Engineer and these tests are successful, they will be paid for additionally.				
<u>Note:</u>				
All Earthworks shall be done in accordance with the SANS 1200 specifications.				
Refer to the relevant sections in SANS 1200 Mk for the specification of roadworks which will apply in this Bill.				
Site Clearance and Bulk Earthworks has been elsewhere measured under the Site Clearance and Bulk Earthworks Bill. All work in this bill is measured from the cleared, excavated and filled level.				
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		Unit	Quantity	Rate	Amount
<u>ROADWORKS, PAVINGS, ETC.</u>					
<u>SOIL POISONING</u>					
<u>Approved brand of weedkiller mixed and applied strictly in accordance with the manufacturer's instructions :</u>					
1	Under paving, to delivery access road and parking area, etc. (See work to be done by SMME)	m ²	824		RATE ONLY
2	Under external paving, to parking area in patches, etc. (See work to be done by SMME)	m ²	264		RATE ONLY
<u>BOND AND INTERLOCKING CONCRETE BLOCK PAVERS</u>					
Block paving to be manufactured in accordance with SABS Specification 1058 to the following compressive strength:					
Class 25 or 35MPa or as specified by the Engineer.					
Paving to be laid in accordance with SANS 1200MJ, SABS 1058 and the Concrete Manufacturers Association's specifications.					
Clean dry bedding sand complying with SANS 1200D to be laid under paving.					
Clean dry jointing sand complying with SANS 1200MJ is to be swept into joints between roadstones.					
Paving to be installed with a minimum longitudinal fall of 1% and a transverse fall of at least 2%.					
All block paving to be inspected and resanded after 3 months.					
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	Unit	Quantity	Rate	Amount
<u>Paving of 80mm thick Type S-A Class 25 Approved Precast Concrete interlocking paving blocks, size 200 x 100 x 80mm Thick, (Coloured to Architects later specification) laid in herringbone pattern on and including 25mm thick compacted river sand bed with fine dry filler jointing sand swept and vibrated into joints all laid on subgrade (elsewhere measured conforming to SABS 1200D degree of accuracy I :</u>				
3 Paving to roads and parking areas to falls. (See work to be done by SMME)	m ²	789		RATE ONLY
4 Paving to external parking areas in damaged or missing patches, to falls. (See work to be done by SMME)	m ²	264		RATE ONLY
5 Fair circular cutting and waste to paving. (See work to be done by SMME)	m	4		RATE ONLY
<u>BITUMINOUS PREMIX ROAD SURFACING</u>				
<u>Bituminous premix road surfacing :</u>				
6 30mm Thick bituminous paving to roadways and parking, etc, including bitumin spray to base course	m ²	35		
<u>CONCRETE EDGE BEAM, ETC.</u>				
<u>Excavation not exceeding 2m deep:</u>				
7 For edge beam to roadways.	m ³	1		
<u>Extra over all excavations for carting away</u>				
8 Surplus material from excavations to a dumping site to be located by the contractor.	m ³	1		
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		Unit	Quantity	Rate	Amount
16	6 x 30mm Saw-cut joints in top of concrete	m	45		
	<u>Expansion joints with 8mm jointex or bitumen impregnated softboard through concrete paving</u>				
17	Paving not exceeding 300mm thick	m	53		
	<u>Construction joints through concrete, including bitumen applied to first concrete face prior to casting of adjacent slab, with and including 115 x 115 x 6mm galvanised steel plate dowels placed at 450mm centres, parallel to each other and square to the face of the joint with bond breaking compound applied to dowels before the 2nd pour.</u>				
18	Paving not exceeding 300mm thick	m	45		
	<u>Fabric reinforcement</u>				
19	Type 395 fabric reinforcement in concrete paving etc	m ²	156		
	<u>Grey polyurethane joint sealant, including backing cord, bond breaker, primer, etc</u>				
20	6 x 10mm In saw - cut joints.	m	45		
21	8 x 15mm In expansion joints, including raking out expansion joint filler as necessary	m	53		
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		Unit	Quantity	Rate	Amount
<u>KERBING CHANNELS, ETC.</u>					
<u>Precast concrete kerbing finished smooth on exposed surfaces including bedding, jointing and pointing, etc.</u>					
22	Standard Kerb (SABS 927-1969 Fig 3) 125/150 x 300mm high overall laid upright on and including 200 x 50mm thick unreinforced 15/13Mpa concrete bedding, with 150 x 300mm unreinforced concrete haunching at back of each joint in kerbing, including all excavation, backfilling, etc. (See work to be done by SMME)	m	193		RATE ONLY
23	Ditto but circular on plan not exceeding 4m radius formed with short lengths of straight kerbing including all excavations, backfilling, etc. (See work to be done by SMME)	m	4		RATE ONLY
24	Standard Sunken Kerb (SABS 927-1969 Fig 10) 100 x 250mm high overall sunken on and including 200 x 50mm thick unreinforced 15/13Mpa concrete bedding, with 150 x 300mm unreinforced concrete haunching at back of each joint in kerbing, including all excavation, backfilling, etc. (See work to b done by SMME)	m	3		RATE ONLY
<u>PAINTING, ETC.</u>					
<u>Prepare surfaces, wash thoroughly, remove loose material, leave to dry and apply two coats Road Marking' acrylic road marking paint to roadways and parking areas all in accordance with Standard Provincial Road Practice including all setting out to:</u>					
25	100mm Wide solid white line to precast concrete paved roadways and parking.	m	95		
26	Standard "STOP" sign markings to precast concrete paved roadways and parking.	No	1		
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Stormwater Drainage				

	Unit	Quantity	Rate	Amount
<p><u>Concrete pipes:</u></p> <p>Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.</p> <p><u>Exposed concrete surfaces:</u></p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.</p> <p><u>Excavations:</u></p> <p>No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.</p> <p>'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.</p> <p><u>Laying, backfilling, bedding, etc of pipes:</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS 1200.</p>				
<p>Section No. 7</p> <p>Bill No. 3</p> <p>Stormwater Drainage</p>				
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	Unit	Quantity	Rate	Amount
<u>EXISTING STORMWATER DRAINAGE</u>				
<u>Cleaning of existing stormwater channels, reticulation and catchpits :</u>				
1 Cleaning of and making good existing 450mm half round concrete surface stormwater channel by hand or high pressure jetting, to get channel into full working condition and all to Engineers approval.	m	53		
2 Cleaning and flushing of existing 300mm diameter stormwater pipeline by hand, winching or high pressure jetting, to get pipeline into full working condition and all to Engineers approval.	m	8		
3 Cleaning of existing 450 x 450mm x approximately 1m deep stormwater catchpit, by hand or other means, to get catchpit into full working condition and all to Engineers approval.	No	3		
4 Cleaning of existing 1460 x 1460mm x approximately 2m deep stormwater manhole, by hand or other means, to get manhole into full working condition and all to Engineers approval.	No	3		
5 Existing 450 x 450mm stormwater catchpit to receive new SABS 230 x 230mm Light Duty Square Dished Grating to replace existing damaged or missing grating, including removal of existing damaged grating.	No	3		
6 Existing 1460 x 1460mm stormwater manhole to receive new SABS 558 Type 9C Manhole Cover & Frame to replace existing damaged or missing cover, including removal of existing damaged cover and frame.	No	3		
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		Unit	Quantity	Rate	Amount
<u>PRECAST CONCRETE STORMWATER CHANNELS</u>					
<u>SABS Approved Precast Concrete Surface Channels:</u>					
7	450 x 170mm Type 3 Half Round Stormwater Surface Water Channel with 300 x 100mm deep half round channel, finished smooth and laid to falls, including excavations, bedding, etc and placing in position on a well rammed earth bottom.	m	157		
8	Extra for angles, intersections, ends, dressing into sides of catchpits, etc.	No	20		
<u>CONCRETE STORMWATER CHANNELS ETC</u>					
<u>25/19Mpa Concrete stormwater channels :</u>					
9	600 x 150mm Surface Drain Channel with 60mm deep V-shaped channel formed therein and finished smooth on exposed surfaces including Ref 193 mesh reinforcing, necessary excavation, compaction and formwork, etc.	m	45		
10	Extra over for angles, intersections, ends, dressing into sides of catchpits, etc	No	4		
<u>Grey polysulphide joint sealant, etc</u>					
11	6 x 30mm In expansion joints between concrete and brick surfaces	m	45		
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Stormwater Drainage					

		Unit	Quantity	Rate	Amount
<u>STORMWATER DRAINAGE</u>					
<u>uPVC SABS approved underground stormwater pipes with interlocking socket joints and short lengths to falls in ground, including excavating, backfilling, compacting to 93% modified AASHTO dry density and including all nessasary risk of collapse and dewatering of trenches:</u>					
12	300mm Diameter stormwater pipes laid in and including trenches 650mm wide and exceeding 1m and not exceeding 2m deep including 100mm selected grandular material bedding below and 750mm selected fill material around pipe, with suitable backfill material above.	m	88		
13	Extra on uPVC stormwater pipes for 300 x 300 x 300mm equal tee fitting.	No	1		
<u>Sumps, catchpits, inspection chambers, manholes etc (gratings and covers elsewhere):</u>					
14	Excavate for and build stormwater catchpit complete exceeding 1000mm not exceeding 2000mm deep to form inlet to stormwater reticulation size 650 x 650mm wide overall including 150mm thick 25/19Mpa concrete bottom base with mesh 193 centrally, 220mm brickwork in stocks size 450 x 450mm overall, with 10mm internal plaster, benching to bottom of pit, building in 300mm diameter stormwater pipe and 110mm thick 25/19Mpa concrete cover slab over with mesh 193 centrally, slab to receive 230 x 230mm square dished light duty grating (elsewhere measured) and including all formwork, reinforcement, backfilling, compaction etc . (See Stormwater Catchpit Detail as per Engineering Standard Details Drawing 35016/C20246/DET-008 - Stormwater Catchpit Detail).	No	3		
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		Unit	Quantity	Rate	Amount
15	Excavate for and build stormwater manhole/inlet, complete exceeding 1000mm deep not exceeding 2000mm deep to form inlet to stormwater reticulation size 1990 x 1990mm wide overall, including 150mm thick 25/19Mpa concrete bottom base with mesh 245 centrally, 345mm brickwork and 230mm brickwork in stocks size 1460 x 1460mm overall, with 10mm internal plaster, benching to bottom of pit, building in 300mm diameter stormwater pipe to two sides and 150mm thick 25/19Mpa reinforced concrete cover slab over to receive one (1) SABS 558 Type 9C manhole cover and frame (elsewhere measured) built into slab with and including all excavations, formwork, reinforcement, backfilling, compaction etc . (See Stormwater Manhole Detail as per Engineering Standard Details Drawing 35016/C20246/DET-008 - Stormwater Manhole Detail).	No	4		
16	Ditto, but exceeding 2000mm not exceeding 3000mm deep.	No	1		
	<u>Gratings, covers, etc:</u>				
17	230 x 230mm Light duty square dished grating and frame cast into concrete cover slab.	No	3		
18	S.A.B.S. 558 Type 9C Manhole cover and frame, cast into concrete cover slab.	No	5		
	<u>SUNDRIES</u>				
	<u>Sundries:</u>				
19	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock.	m³	4		
20	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock.	m³	2		
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		Unit	Quantity	Rate	Amount
21	Extra over excavation for pipe trenches, chambers, etc for carting away surplus material to a dumping site to be located by the Contractor.	m ³	6		
22	Extra over backfilling to drain trenches, chambers, etc for imported earth G7 backfilling material supplied by the Contractor.	m ³	6		
23	Cutting into side of existing stormwater manhole for and connecting 300mm pipe including inserting 300mm channel junction and making good concrete benching and manhole sides.	No	3		
<u>TESTING</u>					
<u>Testing :</u>					
24	Testing complete stormwater drainage pipe system.	Item			
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STORMWATER DRAINAGE
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	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 7</u></p> <p><u>EXTERNAL WORKS - EXISTING OFFICES</u></p> <p><u>(PROVISIONAL)</u></p> <p><u>BILL NO. 4</u></p> <p><u>SOIL DRAINAGE AND SEWER RETICULATION</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>Note:</u></p> <p>All plastic pipe diameters are nominal external.</p> <p>All pipes shall be jointed and fixed strictly in accordance with the manufacturers instructions.</p> <p><u>uPVC pipes and fittings:</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.</p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed.</p> <p><u>uPVC pressure pipes and fittings:</u></p> <p>All pipes shall be of the class stated.</p>				
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	Unit	Quantity	Rate	Amount
<p>Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.</p> <p>Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.</p> <p><u>Exposed concrete surfaces:</u></p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.</p> <p><u>Excavations:</u></p> <p>No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.</p> <p>'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.</p> <p><u>Laying, backfilling, bedding, etc of pipes:</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS 1200.</p>				
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	Unit	Quantity	Rate	Amount
<u>SOIL DRAINAGE, SEWER RETICULATION, ETC.</u>				
<u>EXISTING SEWER RETICULATION</u>				
<u>Cleaning of existing sewer reticulation pipeline and manholes:</u>				
1				
Cleaning of existing 110mm diameter uPVC sewer reticulation pipeline, by hand, winching or high pressure jetting, to get pipeline into full working condition and all to Engineers approval.	m	110		
2				
Cleaning of existing 1000 x 1000mm x approximately 2m deep sewer manhole, by hand or other means, to get manhole into full working condition and all to Engineers approval.	No	5		
<u>NEW SEWER RETICULATION</u>				
<u>uPVC Class 34 sewer pipes:</u>				
3				
110mm Pipes vertically or ramped to cleaning eyes etc (no excavation).	m	3		
4				
110mm Pipes laid in and including trenches not exceeding 1m deep.	m	4		
5				
110mm Pipes laid in and including trenches exceeding 1m not exceeding 2m deep.	m	15		
<u>Extra over uPVC Class 34 pipes for fittings:</u>				
6				
110mm Bend.	No	4		
7				
110mm Access Bend.	No	4		
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		Unit	Quantity	Rate	Amount
8	110mm Junction.	No	2		
9	110mm Access junction.	No	2		
10	110mm Access double junction.	No	1		
<u>Gulleys:</u>					
11	Precast concrete dished gulley surround including 110mm 'P' trap PVC gulley head and grating, complete, not exceeding 1000mm deep.	No	2		
<u>MANHOLES, INSPECTION CHAMBERS, ETC.</u>					
<u>Sewer Manholes and Inspection Chambers :</u>					
12	Manhole size 1760 x 1760mm wide overall and not exceeding 750mm deep internally to invert level formed of 230mm brick wall sides in 1:3 cement mortar with and including brickforce every third course all round on and including 150mm thick 25/19Mpa concrete base projecting 150mm beyond sides with and including mesh ref 193 placed centrally and mass concrete (25 Mpa at 28 days in 12mm stone) benching, rendered internally in 1:5 cement plaster 10mm thick and with 150mm thick 30/19Mpa reinforced concrete surround slab on top including all reinforcing, rebated for and fitted with and including 900 x 900mm Lockable Polymer concrete cover and frame, bedded in 1:3 cement mortar and sealed in tallow including all necessary channels and fittings, excavations, filling, formwork, holes through sides for pipes, concrete encasing around pipes through side of manhole, etc. (See Sewer Manhole Details as per Engineering Standard Details Drawing 35016/C20246/DET/002 - Sewer Details).	No	1		
13	Ditto, but exceeding 750mm deep and not exceeding 1500mm deep.	No	1		
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		Unit	Quantity	Rate	Amount
<u>SUNDRIES</u>					
<u>Sundries:</u>					
14	110mm PVC straight or skew rodding eye with removable plate cover jointed to 110mm uPVC pipe and set in and including concrete Class 15 Mpa surround size 300 x 500 x 150mm thick with exposed surface trowelled smooth.	No	2		
15	Precast concrete (Class 15 Mpa) block size 500 x 500 x 75mm thick finished smooth on top and four edges with letters "I.E." formed in top, set in ground over top of inspection fitting.	No	2		
16	Extra over excavation in earth for pipe trenches, manholes, etc for excavation in soft rock.	m³	4		
17	Extra over excavation in earth for pipe trenches, manholes, etc for excavation in hard rock.	m³	2		
18	Extra over backfilling to drain pipe trenches, manholes, etc for selected approved imported earth backfilling, supplied by the Contractor.	m³	6		
19	Extra over excavation for pipe trenches, manholes, etc for carting away surplus material (where imported filling used) to a dumping site to be located by the Contractor.	m³	6		
20	Unreinforced concrete class 'B' encasing to 110mm horizontal pipe in ground.	m	2		
21	Cutting into side of existing manhole for and connecting 110mm pipe including inserting 110mm channel junction and making good concrete benching and manhole sides.	No	1		
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		Unit	Quantity	Rate	Amount
22	Locating, excavating and cutting into existing 110mm diameter sewer main and preparing pipe for new manhole (manhole elsewhere measured).	No	1		
23	Standard 150 x 150mm precast reinforced concrete pipeline route markers tapering to 100 x 100mm at top, 1500mm long overall, complete with pipeline lable lettering, marker set 750mm deep in ground and cast into mass concrete base size 550 x 550 x 600mm high and protruding 750mm above ground level, to route of underground pipes, including all excavations, backfilling, carting away, etc. and painted above ground with one coat primer and two coats enamel based paint once erected.	No	5		
<u>TESTING</u>					
<u>Testing :</u>					
24	Testing drainage pipe system, complete.	Item			
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SOIL DRAINAGE AND SEWER RETICULATION
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Water And Fire Reticulation				

	Unit	Quantity	Rate	Amount
<p><u>Reducing fittings:</u></p> <p>Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.</p> <p><u>Corrosion Protection:</u></p> <p>External protection of all underground steel pipes, flanges, joints and couplings shall be by means of a 300 micron layer of coaltar epoxy of an approved make. External protection of all above ground steel pipes, flanges, joints and couplings shall be by means of a zinc coating. The finished surface shall be clean and uniform any excess being removed. The zinc deposit shall exceed 0.735 kg/m².</p> <p><u>Joints, Bolts, Nuts and Washers:</u></p> <p>"Bolts, nuts and washers shall be treated as follows:</p> <p>Bolts and nuts shall be cadmium plated to BS 1706 and shall conform to grade 4.6 of SABS 135 and BS 916.</p> <p>Plain and tapered washers for use with mild steel bolts and nuts shall comply with BS 4320 and will be electro-galvanised to BS 1706.</p> <p>Plain and tapered washers for use with high tensile steel bolts and nuts shall be case hardened with a minimum hardness of Rockwell C-35.</p>				
<p>Section No. 7</p> <p>Bill No. 5</p> <p>Water And Fire Reticulation</p>				
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	Unit	Quantity	Rate	Amount
<u>Corrosive Soil:</u>				
All buried steel pipework and connections to be "DENSO" wrapped.				
"Fittings and joints shall be protected with 'Denso Tape' or similar approved material.				
After the joints and fittings have been tested, they shall be liberally and completely coated with 'Denso Paste' and immediately thereafter wrapped with 'Denso Tape'. Wrapping shall commence at a point at least 50mm beyond the opposite side of the joint or fitting. An overlap of at least 25mm shall be given on each turn.				
Care shall be taken to smooth down the tape so as to avoid air pockets and gaps through which water could penetrate. Any turned or damaged tape shall be replaced or patched to the satisfaction of the Engineer's Representative. The Contractor shall ensure that the wrapping is not damaged during backfilling.				
<u>Galvanising:</u>				
"Galvanised steel pipework, fittings, specials etc. Shall comply with SABS 934 and 763 and be entirely coated with zinc after fabrication by complete immersion in a zinc bath. The finished surface shall be clean and uniform and any excess being removed. The zinc deposit shall exceed the following.				
Coastal areas 0.735 kg/m3				
Inland areas 0.400 kg/m3				
"Coastal areas' shall apply to this contract."				
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	Unit	Quantity	Rate	Amount
<u>Pipeline Markers</u>				
Where so instructed by the Engineer or as shown on the drawings, the Contractor shall erect pipeline markers. These markers will be precast concrete units manufactured out of 25 Mpa concrete to the dimensions shown on the drawings and shall comply with SABS 1200 GA Concrete.				
All markers to receive one primer coat followed by two coats of enamel based paint, colour blue, once erected.				
Markers are to be erected 300mm off the edge of the pipe trench to the left of the trench and at right angles to the trench centre line at the points as indicated on the pipe longsections.				
At bends the marker will be erected at the P.I. Point of these 300 mm offset lines.				
<u>Depth and Cover:</u>				
Depth of excavation for pipe trenches shall be as per the drawing. The minimum required cover to the top of collars shall be 600mm.				
<u>Testing:</u>				
General				
Pipes shall be tested in convenient lengths not exceeding 500m per each test.				
Testing of Valves				
All valves shall be pressure tested according to SABS 664 or other applicable code at the appropriate test pressure.				
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	Unit	Quantity	Rate	Amount
<p>No separate payment shall be made for testing of valves and hydrants and the scheduled rates for the supply and installation of valves shall include for all costs in respect of testing.</p> <p><u>Disinfecting:</u></p> <p>All pipes are to be disinfected to a free chlorine count of 8 parts per million.</p> <p>No separate payment shall be made for disinfecting pipes and scheduled rates for piping shall include for all costs in respect of disinfecting.</p> <p><u>Excavations:</u></p> <p>No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.</p> <p>'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.</p> <p><u>Laying, backfilling, bedding, etc of pipes:</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' and Engineers instructions.</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS 1200.</p>				
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		Unit	Quantity	Rate	Amount
<u>WATER AND FIRE SUPPLIES, ETC.</u>					
<u>HDPE WATER PIPES</u>					
<u>Class 10 HDPE water pipes :</u>					
1	40mm Diameter pipes laid in and including trenches not exceeding 1m deep.	m	100		
2	40mm Diameter pipes laid in and including trenches exceeding 1m not exceeding 2m deep.	m	20		
<u>Extra over Class 10 HDPE pipes for HDPE pressure fittings :</u>					
3	40mm Reducer	No	9		
4	40mm Bend	No	24		
5	40mm Equal Tee	No	7		
6	40mm End Cap	No	5		
7	40mm Threaded adaptor	No	12		
<u>UPVC PRESSURE WATER PIPES</u>					
<u>Class 12 PVCU pressure water pipes with flexible couplings:</u>					
8	75mm Diameter pipes laid in and including trenches not exceeding 1m deep.	m	45		
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		Unit	Quantity	Rate	Amount
9	75mm Diameter pipes laid in and including trenches exceeding 1m not exceeding 2 m deep.	m	5		
10	140mm Diameter pipes laid in and including trenches not exceeding 1m deep.	m	100		
11	140mm Diameter pipes laid in and including trenches exceeding 1m not exceeding 2 m deep.	m	50		
<u>Extra over Class 12 PVCU pressure pipes for solvent welded pressure fittings:</u>					
12	75mm Bend.	No	4		
13	75mm Equal Tee	No	1		
14	140mm Bend.	No	11		
15	140mm Equal Tee	No	2		
<u>Extra over Class 12 PVCU pressure pipes for cast iron pressure fittings:</u>					
16	75 x 40mm Reducing Tee.	No	1		
17	110 x 75mm Reducing Tee.	No	1		
18	140 x 110mm Reducing Tee.	No	1		
19	75mm Saddle including nuts and bolts and drilling boss and pipe.	No	1		
20	140mm Saddle including nuts and bolts and drilling boss and pipe.	No	1		
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		Unit	Quantity	Rate	Amount
21	75mm Cast iron to PVC flange adaptor drilled to table including connecting bolts, gaskets, etc.	No	1		
22	140mm Cast iron to PVC flange adaptor drilled to table including connecting bolts, gaskets, etc.	No	1		
23	140mm Cast iron Hydrant tee drilled to table 10 SABS 1123 including connecting bolts, gaskets, etc.	No	3		
<u>WATER METER AND PIPE FITTINGS</u>					
<u>80mm Diameter water meter and pipe fittings installation within and around the meter chamber, all in accordance with Engineers Drawing No 35016/C20246/001 - Water & Fire Reticulation Details :</u>					
24	100mm Diameter VJ Flanged adaptor stepped coupling to suit 110mm Municipal main, bolted on.	No	1		
25	75mm Diameter stainless steel Grade 304 reducing tee, flanged all ends to SABS 1123 T16.	No	1		
26	438mm Long x 75mm diameter stainless steel Grade 304 extension piece flanged both ends.	No	2		
27	Denzo wrapped pipe protection to 75mm pipe 220mm long through one brick wall.	No	2		
28	75mm Ø Class 16 RSV SABS 664 Gate Valve right hand closing with valve cap flanged to SABS 1123 T16.	No	1		
29	100 x 80mm Diameter S/S Grade 304 Eccentric reducer flanged both ends to SABS 1123 T16.	No	1		
30	80mm Diameter Flange adaptor flanges to SABS 1123 T16.	No	1		
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		Unit	Quantity	Rate	Amount
31	640mm Long x 80mm diameter stainless steel Grade 304 extension piece flanged both ends to SABS 1123 T16.	No	1		
32	80mm Diameter bulk water meter 'Helix 4000' or equally approved, with pulse output flanged both ends to SABS 1123 T16.	No	1		
33	235mm Long x 80mm diameter stainless steel Grade 304 extension piece flanged both ends to SABS 1123 T16.	No	1		
34	75mm Diameter cast iron swing type Non-Return Valve.	No	1		
35	75mm Diameter VJ Flanged adaptor to suit 75mm main pipeline, bolted on.	No	1		
36	15Mpa Concrete haunching support under water meter and valves, etc.	No	1		
37	Water Meter Chamber/Manhole for water meter and isolating valve, size 2490 x 1340mm wide overall x 1100mm deep, formed of 220mm brick wall sides in 1:3 cement mortar with and including brickforce every second course all round on and including 150mm thick 25/19Mpa concrete base with and including mesh ref 245 placed centrally, rendered internally in 1:5 cement plaster 10mm thick and with 150mm thick 30/19Mpa reinforced concrete surround slab on top including all reinforcing, rebated for and fitted with and including 2 Off Type 1B manhole covers and frames complete with locking devices as per Municipal details, all in accordance with SABS 558, bedded in 1:3 cement mortar and sealed in tallow including all necessary channels and fittings, excavations, filling, formwork, holes through sides for pipes, concrete encasing around pipes through side of manhole, etc. (See 80mm Water Meter Installation Details as per Engineering Standard Details Drawing 35016/C20246/001 - Water & Fire Reticulation Details).	No	1		
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		Unit	Quantity	Rate	Amount
38	Extra for 200mm Diameter drain to water meter manhole base with 13mm No-fines concrete.	No	1		
<u>ISOLATION VALVES AND FITTINGS</u>					
<u>'Valves, etc':</u>					
<u>Note:</u>					
All valves shall be coated and lined by means of a powder (sintered) epoxy coating with a dry film thickness of at least 250 micron without holidays.					
All valves, connecting pipe specials and fittings that show any surface corrosion shall be cleaned and protected to the Engineer's satisfaction.					
Sluice Valves shall be the resilient seal type water works pattern gate valve able to operate successfully under a maximum unbalanced static pressure of 1.6MPa. The valve body and other components shall comply with SABS 664/665, the valve shall be of the nonrising spindle type with clockwise closing and generally plain ended for installation in uPVC pipe lines.					
Valves shall all be provided with spindle caps for use with keys unless stated or indicated to the contrary.					
The valve gate shall be covered with a Nitrile rubber resilient seal. Spindles shall be manufactured from heat treated stainless steel grade 420S29, bonnet and gate shall be manufactured out of Spheroidal Graphite Iron Grade 420/12.					
All graphite iron and steel surfaces to be epoxy powder coated.					
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		Unit	Quantity	Rate	Amount
	<u>Valves, etc.</u>				
39	40mm Diameter RSV flanged cast iron gate valve Class 16 Right hand closing including installation on concrete support pad, joints, including cutting pipes where necessary.	No	7		
40	40mm Diameter Non Return Valve including installation on concrete support pad, joints, including cutting pipes where necessary.	No	1		
41	75mm Diameter RSV flanged cast iron gate valve Class 16 Right hand closing including installation on concrete support pad, joints, including cutting pipes where necessary.	No	3		
42	75mm Diameter Non Return Valve including installation on concrete support pad, joints, including cutting pipes where necessary.	No	2		
43	140mm Diameter RSV flanged cast iron gate valve Class 16 Right hand closing including installation on concrete support pad, joints, including cutting pipes where necessary.	No	2		
44	140mm Diameter Non Return Valve including installation on concrete support pad, joints, including cutting pipes where necessary.	No	2		
	<u>Valve Chambers, etc.</u>				
45	Valve chambers for Isolating Gate Valves size 810 x 810mm overall not exceeding 1m deep, consisting of SABS 558 Type 3A cast iron valve cover size 100 x 230 x 300mm, on 230mm brick footing on well compacted filling and corbelled 115mm brickwork with mortar, including excavations, backfilling, carting away surplus material, etc. - (See Isolating Valve Details as per Engineering Standard Details Drawing 35016/C20246/001 - Water & Fire Reticulation Details).	No	17		
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		Unit	Quantity	Rate	Amount
<u>FIRE HYDRANTS, ETC.</u>					
<u>Fire Hydrants, etc:</u>					
46	80mm Diameter Fire Hydrant complete, including 80 x 65mm Brass right angle shielded spindle fire hydrant Woodlands type valve with cap and chain, 80 x 63mm diameter brass reducer and transition coupler with brass male thread and brass reducer bush to suit fire hydrant, 80mm tapered thread for B.S.P, including 80mm diameter galvanised pipework approximately 1500mm high with 80mm diameter galvanised long radius bend, approximately 1000mm long 80mm diameter pipework in ground Denso wrapped and fitted to main pipeline with hydrant tee (elsewhere measured), fitted to or encased in concrete hydrant pedestal (elsewhere measured), all as per SANS 1128-1/SANS 1128-2. - (See Fire Hydrant Details as per Engineering Standard Details Drawing 35016/C20246/001 - Water & Fire Reticulation Details).	No	2		
47	80mm Diameter Fire Hydrant Booster Pump Connection complete, including 100 x 100mm Brass 'Y' Piece with 100 x 80mm Woodlands type screwed bushing with caps and chains and 80mm x 15 Bar Pressure Guage, 80 x 63mm diameter brass reducer and transition coupler with brass male thread and brass reducer bush to suit fire hydrant, 80mm tapered thread for B.S.P, including 80mm diameter galvanised pipework approximately 1500mm high with 80mm diameter galvanised long radius bend, approximately 1000mm long 80mm diameter pipework in ground Denso wrapped and fitted to main pipeline with hydrant tee (elsewhere measured), fitted to or encased in concrete hydrant pedestal (elsewhere measured), all as per SANS 1128-1/SANS 1128-2. - (See Fire Hydrant Details as per Engineering Standard Details Drawing 35016/C20246/001 - Water & Fire Reticulation Details).	No	1		
48	Extra for supplying hydrant keys to suit.	No	3		
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		Unit	Quantity	Rate	Amount
49	Extra for supplying each hydrant with Red Storage Box complete, fitted next to fire hydrant in accordance with SANS 1128-2, box containing 30m canvas fire hose including all connection fittings, couplings and 16mm internal diameter nozzle.	No	3		
	<u>Fire hydrant pedestals:</u>				
50	Reinforced concrete 25Mpa/19mm hydrant pedestal 700mm high above ground, cast around vertical 80mm diameter galvanised water pipe with bottom 1000mm minimum below ground level, 440 x 440mm square at base and tapering to octagonal shaped top 240 x 240mm overall including all necessary excavation, smooth off shutter formwork, concrete, 4 x Y12 reinforcing bars vertically, finished smooth off shutter and painted two coats of approved golden yellow B.S.S. 356 paint to exposed surfaces. - (See Fire Hydrant Details as per Engineering Standard Details Drawing 35016/C20246/001 - Water & Fire Reticulation Details).	No	3		
	<u>SUNDRIES</u>				
	<u>Sundries:</u>				
51	Extra over excavation in earth for pipe trenches, manholes, etc for excavation in soft rock.	m ³	10		
52	Extra over excavation in earth for pipe trenches, manholes, etc for excavation in hard rock.	m ³	5		
53	Extra over backfilling to drain pipe trenches, manholes, etc for selected approved imported earth backfilling, supplied by the Contractor.	m ³	15		
54	Extra over excavation for pipe trenches, manholes, etc for carting away surplus material (where imported filling used) to a dumping site to be located by the Contractor.	m ³	15		
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		Unit	Quantity	Rate	Amount
55	Standard 200 x 200 x 40mm Thick 25/13Mpa precast concrete pipeline route markers complete with 150 x 150mm recessed section for and including 35 x 50mm High pipeline lable lettering, marker set level in ground, to route of underground pipes, including all excavations, backfilling, carting away, etc. and painted above ground with one coat primer and two coats enamel based paint once erected. - (See Pipeline Marker Set in Concrete Surface Details as per Engineering Standard Details Drawing 35016/C20246/001 - Water & Fire Reticulation Details).	No	20		
56	Supply of valve key with 1200mm extension.	No	3		
57	15Mpa Concrete encasement to pipes or thrustblocks including formwork, etc.	m³	4		
58	Locating, exposing and cutting into existing 110mm AC Domestic water main line and connecting new 75mm PVCU pipe line including making good, etc.	Item			
59	Locating, exposing and cutting into existing 110mm AC Fire water main line and connecting new 140mm PVCU pipe line including making good, etc.	Item			
<u>TESTING</u>					
<u>Testing:</u>					
60	Testing complete water and fire pipe line systems.	Item			
<u>Disinfecting:</u>					
61	Disinfecting water pipe and tank system.	Item			
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Water And Fire Reticulation					

		Unit	Quantity	Rate	Amount
<u>PUMPS, ETC</u>					
Descriptions of pumps shall be deemed to include connections to water and electrical supply and/or discharge points, vibration insulation mountings, insulation, drip trays with outlets, pressure gauges, etc					
<u>Fire Pump Set :</u>					
62	Fire Hose Reel Pump set 90 l/min @ 3.5 Bar, installed on fire reticulation line, complete as per Mechanical Engineers detailed specifications.	No	1		
63	500 x 500mm Square security cage protection cover to pump, consisting of Y10 galvanised steel bars with an aluminium roof sheet to top of cage and a flexible lockable system/lockable hinged door, fixed to concrete slab with bolts, etc.	No	1		
64	Testing and commissioning of pump, including handing over all manuals, warranties, etc.	Item			
Carried to Collection				R	
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Bill No. 5					
Water And Fire Reticulation					

BILL NO. 5
WATER AND FIRE RETICULATION
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	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 7</u></p> <p><u>EXTERNAL WORKS - EXISTING OFFICES</u></p> <p><u>(PROVISIONAL)</u></p> <p><u>BILL NO. 6</u></p> <p><u>RETAINING WALL STRUCTURES AND ACCESS RAMPS</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>NOTE:</u></p> <p>Where items in this Bill are identical to those in a previous Bill, the descriptions have been shortened and the Supplementary Preambles omitted, and therefore the full descriptions in the Trades concerned together with the relevant Supplementary Preambles, are to be referred to for the full meaning and intent of each item.</p>				
Carried to Collection			R	
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Retaining Wall Structures And Access Ramps				
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		Unit	Quantity	Rate	Amount
<u>THE FOLLOWING IN RETAINING STRUCTURES, ACCESS RAMPS, ETC.</u>					
<u>DEMOLITIONS</u>					
<u>Cutting through:</u>					
1	100mm Thick unreinforced concrete surface bed for 750mm wide concrete wall footings and making good concrete on one sides of new 280mm brick walls, including floating concrete surface to match existing.	m	32		
<u>Break up and remove :</u>					
2	100mm Thick concrete surface beds, paving, etc.	m ³	2		
3	Reinforced concrete in steps, etc.	m ³	1		
4	One brick plastered retaining wall.	m ²	3		
<u>EXCAVATION OTHER THAN BULK</u>					
<u>Excavation in earth not exceeding 2m deep:</u>					
5	Open face excavation to reduce levels on site.	m ³	25		
6	Reduced levels under steps, ramps, etc.	m ³	9		
7	Trenches for retaining walls.	m ³	29		
<u>Extra over excavations other than bulk in earth for excavation in:</u>					
8	Soft rock.	m ³	4		
Carried to Collection				R	
Section No. 7					
Bill No. 6					
Retaining Wall Structures And Access Ramps					

		Unit	Quantity	Rate	Amount
	<u>Filling with approved G7 material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:</u>				
17	Under steps and ramps.	m ³	4		
18	Backfilling behind retaining walls, etc.	m ³	4		
	<u>Filling with approved G5 material supplied and carted onto site by the Contractor, compacted to a density of at least 98% Mod. AASHTO maximum density:</u>				
19	Under steps and ramps.	m ³	7		
20	Under surface beds, aprons, etc.	m ³	2		
	<u>Surface Preparation:</u>				
21	Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, steps, ramps, etc including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 93% Mod. AASHTO maximum density, part to falls.	m ²	40		
	<u>KEEPING EXCAVATIONS FREE OF WATER</u>				
	<u>Keeping excavations free of water:</u>				
22	Keeping excavations free of all water other than subterranean water.	Item			
Carried to Collection				R	
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Retaining Wall Structures And Access Ramps					

		Unit	Quantity	Rate	Amount
<u>TESTS</u>					
<u>Prescribed density tests on filling:</u>					
23	Modified AASHTO Density test.	No	4		
<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>					
<u>15Mpa/19mm Concrete</u>					
24	Surface blinding under strip footings, etc.	m ³	1		
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>					
<u>25 MPa/19mm Concrete:</u>					
25	Strip footings.	m ³	7		
26	External steps, etc.	m ³	1		
27	Surface beds, aprons, etc.	m ³	2		
28	Ramps, etc, cast to falls.	m ³	3		
<u>REINFORCED CONCRETE</u>					
<u>25 MPa/19mm Concrete:</u>					
29	Infill to cavity in retaining brick walls.	m ³	3		
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Retaining Wall Structures And Access Ramps					

		Unit	Quantity	Rate	Amount
<u>TEST BLOCKS</u>					
<u>Test blocks:</u>					
30	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	5		
<u>FINISHING TOP SURFACE OF CONCRETE</u>					
<u>Finishing top surfaces of concrete to an even non-slip finish:</u>					
31	Steps, treads and risers, etc.	m ²	4		
32	Surface beds, aprons, etc.	m ²	16		
33	Ramps, etc.	m ²	20		
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
<u>Rough Formwork to Sides:</u>					
34	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	15		
<u>REINFORCEMENT, ETC. (PROVISIONAL).</u>					
<u>Steel reinforcement to structural concrete work:</u>					
35	In varying diameter bars.	Tonnes	0,84		
Carried to Collection				R	
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Retaining Wall Structures And Access Ramps					

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		Unit	Quantity	Rate	Amount
<u>SUBSOIL DRAINAGE, ETC.</u>					
<u>Sub soil drainage:</u>					
51	32mm Diameter PVC weephole/spit pipe approximately 400mm long, built into 280mm retaining walls at 1500mm centres, including positioning pipe in 19mm stone drain behind retaining wall.	No	25		
52	100mm Diameter Geopipe/Subsoil perforated pipe laid behind retaining walls including 19mm crushed stone encasing size 200 x 200mm and bidum geofabric (U24/A3) filter blanket wrapped around encasing with 150mm side and 300mm end laps including stitching.	m	38		
Carried to Collection				R	
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BILL NO. 6
RETAINING WALL STRUCTURES AND ACCESS RAMPS
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	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 7</u></p> <p><u>EXTERNAL WORKS - EXISTING OFFICES</u></p> <p><u>(PROVISIONAL)</u></p> <p><u>BILL NO. 7</u></p> <p><u>BUILDERS WORKS FOR CONDENSER PLINTH</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>NOTE:</u></p> <p>Where items in this Bill are identical to those in a previous Bill, the descriptions have been shortened and the Supplementary Preambles omitted, and therefore the full descriptions in the Trades concerned together with the relevant Supplementary Preambles, are to be referred to for the full meaning and intent of each item.</p> <p><u>THE FOLLOWING IN BUILDERS WORK FOR EXTERNAL CONDENSER PLINTH SLAB</u></p> <p><u>SITE CLEARANCE, ETC.</u></p>				
1				
Clearing the area of the site to be built upon of all grass, weeds, shrubs, trees with trunks not exceeding 200mm girth, debris, etc., including grubbing up all roots, scaffolding up as required and cart away all vegetation and debris.	m ²	12		RATE ONLY
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<u>(PROVISIONAL)</u>				
<u>BILL NO. 8</u>				
<u>TEMPORARY BARRIERS, SCREENS, ETC.</u>				
<u>PREAMBLES</u>				
<p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p>				
<u>SUPPLEMENTARY PREAMBLES</u>				
<p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p>				
<u>Temporary works during construction :</u>				
<p>The contractor is to allow for all temporary access gates as required by themselves under site establishment, no claim will be entertained whatsoever in this regard</p>				
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Temporary Barriers, Screens, Etc.				
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	Unit	Quantity	Rate	Amount
<u>TEMPORARY BARRIERS, SCREENS, HOARDINGS, ETC.</u>				
<u>Temporary barriers, screens, hoardings, etc., including removal as necessary :</u>				
1 Hoarding 2400mm high consisting of 150mm diameter tanalith treated timber posts strapped with stainless steel timber strapping spaced at 3000mm centres and planted in and including 20MPa/19mm concrete bases size 400 x 400 x 500mm deep on 100mm sandbed and timber post with black DPC membrane wrapping at bases, with and including Steel IBR 0.58mm thick ISQ 300 Z275 galvanized steel side cladding sheeting with chromadek finish to one side and protective primer coating on reverse side fixed by roofing screws to and including 152 x 38mm horizontal tanalith treated timber battens at 1000mm centres fixed to vertical poles, including all corners, ends, etc. (See Engineers Detail 35016/C20246/DET/007). (See Work to be done by SMME).	m	116		RATE ONLY
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Temporary Barriers, Screens, Etc.				
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Temporary Barriers, Screens, Etc.

SECTION NO. 7
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SECTION NO 8

DECANTING SITE (PROVISIONAL)

SECTION NO. 8

DECANTING SITE (PROVISIONAL)

BILL NO. 1

SITE CLEARANCE AND BULK EARTHWORKS

PREAMBLES

For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.

Note :

All Earthworks shall be done in accordance with the SANS 1200 specifications.

Nature of ground:

The Tenderer must acquaint himself with the nature of the material to be excavated.

The nature of the ground is assumed to be loose fine to medium sandy material, therefore earth, but possibly interspersed with hard rock or soft rock.

Carting away of excavated material:

Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.

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Site Clearance And Bulk Earthworks

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	Unit	Quantity	Rate	Amount
<p><u>Dewatering of Excavations</u></p> <p>The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping , baling or otherwise.</p> <p>Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water.</p> <p><u>Density testing on filling</u></p> <p>Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved</p> <p>When additional testing is done on instruction of the Architect and these tests are successful, they will be paid for additionally.</p> <p><u>Old materials to become the property of the Contractor :</u></p> <p>Old materials from the demolitions, except where described to be re-used or handed over, become the property of the Contractor who must allow credit for the same in the Final Summary of these Bills of Quantities.</p> <p><u>Old materials to be carted away:</u></p> <p>Old materials from demolitions except where described to be re-used or handed over, as well as all rubbish, etc., must be regularly carted from the site and not to be allowed to accumulate on or around the site.</p>				
<p>Section No. 8</p> <p>Bill No. 1</p> <p>Site Clearance And Bulk Earthworks</p>	Carried to Collection		R	

	Unit	Quantity	Rate	Amount
<p><u>Old materials not to be re-used :</u></p> <p>None of the old materials are to be used for new work except where specifically described being set aside for re-use.</p> <p><u>Handing over of materials :</u></p> <p>Where certain materials or articles from demolitions or articles are described as to be handed over by the Contractor to the Regional Representative or Representative/Agent, such materials or articles shall be properly stored by the Contractor, untill handing over thereof. The Contractor must obtain an official receipt listing the materials or articles and dates of handing over. If the Contractor fails to submit the receipt when requested, it shall be deemed that the materials or articles are still in his possession and he will be held liable to the Client for the full replacement value thereof, which amount will be deducted from any monies due to the Contractor.</p> <p><u>Explosives</u></p> <p>No explosives whatsoever may be used for demolition purposes unless otherwise stated</p> <p><u>General :</u></p> <p>Before starting work, the Contractor shall carry out a thorough survey and examination of the buildings or structures to be demolished and satisfy themselves as to the nature and requirements of the contract. The Contractor is to locate and mark the positions of existing services affected by the demolitions. No extra's will be allowed due to the Contractor's failure to carry out the above.</p>				
<p>Carried to Collection</p>			R	
<p>Section No. 8</p> <p>Bill No. 1</p> <p>Site Clearance And Bulk Earthworks</p>				

	Unit	Quantity	Rate	Amount
<p>Water supply pipes and other piping in ground that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings to the satisfaction of the principal agent</p> <p>Burning of materials arising from the demolitions will not be permitted on site.</p> <p>All sizes given for demolitions are approximate and are to be confirmed on site.</p> <p><u>DEMOLITIONS. ETC.</u></p> <p><u>Taking up and removing :</u></p>				
1 40mm Diameter HDPE underground water supply pipe, including excavations exceeding 1m not exceeding 2m deep, backfilling and cart way of surplus material to dump site and compacting fill to required density, and including disconnecting water pipe both ends and placing stop end to stop supply.	m	39		
<p><u>SITE CLEARANCE, ETC.</u></p> <p><u>Site clearance, etc.:</u></p>				
2 Allow for clearing the area of the site to be built upon of all grass, weeds, shrubs, trees with trunks not exceeding 200mm girth, debris, etc., including grubbing up all roots, scoffling up as required and cart away all vegetation and debris.	m ²	1 650		
3 Strip topsoil layer average 150mm thick and stockpile on site for later re-use or cart away to dump site.	m ³	248		
Carried to Collection			R	
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Bill No. 1				
Site Clearance And Bulk Earthworks				

		Unit	Quantity	Rate	Amount
<u>REMOVAL OF TREES, ETC.</u>					
<u>Taking out and removing, grubbing up roots and filling in holes:</u>					
4	Tree stump exceeding 500mm and not exceeding 1000mm girth.	No	1		
<u>Cut down and remove, grub up roots and fill in holes:</u>					
5	Tree exceeding 500mm and not exceeding 1000mm girth.	No	1		
6	Tree exceeding 1000mm and not exceeding 1500mm girth.	No	1		
<u>BULK EXCAVATION</u>					
<u>Open face excavation in earth over sloping site:</u>					
7	Open face excavation over site to reduce levels for platforms, roadways and parking including spreading and levelling in areas of fill and depositing excavated material over site including haulage not exceeding 1 km from perimeter of excavations.	m ³	556		
<u>Extra over bulk excavation in earth for excavation in:</u>					
8	Soft rock	m ³	28		
9	Hard rock	m ³	14		
Carried to Collection				R	
Section No. 8					
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Site Clearance And Bulk Earthworks					

		Unit	Quantity	Rate	Amount
	<u>RISK OF COLLAPSE OF BULK EXCAVATION</u>				
	<u>Risk of collapse of excavations:</u>				
10	Sides of bulk excavations not exceeding 1,5m deep	m ²	145		
	<u>CARTING AWAY.</u>				
	<u>Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):</u>				
11	In spoil heaps where directed on site.	m ³	556		
12	Off site to a dumping site to be found by the Contractor.	m ³	336		
	<u>COMPACTION OF SURFACES</u>				
	<u>Compaction of surfaces:</u>				
13	In - place treatment of existing or filled material by ripping, scarifying for a depth of 150mm, breaking down oversize material and compacting to 90% Mod AASHTO density.	m ²	1 530		
	<u>EARTH FILLING, ETC.</u>				
	<u>Filling with selected excavated material from excavations on the site, compacted to a density of at least 90% Mod. AASHTO maximum density in 150mm layers:</u>				
14	Over site for platforms.	m ³	143		
15	In landscape mounds, berms, etc, including shaping, compacing as required.	m ³	50		
	Carried to Collection			R	
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	Bill No. 1				
	Site Clearance And Bulk Earthworks				

		Unit	Quantity	Rate	Amount
16	In backfilling behind Kerbing and Edging on sides of roadways and parking areas.	m ³	27		
	<u>Filling with approved G5 sub-base quality material carted onto site by the Contractor, compacted to a density of at least 93% Mod. AASHTO maximum density in 150mm layers:</u>				
17	Over site for roadways, platforms and parking areas.	m ³	230		
	<u>Filling with approved G5 sub-base quality material carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density in 150mm layers:</u>				
18	Over site for roadways, platforms and parking areas.	m ³	230		
	<u>KEEPING EXCAVATIONS FREE OF WATER</u>				
	<u>Keeping excavations free of water:</u>				
19	Keeping excavations free of all water other than subterranean water.	Item			
	<u>TESTS</u>				
	Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Architect/Engineer and these tests are successful, they will be paid for additionally.				
	<u>Prescribed density tests on filling:</u>				
20	Modified AASHTO Density test.	No	10		
Carried to Collection				R	
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Site Clearance And Bulk Earthworks					

		Unit	Quantity	Rate	Amount
21	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	10		
22	Maximum dry density and optimum moisture content test in accordance with method A7 of TMH 1	No	10		
<u>GRASSING, ETC.</u>					
<u>Ground preparation:</u>					
23	Cultivation and preparation of areas to be planted, including general shaping and trimming of ground.	m ²	400		
<u>Topsoil, compost, lime and fertilizer:</u>					
24	Topsoil obtained from prescribed stock piles on site spread and levelled to average 150mm thick to areas around structures where directed and including in-place treatment of filled topsoil material by ripping, scarifying for a depth of 150mm and breaking down oversize material.	m ²	400		
<u>Fertilizing:</u>					
25	Fertilize garden top soil with 3:2:1 super phosphate spread at a rate of 1kg/10m ² including working evenly into top 20mm depth of soil.	m ²	400		
<u>Grassing of Kikuyu grass or equally approved roots in rows over site:</u>					
26	Kikuyu grass or equally approved runners over topsoiled areas including watering and maintenance, etc until Practical/Sectional Completion of the project, 3 months maintenance period after practical / Sectional completion elsewhere measured.	m ²	400		
Carried to Collection				R	
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<p><u>SECTION NO. 8</u></p> <p><u>DECANTING SITE (PROVISIONAL)</u></p> <p><u>BILL NO. 2</u></p> <p><u>ROADWORKS AND PARKING AREAS</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>Nature of ground:</u></p> <p>The Tenderer must acquaint himself with the nature of the material to be excavated.</p> <p>The nature of the ground is assumed to be loose fine to medium sandy material, therefore earth, but possibly interspersed with hard rock or soft rock.</p> <p>In most areas the nature of the ground is assumed to be well compacted filling as a result of platforms created under Bulk Earthworks, therefore 'earth'.</p> <p><u>Carting away of excavated material:</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.</p>				
Carried to Collection			R	
Section No. 8				
Bill No. 2				
Roadworks And Parking Areas				

	Unit	Quantity	Rate	Amount
<u>Dewatering of Excavations</u>				
The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping , baling or otherwise.				
Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water.				
<u>Density testing on filling</u>				
Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved				
When additional testing is done on instruction of the Architect/Engineer and these tests are successful, they will be paid for additionally.				
<u>Note:</u>				
All Earthworks shall be done in accordance with the SANS 1200 specifications.				
Refer to the relevant sections in SANS 1200 Mk for the specification of roadworks which will apply in this Bill.				
Site Clearance and Bulk Earthworks has been elsewhere measured under the Site Clearance and Bulk Earthworks Bill. All work in this bill is measured from the cleared, excavated and filled platform level.				
Carried to Collection			R	
Section No. 8				
Bill No. 2				
Roadworks And Parking Areas				

		Unit	Quantity	Rate	Amount
<u>ROADWORKS, PAVINGS, ETC.</u>					
<u>SOIL POISONING</u>					
<u>Approved brand of weedkiller mixed and applied strictly in accordance with the manufacturer's instructions :</u>					
1	Under paving, to access road and parking area, etc.	m ²	190		
	All block paving to be inspected and resanded after 3 months.				
	Paving to be laid in accordance with SANS 1200MJ, SABS 1058 and the Concrete Manufacturers Association's specifications.				
	Block paving to be manufactured in accordance with SABS Specification 1058 to the following compressive strength:				
	Class 25 or 35MPa or as specified by the Engineer.				
	Clean dry jointing sand complying with SANS 1200MJ is to be swept into joints between roadstones.				
	Paving to be installed with a minimum longitudinal fall of 1% and a transverse fall of at least 2%.				
	Clean dry bedding sand complying with SANS 1200D to be laid under paving.				
Carried to Collection				R	
Section No. 8					
Bill No. 2					
Roadworks And Parking Areas					

		Unit	Quantity	Rate	Amount
<u>BOND AND INTERLOCKING CONCRETE BLOCK PAVERS</u>					
<u>Paving of 80mm thick Type S-A Class 25 Approved Precast Concrete interlocking paving blocks, size 200 x 100 x 80mm Thick, (Coloured to Architects later specification) laid in herringbone pattern on and including 25mm thick compacted river sand bed with fine dry filler jointing sand swept and vibrated into joints all laid on subgrade (elsewhere measured conforming to SABS 1200D degree of accuracy I :</u>					
2	Paving to access road and parking areas to falls.	m ²	190		
3	Fair circular cutting and waste to paving.	m	3		
<u>CONCRETE EDGE BEAM, ETC.</u>					
<u>Excavation not exceeding 2m deep:</u>					
4	For edge beam to roadways.	m ³	1		
<u>Extra over all excavations for carting away</u>					
5	Surplus material from excavations to a dumping site to be located by the contractor.	m ³	1		
<u>30MPa/19mm Reinforced concrete:</u>					
6	In edge beams to roadways.	m ³	1		
<u>Finishing top surfaces of concrete with a wood float:</u>					
7	Top of edge beams.	m ²	4		
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		Unit	Quantity	Rate	Amount
	<u>Rough formwork:</u>				
8	Edges not exceeding 300mm high.	m	26		
	<u>Fabric reinforcement :</u>				
9	Type 193 fabric reinforcement in concrete edge beams, etc.	m ²	4		
	<u>CONCRETE DRIVEWAY PAVING, ETC</u>				
	<u>30MPa/19mm reinforced concrete</u>				
10	Paving to parking area, roadway/yard, etc in panels between construction joints etc	m ³	20		
	<u>Finishing top surfaces of concrete with a pan power float and a coarse hard grass broom</u>				
11	Paving to parking area, roadway/yard, etc to falls	m ²	135		
	<u>Saw-cut joints</u>				
12	3 x 65mm Saw-cut joints in top of concrete	m	59		
13	6 x 30mm Saw-cut joints in top of concrete	m	59		
	<u>Expansion joints with 8mm jointex or bitumen impregnated softboard through concrete paving</u>				
14	Paving not exceeding 300mm thick	m	53		
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		Unit	Quantity	Rate	Amount
	<u>Construction joints through concrete, including bitumen applied to first concrete face prior to casting of adjacent slab, with and including 115 x 115 x 6mm galvanised steel plate dowels placed at 450mm centres, parallel to each other and square to the face of the joint with bond breaking compound applied to dowels before the 2nd pour.</u>				
15	Paving not exceeding 300mm thick	m	59		
	<u>Fabric reinforcement</u>				
16	Type 395 fabric reinforcement in concrete paving etc	m ²	135		
	<u>Grey polyurethane joint sealant, including backing cord, bond breaker, primer, etc</u>				
17	6 x 10mm In saw - cut joints.	m	59		
18	8 x 15mm In expansion joints, including raking out expansion joint filler as necessary	m	53		
	<u>KERBING CHANNELS, ETC.</u>				
	<u>Precast concrete kerbing finished smooth on exposed surfaces including bedding, jointing and pointing, etc.</u>				
19	Standard Kerb (SABS 927-1969 Fig 3) 125/150 x 300mm high overall laid upright on and including 200 x 50mm thick unreinforced 15/13Mpa concrete bedding, with 150 x 300mm unreinforced concrete haunching at back of each joint in kerbing, including all excavation, backfilling, etc.	m	87		
20	Ditto but circular on plan not exceeding 4m radius formed with short lengths of straight kerbing including all excavations, backfilling, etc.	m	3		
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		Unit	Quantity	Rate	Amount
21	Standard Sunken Kerb (SABS 927-1969 Fig 10) 100 x 250mm high overall sunken on and including 200 x 50mm thick unreinforced 15/13Mpa concrete bedding, with 150 x 300mm unreinforced concrete haunching at back of each joint in kerbing, including all excavation, backfilling, etc.	m	34		
	<u>PAINTING, ETC.</u>				
	<u>Prepare surfaces, wash thoroughly, remove loose material, leave to dry and apply two coats Road Marking' acrylic road marking paint to roadways and parking areas all in accordance with Standard Provincial Road Practice including all setting out to:</u>				
22	100mm Wide solid white line to precast concrete paved roadways and parking.	m	45		
23	Standard "STOP" sign markings to precast concrete paved roadways and parking.	No	2		
24	Standard "DISABLED" sign markings to precast concrete paved roadways and parking.	No	2		
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		Unit	Quantity	Rate	Amount
<u>ROAD SIGNAGE</u>					
<u>Traffic sign to Standard Roads Department Specification (SARTSM) comprising reflective face on aluminium reinforced backing fixed to and including 125 -150mm diameter bitumen impregnated creosote pole 3 900mm long with and including stainless steel strapping 16mm wide to top and bottom of pole and including two 40mm diameter breakaway holes drilled through 150mm creosote pole one at 150mm and other at 450mm above finished ground level. Pole to be set in compacted stabilized selected backfill material with 1:12 cement, soil ratio compacted in 100mm layers to 90% Mod. AASHTO maximum density in base size 900mm diameter x 700mm deep with and including all excavations and removal of surplus excavated material from site.</u>					
25	"10 Km\h Speed Limit" Prohibition sign as R201	No	2		
26	"No Trucks" Prohibition sign as R229	No	1		
27	"Parking" Reservation sign as R305P	No	2		
28	"Stop" Controll sign as R1	No	2		
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	Unit	Quantity	Rate	Amount
<u>Exposed concrete surfaces:</u>				
Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.				
<u>Excavations:</u>				
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.				
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.				
<u>Laying, backfilling, bedding, etc of pipes:</u>				
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.				
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS 1200.				
<u>CONCRETE STORMWATER CHANNELS ETC</u>				
<u>25/19Mpa Concrete stormwater channels :</u>				
1		450 x 150mm Surface Drain Channel with 60mm deep V-shaped channel formed therein and finished smooth on exposed surfaces including Ref 193 mesh reinforcing, necessary excavation, compaction and formwork, etc.	m	140
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		Unit	Quantity	Rate	Amount
2	Extra over for angles, intersections, ends, dressing into sides of catchpits, etc	No	14		
	<u>Grey polysulphide joint sealant, etc</u>				
3	6 x 30mm In expansion joints between concrete surfaces	m	87		
	<u>STORMWATER DRAINAGE</u>				
	<u>uPVC SABS approved underground stormwater pipes with interlocking socket joints and short lengths to falls in ground, including excavating, backfilling, compacting to 93% modified AASHTO dry density and including all nessasary risk of collapse and dewatering of trenches:</u>				
4	300mm Diameter stormwater pipes laid in and including trenches 650mm wide and exceeding 1m and not exceeding 2m deep including 100mm selected grandular material bedding below and 750mm selected fill material around pipe, with suitable backfill material above.	m	25		
	<u>Sumps, catchpits, inspection chambers, manholes etc (gratings and covers elsewhere):</u>				
5	Excavate for and build stormwater catchpit complete exceeding 1000mm not exceeding 2000mm deep to form inlet to stormwater reticulation size 650 x 650mm wide overall including 150mm thick 25/19Mpa concrete bottom base with mesh 193 centrally, 220mm brickwork in stocks size 450 x 450mm overall, with 10mm internal plaster, benching to bottom of pit, building in 300mm diameter stormwater pipe and 110mm thick 25/19Mpa concrete cover slab over with mesh 193 centrally, slab to receive 230 x 230mm square dished light duty grating (elsewhere measured) and including all formwork, reinforcement, backfilling, compaction etc . (See Stormwater Catchpit Detail as per Engineering Standard Details Drawing 35016/C20246/DET-008 - Stormwater Catchpit Detail).	No	2		
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		Unit	Quantity	Rate	Amount
	<u>Gratings, covers, etc:</u>				
6	230 x 230mm Light duty square dished grating and frame cast into concrete cover slab.	No	2		
	<u>STORMWATER HEADWALLS, OUTLETS, ETC.</u>				
	<u>The following in Stormwater Headwalls / Outlets, etc :</u>				
7	Excavation in open face to reduce levels for stormwater headwalls and outlets.	m ³	2		
8	Excavation not exceeding 2m deep for trenches below reduced level.	m ³	2		
9	Compaction of ground surfaces under concrete surface beds etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density.	m ²	4		
10	Risk of collapse to sides of excavations not exceeding 1500mm deep.	m ²	10		
11	25 Mpa/19mm Reinforced concrete in surface beds.	m ³	2		
12	25 Mpa/19mm Reinforced concrete in ground beams.	m ³	2		
13	25 Mpa/19mm Reinforced concrete in headwall walls.	m ³	2		
14	Smooth formwork to sides of walls not exceeding 3.5m high.	m ²	16		
15	Finishing top surfaces of concrete smooth with a steel trowel.	m ²	4		
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		Unit	Quantity	Rate	Amount
16	10mm Diameter high tensile bar reinforcing.	Tonnes	0,48		
	<u>GABIONS, ETC.</u>				
	<u>Excavation in earth not exceeding 2m deep:</u>				
17	To reduce levels for gabion reno mattress.	m ³	2		
	<u>Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):</u>				
18	Off site to a dumping site to be found by the Contractor.	m ³	2		
	<u>Gabions of PVC coated galvanised wire boxes laced together and filled with max size 50/75mm broken hard and durable stone all in accordance with the 'Standard Specifications for Road and Bridge Works for State Road Authorities 1998'.</u>				
19	2635 x 1500 x 200mm Thick Reno mattress properly bonded.	m ³	2		
	<u>FILTER FABRIC</u>				
	<u>Kaymat U24 or equally approved non-woven continuous filament needle punch polyester filter fabric with 200mm laps (Subject to Engineers approval prior to ordering):</u>				
20	Under stone filled gabions, reno mattresses, etc, including dressing up sides of excavations to cover full area in continuous layer, and including preparing ground surface.	m ²	12		
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		Unit	Quantity	Rate	Amount
<u>SUNDRIES</u>					
<u>Sundries:</u>					
21	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock.	m ³	4		
22	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock.	m ³	2		
23	Extra over excavation for pipe trenches, chambers, etc for carting away surplus material to a dumping site to be located by the Contractor.	m ³	6		
24	Extra over backfilling to drain trenches, chambers, etc for imported earth G7 backfilling material supplied by the Contractor.	m ³	6		
<u>TESTING</u>					
<u>Testing :</u>					
25	Testing complete stormwater drainage pipe system.	Item			
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	Unit	Quantity	Rate	Amount
<p>Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.</p> <p>Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.</p> <p><u>Exposed concrete surfaces:</u></p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.</p> <p><u>Excavations:</u></p> <p>No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.</p> <p>'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.</p> <p><u>Laying, backfilling, bedding, etc of pipes:</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS 1200.</p>				
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<p>Section No. 8</p> <p>Bill No. 4</p> <p>Soil Drainage And Sewer Reticulation</p>				

		Unit	Quantity	Rate	Amount
<u>SOIL DRAINAGE, SEWER RETICULATION, ETC.</u>					
<u>EXISTING SEWER RETICULATION</u>					
<u>Cleaning of existing sewer reticulation pipeline and manholes:</u>					
1	Cleaning of existing 110mm diameter uPVC sewer reticulation pipeline, by hand, winching or high pressure jetting, to get pipeline into full working condition and all to Engineers approval.	m	35		
2	Cleaning of existing 1000 x 1000mm x approximately 2m deep sewer manhole, by hand or other means, to get manhole into full working condition and all to Engineers approval.	No	2		
<u>NEW SEWER RETICULATION</u>					
<u>uPVC Class 34 sewer pipes:</u>					
3	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation).	m	17		
4	110mm Pipes laid in and including trenches not exceeding 1m deep.	m	86		
5	110mm Pipes laid in and including trenches exceeding 1m not exceeding 2m deep.	m	74		
<u>Extra over uPVC Class 34 pipes for fittings:</u>					
6	110mm Bend.	No	11		
7	110mm Access Bend.	No	18		
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		Unit	Quantity	Rate	Amount
8	110mm Junction.	No	4		
9	110mm Access junction.	No	8		
10	110mm Access double junction.	No	4		
<u>Gulleys:</u>					
11	Precast concrete dished gulley surround including 110mm 'P' trap PVC gulley head and grating, complete, not exceeding 1000mm deep.	No	3		
<u>MANHOLES, INSPECTION CHAMBERS, ETC.</u>					
<u>Sewer Manholes and Inspection Chambers :</u>					
12	Manhole size 1760 x 1760mm wide overall and not exceeding 750mm deep internally to invert level formed of 230mm brick wall sides in 1:3 cement mortar with and including brickforce every third course all round on and including 150mm thick 25/19Mpa concrete base projecting 150mm beyond sides with and including mesh ref 193 placed centrally and mass concrete (25 Mpa at 28 days in 12mm stone) benching, rendered internally in 1:5 cement plaster 10mm thick and with 150mm thick 30/19Mpa reinforced concrete surround slab on top including all reinforcing, rebated for and fitted with and including 900 x 900mm Lockable Polymer concrete cover and frame, bedded in 1:3 cement mortar and sealed in tallow including all necessary channels and fittings, excavations, filling, formwork, holes through sides for pipes, concrete encasing around pipes through side of manhole, etc. (See Sewer Manhole Details as per Engineering Standard Details Drawing 35016/C20246/DET/002 - Sewer Details).	No	4		
13	Ditto, but exceeding 750mm deep and not exceeding 1500mm deep.	No	4		
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		Unit	Quantity	Rate	Amount
<u>SUNDRIES</u>					
<u>Sundries:</u>					
14	110mm PVC straight or skew rodding eye with removable plate cover jointed to 110mm uPVC pipe and set in and including concrete Class 15 Mpa surround size 300 x 500 x 150mm thick with exposed surface trowelled smooth.	No	3		
15	Precast concrete (Class 15 Mpa) block size 500 x 500 x 75mm thick finished smooth on top and four edges with letters "I.E." formed in top, set in ground over top of inspection fitting.	No	3		
16	Extra over excavation in earth for pipe trenches, manholes, etc for excavation in soft rock.	m³	10		
17	Extra over excavation in earth for pipe trenches, manholes, etc for excavation in hard rock.	m³	5		
18	Extra over backfilling to drain pipe trenches, manholes, etc for selected approved imported earth backfilling, supplied by the Contractor.	m³	15		
19	Extra over excavation for pipe trenches, manholes, etc for carting away surplus material (where imported filling used) to a dumping site to be located by the Contractor.	m³	15		
20	Unreinforced concrete class 'B' encasing to 110mm horizontal pipe in ground.	m	6		
21	Cutting into side of existing manhole for and connecting 110mm pipe including inserting 110mm channel junction and making good concrete benching and manhole sides.	No	1		
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Water And Fire Reticulation				

	Unit	Quantity	Rate	Amount
<u>Corrosion Protection:</u>				
<p>External protection of all underground steel pipes, flanges, joints and couplings shall be by means of a 300 micron layer of coaltar epoxy of an approved make. External protection of all above ground steel pipes, flanges, joints and couplings shall be by means of a zinc coating. The finished surface shall be clean and uniform any excess being removed. The zinc deposit shall exceed 0.735 kg/m³.</p>				
<u>Joints, Bolts, Nuts and Washers:</u>				
<p>"Bolts, nuts and washers shall be treated as follows:</p> <p>Bolts and nuts shall be cadmium plated to BS 1706 and shall conform to grade 4.6 of SABS 135 and BS 916.</p> <p>Plain and tapered washers for use with mild steel bolts and nuts shall comply with BS 4320 and will be electro-galvanised to BS 1706.</p> <p>Plain and tapered washers for use with high tensile steel bolts and nuts shall be case hardened with a minimum hardness of Rockwell C-35.</p>				
<u>Corrosive Soil:</u>				
<p>All buried steel pipework and connections to be "DENSO" wrapped.</p> <p>"Fittings and joints shall be protected with 'Denso Tape' or similar approved material.</p> <p>After the joints and fittings have been tested, they shall be liberally and completely coated with 'Denso Paste' and immediately thereafter wrapped with 'Denso Tape'. Wrapping shall commence at a point at least 50mm beyond the opposite side of the joint or fitting. An overlap of at least 25mm shall be given on each turn.</p>				
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<p>Care shall be taken to smooth down the tape so as to avoid air pockets and gaps through which water could penetrate. Any turned or damaged tape shall be replaced or patched to the satisfaction of the Engineer's Representative. The Contractor shall ensure that the wrapping is not damaged during backfilling.</p> <p><u>Galvanising:</u></p> <p>"Galvanised steel pipework, fittings, specials etc. Shall comply with SABS 934 and 763 and be entirely coated with zinc after fabrication by complete immersion in a zinc bath. The finished surface shall be clean and uniform and any excess being removed. The zinc deposit shall exceed the following.</p> <p>Coastal areas 0.735 kg/m3</p> <p>Inland areas 0.400 kg/m3</p> <p>"Coastal areas' shall apply to this contract."</p> <p><u>Pipeline Markers</u></p> <p>Where so instructed by the Engineer or as shown on the drawings, the Contractor shall erect pipeline markers. These markers will be precast concrete units manufactured out of 25 Mpa concrete to the dimensions shown on the drawings and shall comply with SABS 1200 GA Concrete.</p> <p>All markers to receive one primer coat followed by two coats of enamel based paint, colour blue, once erected.</p> <p>Markers are to be erected 300mm off the edge of the pipe trench to the left of the trench and at right angles to the trench centre line at the points as indicated on the pipe longsections.</p> <p>At bends the marker will be erected at the P.I. Point of these 300 mm offset lines.</p>				
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	Unit	Quantity	Rate	Amount
<p><u>Depth and Cover:</u></p> <p>Depth of excavation for pipe trenches shall be as per the drawing. The minimum required cover to the top of collars shall be 600mm.</p> <p><u>Testing:</u></p> <p>General</p> <p>Pipes shall be tested in convenient lengths not exceeding 500m per each test.</p> <p>Testing of Valves</p> <p>All valves shall be pressure tested according to SABS 664 or other applicable code at the appropriate test pressure.</p> <p>No separate payment shall be made for testing of valves and hydrants and the scheduled rates for the supply and installation of valves shall include for all costs in respect of testing.</p> <p><u>Disinfecting:</u></p> <p>All pipes are to be disinfected to a free chlorine count of 8 parts per million.</p> <p>No separate payment shall be made for disinfecting pipes and scheduled rates for piping shall include for all costs in respect of disinfecting.</p> <p><u>Excavations:</u></p> <p>No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.</p>				
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<p>Section No. 8</p> <p>Bill No. 5</p> <p>Water And Fire Reticulation</p>				

	Unit	Quantity	Rate	Amount
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.				
<u>Laying, backfilling, bedding, etc of pipes:</u>				
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' and Engineers instructions.				
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS 1200.				
<u>WATER AND FIRE SUPPLIES, ETC.</u>				
<u>HDPE WATER PIPES</u>				
<u>Class 10 HDPE water pipes :</u>				
1 40mm Diameter pipes laid in and including trenches not exceeding 1m deep.	m	200		
2 40mm Diameter pipes laid in and including trenches exceeding 1m not exceeding 2m deep.	m	91		
<u>Extra over Class 10 HDPE pipes for HDPE pressure fittings :</u>				
3 40mm Reducer	No	15		
4 40mm Bend	No	16		
5 40mm Equal Tee	No	18		
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		Unit	Quantity	Rate	Amount
6	40mm End Cap	No	6		
7	40mm Threaded adaptor	No	24		
<u>UPVC PRESSURE WATER PIPES</u>					
<u>Class 12 PVCU pressure water pipes with flexible couplings:</u>					
8	75mm Diameter pipes laid in and including trenches not exceeding 1m deep.	m	100		
9	75mm Diameter pipes laid in and including trenches exceeding 1m not exceeding 2 m deep.	m	40		
<u>Extra over Class 12 PVCU pressure pipes for solvent welded pressure fittings:</u>					
10	75mm Bend.	No	7		
11	75mm Equal Tee	No	2		
<u>Extra over Class 12 PVCU pressure pipes for cast iron pressure fittings:</u>					
12	75 x 40mm Reducing Tee.	No	1		
13	75 x 50mm Reducing Tee.	No	1		
14	75mm Saddle including nuts and bolts and drilling boss and pipe.	No	2		
15	75mm Cast iron to PVC flange adaptor drilled to table including connecting bolts, gaskets, etc.	No	10		
Carried to Collection				R	
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Water And Fire Reticulation					

		Unit	Quantity	Rate	Amount
16	75mm Cast iron Hydrant tee drilled to table 10 SABS 1123 including connecting bolts, gaskets, etc.	No	2		
<u>WATER METER AND PIPE FITTINGS</u>					
<u>80mm Diameter water meter and pipe fittings installation within and around the meter chamber, all in accordance with Engineers Drawing No 35016-DET-001 - Water & Fire Reticulation Details :</u>					
17	100mm Diameter VJ Flanged adaptor stepped coupling to suit 50mm Municipal main, bolted on.	No	1		
18	75mm Diameter stainless steel Grade 304 reducing tee, flanged all ends to SABS 1123 T16.	No	1		
19	438mm Long x 75mm diameter stainless steel Grade 304 extension piece flanged both ends.	No	2		
20	Denzo wrapped pipe protection to 75mm pipe 220mm long through one brick wall.	No	2		
21	75mm Ø Class 16 RSV SABS 664 Gate Valve right hand closing with valve cap flanged to SABS 1123 T16.	No	1		
22	100 x 80mm Diameter S/S Grade 304 Eccentric reducer flanged both ends to SABS 1123 T16.	No	1		
23	80mm Diameter Flange adaptor flanges to SABS 1123 T16.	No	1		
24	640mm Long x 80mm diameter stainless steel Grade 304 extension piece flanged both ends to SABS 1123 T16.	No	1		
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
25	80mm Diameter bulk water meter 'Helix 4000' or equally approved, with pulse output flanged both ends to SABS 1123 T16.	No	1		
26	235mm Long x 80mm diameter stainless steel Grade 304 extension piece flanged both ends to SABS 1123 T16.	No	1		
27	75mm Diameter cast iron swing type Non-Return Valve.	No	1		
28	75mm Diameter VJ Flanged adaptor to suit 75mm main pipeline, bolted on.	No	1		
29	15Mpa Concrete haunching support under water meter and valves, etc.	No	1		
30	Water Meter Chamber/Manhole for water meter and isolating valve, size 2490 x 1340mm wide overall x 1100mm deep, formed of 220mm brick wall sides in 1:3 cement mortar with and including brickforce every second course all round on and including 150mm thick 25/19Mpa concrete base with and including mesh ref 245 placed centrally, rendered internally in 1:5 cement plaster 10mm thick and with 150mm thick 30/19Mpa reinforced concrete surround slab on top including all reinforcing, rebated for and fitted with and including 2 Off Type 1B manhole covers and frames complete with locking devices as per Municipal details, all in accordance with SABS 558, bedded in 1:3 cement mortar and sealed in tallow including all necessary channels and fittings, excavations, filling, formwork, holes through sides for pipes, concrete encasing around pipes through side of manhole, etc. (See 80mm Water Meter Installation Details as per Engineering Standard Details Drawing 35016-DET-001 - Water & Fire Reticulation Details).	No	1		
31	Extra for 200mm Diameter drain to water meter manhole base with 13mm No-fines concrete.	No	1		
Carried to Collection				R	
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	Unit	Quantity	Rate	Amount
<u>ISOLATION VALVES AND FITTINGS</u>				
<u>'Valves, etc':</u>				
<u>Note:</u>				
All valves shall be coated and lined by means of a powder (sintered) epoxy coating with a dry film thickness of at least 250 micron without holidays.				
All valves, connecting pipe specials and fittings that show any surface corrosion shall be cleaned and protected to the Engineer's satisfaction.				
Sluice Valves shall be the resilient seal type water works pattern gate valve able to operate successfully under a maximum unbalanced static pressure of 1.6MPa. The valve body and other components shall comply with SABS 664/665, the valve shall be of the nonrising spindle type with clockwise closing and generally plain ended for installation in uPVC pipe lines.				
Valves shall all be provided with spindle caps for use with keys unless stated or indicated to the contrary.				
The valve gate shall be covered with a Nitrile rubber resilient seal. Spindles shall be manufactured from heat treated stainless steel grade 420S29, bonnet and gate shall be manufactured out of Spheroidal Graphite Iron Grade 420/12.				
All graphite iron and steel surfaces to be epoxy powder coated.				
<u>Valves, etc.</u>				
32				
40mm Diameter RSV flanged cast iron gate valve Class 16 Right hand closing including installation on concrete support pad, joints, including cutting pipes where necessary.	No	8		
Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
33	40mm Diameter Non Return Valve including installation on concrete support pad, joints, including cutting pipes where necessary.	No	3		
34	75mm Diameter RSV flanged cast iron gate valve Class 16 Right hand closing including installation on concrete support pad, joints, including cutting pipes where necessary.	No	2		
35	75mm Diameter Non Return Valve including installation on concrete support pad, joints, including cutting pipes where necessary.	No	2		
	<u>Valve Chambers, etc.</u>				
36	Valve chambers for Isolating Gate Valves size 810 x 810mm overall not exceeding 1m deep, consisting of SABS 558 Type 3A cast iron valve cover size 100 x 230 x 300mm, on 230mm brick footing on well compacted filling and corbelled 115mm brickwork with mortar, including excavations, backfilling, carting away surplus material, etc. - (See Isolating Valve Details as per Engineering Standard Details Drawing 35016-DET-001 - Water & Fire Reticulation Details).	No	15		
Carried to Collection					
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		Unit	Quantity	Rate	Amount
<u>FIRE HYDRANTS, ETC.</u>					
<u>Fire Hydrants, etc:</u>					
37	80mm Diameter Fire Hydrant complete, including 80 x 65mm Brass right angle shielded spindle fire hydrant Woodlands type valve with cap and chain, 80 x 63mm diameter brass reducer and transition coupler with brass male thread and brass reducer bush to suit fire hydrant, 80mm tapered thread for B.S.P, including 80mm diameter galvanised pipework approximately 1500mm high with 80mm diameter galvanised long radius bend, approximately 1000mm long 80mm diameter pipework in ground Denso wrapped and fitted to main pipeline with hydrant tee (elsewhere measured), fitted to or encased in concrete hydrant pedestal (elsewhere measured), all as per SABS 1128-2/SANS 1128-2. - (See Fire Hydrant Details as per Engineering Standard Details Drawing 35016-DET-001 - Water & Fire Reticulation Details).	No	2		
38	Extra for supplying hydrant keys to suit.	No	3		
<u>Fire hydrant pedestals:</u>					
39	Reinforced concrete 25Mpa/19mm hydrant pedestal 700mm high above ground, cast around vertical 80mm diameter galvanised water pipe with bottom 1000mm minimum below ground level, 440 x 440mm square at base and tapering to octagonal shaped top 240 x 240mm overall including all necessary excavation, smooth off shutter formwork, concrete, 4 x Y12 reinforcing bars vertically, finished smooth off shutter and painted two coats of approved golden yellow B.S.S. 356 paint to exposed surfaces. - (See Fire Hydrant Details as per Engineering Standard Details Drawing 35016-DET-001 - Water & Fire Reticulation Details).	No	2		
Carried to Collection				R	
Section No. 8					
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		Unit	Quantity	Rate	Amount
<u>SUNDRIES</u>					
<u>Sundries:</u>					
40	Extra over excavation in earth for pipe trenches, manholes, etc for excavation in soft rock.	m ³	10		
41	Extra over excavation in earth for pipe trenches, manholes, etc for excavation in hard rock.	m ³	5		
42	Extra over backfilling to drain pipe trenches, manholes, etc for selected approved imported earth backfilling, supplied by the Contractor.	m ³	15		
43	Extra over excavation for pipe trenches, manholes, etc for carting away surplus material (where imported filling used) to a dumping site to be located by the Contractor.	m ³	15		
44	Standard 200 x 200 x 40mm Thick 25/13Mpa precast concrete pipeline route markers complete with 150 x 150mm recessed section for and including 35 x 50mm High pipeline lable lettering, marker set level in ground, to route of underground pipes, including all excavations, backfilling, carting away, etc. and painted above ground with one coat primer and two coats enamel based paint once erected. - (See Pipeline Marker Set in Concrete Surface Details as per Engineering Standard Details Drawing 35016/C20246/001 - Water & Fire Reticulation Details).	No	40		
45	Supply of valve key with 1200mm extension.	No	3		
46	15Mpa Concrete encasement to pipes or thrustblocks including formwork, etc.	m ³	4		
47	Locating, exposing and cutting into existing 50mm MPVC Main water line and connecting new 75mm PVCU pipe line including making good, etc.	Item			
Carried to Collection				R	
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Water And Fire Reticulation					

		Unit	Quantity	Rate	Amount
48	Locating, exposing and cutting into existing water feed into Existing House and conncting new 40mm HDPE pipe to existing house water line including connections and making good, etc.	Item			
49	Locating, exposing and cutting into existing water feed into Existing House Flats conncting new 40mm HDPE pipe to existing house water line including connections and making good, etc.	Item			
<u>TESTING</u>					
<u>Testing:</u>					
50	Testing complete water and fire pipe line systems.	Item			
<u>Disinfecting:</u>					
51	Disinfecting water pipe and tank system.	Item			
<u>WATER STORAGE TANKS, ETC</u>					
<u>JOJO type or equally approved SABS and ECO approved Polyethylene (LLDPE) drinking water tanks with 10 year guarantee :</u>					
52	Re-use 5 000 Litre Circular water tank size 1800mm diameter x 2250mm high, removed from Magistrates Office site, properly cleaned and disinfected and set up in new position complete with 480mm clip on lid, outlet and overflow, connected to other tanks and mounted on top of concrete plinth base and tied down as instructed by manufacturer (concrete base elsewhere measured).	No	3		
Carried to Collection				R	
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Water And Fire Reticulation					

		Unit	Quantity	Rate	Amount
53	5 000 Litre Circular water tank size 1800mm diameter x 2250mm high, complete with 480mm clip on lid, outlet and overflow, connected to other tanks and mounted on top of concrete plinth base and tied down as instructed by manufacturer (concrete base elsewhere measured).	No	1		
54	Outlet union for 40mm HDPE pipe including hole through tank.	No	2		
55	Outlet union for 75mm PVCu pipe including hole through tank.	No	7		
<u>THE FOLLOWING IN BUILDERS WORK FOR WATER TANK PLINTH SLAB</u>					
<u>SITE CLEARANCE, ETC.</u>					
56	Clearing the area of the site to be built upon of all grass, weeds, shrubs, trees with trunks not exceeding 200mm girth, debris, etc., including grubbing up all roots, scoffling up as required and cart away all vegetation and debris.	m ²	28		
57	Strip topsoil layer average 150mm thick and stockpile on site for later re-use.	m ³	4		
<u>EXCAVATION OTHER THAN BULK</u>					
58	Excavate in pickable material to reduce levels for raft foundation base not exceeding 2m deep.	m ³	10		
59	Risk of collapse to sides of raft foundation base not exceeding 1,5m deep.	m ²	9		
60	Trim and level off surface of ground to receive concrete, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 93% Mod. AASHTO maximum density.	m ²	28		
Carried to Collection				R	
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Water And Fire Reticulation					

		Unit	Quantity	Rate	Amount
61	Filling with approved G7 quality material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density in 150mm layers under raft foundation base.	m ³	4		
62	Filling with approved G5 quality material supplied and carted onto site by the Contractor, compacted to a density of at least 98% Mod. AASHTO maximum density in 150mm layers under raft foundation base.	m ³	4		
63	Carting away excavated material off site to a site located by the contractor.	m ³	10		
64	Modified AASHTO prescribed density test on filling.	No	3		
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>					
65	15Mpa Mass Concrete in blinding layer under raft foundation base.	m ³	1		
66	25 Mpa/19mm Reinforced Concrete in raft foundation base.	m ³	5		
67	Steel reinforcement in varying diameters to structural concrete work.	Kg	11		
68	Type 395 fabric mesh reinforcement in concrete raft slabs, paving etc	m ²	21		
69	Smooth formwork to sides of raft base, slabs, etc. ne 300mm high.	m	24		
70	Finishing top surfaces of concrete with a power float.	m ²	21		
Carried to Collection				R	
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Water And Fire Reticulation					

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BILL NO. 5
WATER AND FIRE RETICULATION
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<p><u>SECTION NO. 8</u></p> <p><u>DECANTING SITE (PROVISIONAL)</u></p> <p><u>BILL NO. 6</u></p> <p><u>RETAINING WALL STRUCTURES</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>NOTE:</u></p> <p>Where items in this Bill are identical to those in a previous Bill, the descriptions have been shortened and the Supplementary Preambles omitted, and therefore the full descriptions in the Trades concerned together with the relevant Supplementary Preambles, are to be referred to for the full meaning and intent of each item.</p> <p><u>THE FOLLOWING IN RETAINING WALL STRUCTURES, ETC.</u></p> <p><u>The following in Concrete Retaining Wall Structures :</u></p> <p><u>Excavation in earth not exceeding 2m deep:</u></p>				
1	Trenches for retaining walls.	m ³	38	
Carried to Collection				R
Section No. 8				
Bill No. 6				
Retaining Wall Structures				

		Unit	Quantity	Rate	Amount
<u>EARTH FILLING, ETC.</u>					
<u>Filling with selected material from the excavations compacted to a density of at least 90% Mod. AASHTO maximum density:</u>					
9	Backfilling to trenches, holes, etc.	m ³	14		
10	Behind retaining walls.	m ³	20		
<u>Filling with approved G5 material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:</u>					
11	Behind retaining walls.	m ³	20		
<u>Surface Preparation:</u>					
12	Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, steps including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 90% Mod. AASHTO maximum density.	m ²	64		
<u>KEEPING EXCAVATIONS FREE OF WATER</u>					
<u>Keeping excavations free of water:</u>					
13	Keeping excavations free of all water other than subterranean water.	Item			
Carried to Collection				R	
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Retaining Wall Structures					

		Unit	Quantity	Rate	Amount
<u>TESTS</u>					
<u>Prescribed density tests on filling:</u>					
14	Modified AASHTO Density test.	No	3		
<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>					
<u>15Mpa/19mm Concrete</u>					
15	Surface blinding under strip footings, etc.	m ³	3		
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>					
<u>30MPa/19mm Concrete:</u>					
16	Strip footings to retaining walls.	m ³	19		
<u>REINFORCED CONCRETE</u>					
<u>30MPa/19mm Concrete:</u>					
17	Retaining walls.	m ³	24		
<u>TEST BLOCKS</u>					
<u>Test blocks:</u>					
18	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	7		
Carried to Collection				R	
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Retaining Wall Structures					

		Unit	Quantity	Rate	Amount
<u>FORMWORK (DEGREE OF ACCURACY II)</u>					
<u>Rough Formwork to Sides:</u>					
19	Retaining walls not exceeding 3,5m high.	m ²	81		
<u>Smooth Formwork to Sides:</u>					
20	Retaining walls not exceeding 3,5m high.	m ²	82		
<u>Boxing in smooth formwork to form:</u>					
21	20 x 20mm Chamfers along top or bottom edges.	m	107		
22	20 x 20mm Vertical chamfers at corners.	m	7		
<u>REINFORCEMENT, ETC. (PROVISIONAL).</u>					
<u>Reinforcement to structural concrete work:</u>					
23	Mild & High Tensile steel reinforcement in varying diameter bars.	Tonnes	5,16		
<u>WATERPROOFING TO RETAINING WALLS</u>					
<u>One layer of 350 micron Consol Plastics Hyperlastic Orange waterproof sheeting sealed at laps with Superstik tape:</u>					
24	Vertically behind retaining walls.	m ²	81		
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Retaining Wall Structures					

BILL NO. 6
RETAINING WALL STRUCTURES
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<p><u>SECTION NO. 8</u></p> <p><u>DECANTING SITE (PROVISIONAL)</u></p> <p><u>BILL NO. 7</u></p> <p><u>WALKWAYS, RAMPS AND STAIRS</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>NOTE:</u></p> <p>Where items in this Bill are identical to those in a previous Bill, the descriptions have been shortened and the Supplementary Preambles omitted, and therefore the full descriptions in the Trades concerned together with the relevant Supplementary Preambles, are to be referred to for the full meaning and intent of each item.</p> <p>Site Clearance and Bulk Earthworks has been elsewhere measured under the Site Clearance and Bulk Earthworks Bill. All work in this bill is measured from the cleared, excavated and filled platform level.</p>				
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Walkways, Ramps And Stairs				

		Unit	Quantity	Rate	Amount
<u>WALKWAYS, RAMPS & STAIRS, ETC</u>					
<u>The following in Walkways, Ramps & Stairs:</u>					
<u>EXCAVATION OTHER THAN BULK</u>					
<u>Excavation in earth not exceeding 2m deep:</u>					
1	Reduced levels under steps, ramps, etc.	m ³	12		
2	Trenches for retaining walls.	m ³	28		
<u>Extra over excavations other than bulk in earth for excavation in:</u>					
3	Soft rock.	m ³	2		
4	Hard rock.	m ³	1		
<u>Risk of collapse of excavations other than bulk:</u>					
5	Sides of trench and hole excavations not exceeding 1,5m deep.	m ²	67		
<u>CARTING AWAY.</u>					
<u>Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):</u>					
6	In spoil heaps where directed on site.	m ³	40		
7	Off site to a dumping site to be found by the Contractor.	m ³	27		
Carried to Collection				R	
Section No. 8					
Bill No. 7					
Walkways, Ramps And Stairs					

		Unit	Quantity	Rate	Amount
<u>EARTH FILLING, ETC.</u>					
<u>Filling with selected material from the excavations compacted to a density of at least 93% Mod. AASHTO maximum density:</u>					
8	Backfilling to trenches, holes, etc.	m ³	13		
<u>Filling with approved G7 material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:</u>					
9	Under steps and ramps.	m ³	9		
<u>Filling with approved G5 material supplied and carted onto site by the Contractor, compacted to a density of at least 98% Mod. AASHTO maximum density:</u>					
10	Under steps and ramps.	m ³	9		
<u>Surface Preparation:</u>					
11	Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, steps, ramps, etc including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 93% Mod. AASHTO maximum density, part to falls. (Most walkways already compacted under Bulk Earthworks).	m ²	29		
<u>KEEPING EXCAVATIONS FREE OF WATER</u>					
<u>Keeping excavations free of water:</u>					
12	Keeping excavations free of all water other than subterranean water.	Item			
Carried to Collection				R	
Section No. 8					
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Walkways, Ramps And Stairs					

		Unit	Quantity	Rate	Amount
<u>TESTS</u>					
<u>Prescribed density tests on filling:</u>					
13	Modified AASHTO Density test.	No	10		
<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>					
<u>15Mpa/19mm Concrete</u>					
14	Surface blinding under strip footings, etc.	m ³	1		
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>					
<u>25 MPa/19mm Concrete:</u>					
15	Strip footings.	m ³	7		
16	External steps, etc.	m ³	2		
17	Ramps, landings, etc, part cast to falls.	m ³	2		
18	Surface beds, walkways, cast in panels, etc.	m ³	27		
<u>REINFORCED CONCRETE</u>					
<u>25 MPa/19mm Concrete:</u>					
19	Infill to cavity in retaining brick walls.	m ³	2		
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
<u>TEST BLOCKS</u>					
<u>Test blocks:</u>					
20	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	7		
<u>FINISHING TOP SURFACE OF CONCRETE</u>					
<u>Finishing top surfaces of concrete to an even non-slip finish:</u>					
21	Steps, treads and risers, etc.	m ²	11		
22	Ramps, landings, etc.	m ²	23		
23	Surface beds, walkways, etc.	m ²	270		
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
<u>Rough Formwork to Sides:</u>					
24	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	442		
<u>Saw-cut joints</u>					
25	3 x 65mm Saw-cut joints in top of concrete	m	75		
26	6 x 30mm Saw-cut joints in top of concrete	m	75		
Carried to Collection				R	
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Walkways, Ramps And Stairs					

		Unit	Quantity	Rate	Amount
	<u>Expansion joints with 8mm jointex or bitumen impregnated softboard through concrete paving</u>				
27	Paving not exceeding 300mm thick	m	73		
	<u>REINFORCEMENT, ETC. (PROVISIONAL).</u>				
	<u>Steel reinforcement to structural concrete work:</u>				
28	In varying diameter bars.	Tonnes	0,84		
	<u>Fabric reinforcement:</u>				
29	Type 193 fabric reinforcement in concrete surface beds, walkways, steps, ramps, etc.	m ²	300		
30	Type 193 fabric reinforcement in concrete infill to cavity walls.	m ²	37		
	<u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u>				
	<u>Brickwork of NFX bricks (14 Mpa nominal compressive strength) in Class II mortar:</u>				
31	280mm Hollow walls of two half brick skins including wire ties and 60mm wide cavity to receive concrete infill (elsewhere measured).	m ²	37		
	<u>BRICKWORK IN SUPERSTRUCTURE</u>				
	<u>Brickwork of NFX bricks (14 Mpa nominal compressive strength) in Class II mortar:</u>				
32	280mm Hollow walls of two half brick skins including wire ties and 60mm wide cavity in balustrade walls at steps and ramps.	m ²	34		
	Carried to Collection			R	
	Section No. 8				
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	Walkways, Ramps And Stairs				

		Unit	Quantity	Rate	Amount
<u>BRICKWORK SUNDRIES</u>					
<u>Brickwork reinforcement:</u>					
33	75mm Wide reinforcement built in horizontally.	m	204		
34	75mm Wide reinforcement built in horizontally, in foundations. (Provisional).	m	296		
<u>Closing of cavities :</u>					
35	Closing 60mm cavities of 280mm hollow walls horizontally as coping with two courses of brickwork (To receive plaster, elsewhere measured).	m	37		
36	Closing 60mm cavities of 280mm hollow walls vertically.	m	16		
<u>WATERPROOFING TO RETAINING WALLS</u>					
<u>One layer of 350 micron Consol Plastics Hyperlastic Orange waterproof sheeting sealed at laps with Superstik tape:</u>					
37	Vertically behind retaining walls.	m ²	37		
<u>U24 Bidim impregnated with rubberized bitumen protection drainage layer to concrete retaining walls before installation of DPC membrane:</u>					
38	Behind waterproofing to concrete retaining walls including maintaining in position during installation of 350 micron membrane (elsewhere measured).	m ²	55		
Carried to Collection				R	
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Walkways, Ramps And Stairs					

		Unit	Quantity	Rate	Amount
<u>JOINT SEALANTS ETC</u>					
<u>Grey polysulphide joint sealant, etc</u>					
39	6 x 10mm In saw - cut joints.	m	75		
40	6 x 30mm In expansion joints between concrete and brick surfaces	m	73		
<u>GRANOLITHIC</u>					
<u>Untinted granolithic on concrete:</u>					
41	30mm Thick on treads and risers of stairs including reedings.	m ²	11		
<u>EXTERNAL PLASTER</u>					
<u>Cement plaster on brickwork:</u>					
42	On brick balustrade walls.	m ²	89		
43	On narrow widths not exceeding 300mm wide to top of copings and ends.	m ²	13		
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Walkways, Ramps And Stairs					

		Unit	Quantity	Rate	Amount
<u>PAINT TO EXTERNAL FLOATED PLASTER SURFACES</u>					
<u>'Wall & All' or equally approved paint to exterior new cement plaster, surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Wall & All (WAA 1) with 2 hours drying time between coats, for a maintenance cycle of 12 years in a C5 - coastal/marine environment, for exterior use :</u>					
44	Plastered balustrade walls.	m ²	102		
<u>SUBSOIL DRAINAGE, ETC.</u>					
<u>Sub soil drainage:</u>					
45	32mm Diameter PVC weephole/spit pipe approximately 400mm long, built into 280mm retaining walls at 1500mm centres, including positioning pipe in 19mm stone drain behind retaining wall.	No	20		
46	100mm Diameter Geopipe/Subsoil perforated pipe laid behind retaining walls including 19mm crushed stone encasing size 200 x 200mm and bidum geofabric (U24/A3) filter blanket wrapped around encasing with 150mm side and 300mm end laps including stitching.	m	37		
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		Unit	Quantity	Rate	Amount
<u>PAVING, ETC</u>					
<u>Paving of 500 x 500 x 50mm thick precast concrete paving blocks with butt joints on 20mm thick river sand bed with sand-and-cement mixture swept into joints and hosed down, including preparation of ground or filling. (Option in lieu of concrete walkways).</u>					
47	Paving to walkways, etc to slight falls.	m ²	270		RATE ONLY
<u>KERBING CHANNELS, ETC.</u>					
<u>Precast concrete kerbing finished smooth on exposed surfaces including bedding, jointing and pointing, etc.</u>					
48	Standard Edge Restraint Kerb (SABS 927-1969 Fig 2) 125 x 250mm high overall laid upright on and including 200 x 50mm thick unreinforced 15/13Mpa concrete bedding, with 150 x 300mm unreinforced concrete haunching at back of each joint in kerbing, including all excavation, backfilling, etc. (Option in lieu of concrete walkways and formwork to edges).	m	420		RATE ONLY
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<p><u>SECTION NO. 8</u></p> <p><u>DECANTING SITE (PROVISIONAL)</u></p> <p><u>BILL NO. 8</u></p> <p><u>FENCING</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>SECURITY FENCING, ETC (SEE WORK TO BE DONE BY SMME)</u></p> <p>Rates for fencing are to include for taking all necessary precautions to ascertain position of and preventing damage to services in ground over which such fencing is to be constructed. Nevertheless, the Contractor shall bear the full responsibility for any such damage to services which may occur and the cost of consequent repairs shall be for the Contractor's account, and rates shall include for the occurrence of this risk. The Contractor is to allow for levelling, filling and excavating to maintain a regular ground level at finished ground level and the bottom of the fencing.</p> <p><u>Clearing of Fence Lines</u></p> <p>Prices shall be deemed to include for the clearance of a 1000mm wide area where new fence is to be erected including removing trees, shrubs etc. not exceeding 200mm girth, grubbing up roots and roughly levelling.</p>				
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	Unit	Quantity	Rate	Amount
<p>The bottom of the fence shall be located at a uniform distance above the ground line, but no more than 50mm. Large surface irregularities will be closed with fencing as instructed.</p> <p>The tendered rate shall include full compensation for the clearing of the fence line, including the removal of stones, the removal and grubbing of trees and tree stumps (except large trees and stumps), cutting of branches, backfilling of cavities and the compaction of backfill material to 90% of Modified AASHTO density, demolishing of structures and the removal and disposal of material resulting from clearing operations at an approved spoil site.</p> <p><u>Levelling of Ground</u></p> <p>On completion of the erection of the fence, the Contractor shall level existing ground flush with the bottom edge of the mesh.</p> <p><u>Classification of Excavated Material</u></p> <p>Prices for all post excavations shall include for excavations in earth, soft and/or hard rock.</p> <p>No extra over rate will be entertained for the occurrence of rock.</p> <p><u>Disposal of Surplus Excavated Material</u></p> <p>All surplus earth from the excavations shall be deposited and roughly levelled on site or carted away as directed.</p>				
<p>Section No. 8</p> <p>Bill No. 8</p> <p>Fencing</p>	Carried to Collection		R	
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	Unit	Quantity	Rate	Amount
<u>Note:</u> The Bidder/Contractor should ensure that all the materials used fully comply with the prescribed SABS/SANS codes and minimum performance requirements. Samples of fencing materials will be tested for compliance to the specifications and should the tests be negative the Bidder/Contractor will have to replace the materials at their own cost and source an alternative supplier that complies with the specifications.				
<u>THE FOLLOWING IN GALVANISED STEEL SECURITY FENCING, ETC</u>				
<u>(Refer to Architects Fence Details Drawing A20246-ARCH-6 for Detail of Typical Steel Security Fencing)</u>				
<u>Site Clearance</u>				
1				
Allow for clearing site for the width of 1 000mm where fencing is to be erected including removing trees, shrubs etc. not exceeding 200mm girth, grubbing up roots and roughly levelling.	m	287		RATE ONLY
<u>Galvanised Steel Security Fencing</u>				
<u>Straining wires, fencing and razor wire:</u>				
2				
Six (6) strands of 4mm thick Class'A' galvanised straining wires secured to fencing posts with doubled 2 mm thick galvanised binding wire inserted through hole in post and turned a minimum of four turns around straining wire and attached to straining frame at one end with not less than four turns at the other end to straining bolts (elsewhere measured).	m	275		RATE ONLY
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		Unit	Quantity	Rate	Amount
3	Two (2) strands of 4mm thick Class'A' galvanised straining wires secured to fencing posts with doubled 2 mm thick galvanised binding wire inserted through hole in post and turned a minimum of four turns around straining wire and attached to straining frame at one end with not less than four turns at the other end to straining bolts (elsewhere measured), to receive flatwrap razor wire (elsewhere measured).	m	275		RATE ONLY
4	Fencing formed of standard 50 x 25 x 2.5mm thick galvanised steel Class C weldmesh fencing 1 800mm high and fixed to each straining wire with approved Hogring clips at max 500mm centres (straining wire elsewhere measured), including 4mm thick galvanised steel pegs at max 2 500mm c/c at bottom of fence fixed to straining wire and anchored to ground.	m	275		RATE ONLY
5	500mm Diameter Galvanised Steel Flatwrap razor wire with two strands of double stranded barbed wire, fixed to straining wire (elsewhere measured) at top of fence, with approved Hogring clips at max 300mm centres.	m	275		RATE ONLY
<u>Posts for 2 200mm high Galvanised Steel Security Fence:</u>					
6	100 x 50mm Galvanised mild steel standard fencing post 2800mm long overall fitted with a galvanised steel dished cap one end and 150 x 150 x 5mm thick baseplate at bottom and embedded 600mm deep into and including 20Mpa mass concrete base 350 x 350 x 700mm deep, installed at 5m intervals.	No	32		RATE ONLY
7	100 x 50mm Galvanised mild steel intermediate fencing post 2800mm long overall fitted with a galvanised steel dished cap one end and 150 x 150 x 5mm thick baseplate at bottom and embedded 600mm deep into and including 20Mpa mass concrete base 350 x 350 x 700mm deep posts installed at 15m intervals, and with and including two 75mm diameter galvanised mild steel diagonal stay posts 3000mm long set raking each side of intermediate post with top ends flattened and bolted to post and bottom ends with base plates 150 x 150 x 5mm thick and embedded in and including 20Mpa mass concrete bases 750 x 750 x 450mm deep.	No	8		RATE ONLY
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		Unit	Quantity	Rate	Amount
8	100 x 50mm Galvanised mild steel corner fencing post 2800mm long overall fitted with a galvanised steel dished cap one end and 150 x 150 x 5mm thick baseplate at bottom and embedded 600mm deep into and including 20Mpa mass concrete base 350 x 350 x 700mm deep posts installed at corners, and with and including two 75mm diameter galvanised mild steel diagonal stay posts 3000mm long set raking to sides of corner post with top ends flattened and bolted to post and bottom ends with base plates 150 x 150 x 5mm thick and embedded in and including 20Mpa mass concrete bases 750 x 750 x 450mm deep.	No	18		RATE ONLY
9	100 x 50mm Galvanised mild steel gate fencing post 2800mm long overall fitted with a galvanised steel dished cap one end and 150 x 150 x 5mm thick baseplate at bottom and embedded 600mm deep into and including 20Mpa mass concrete base 350 x 350 x 700mm deep posts installed at gates, and with and including one 75mm diameter galvanised mild steel diagonal stay post 3000mm long set raking to side of gate post with top end flattened and bolted to post and bottom end with base plates 150 x 150 x 5mm thick and embedded in and including 20Mpa mass concrete base 750 x 750 x 450mm deep.	No	20		RATE ONLY
10	12mm Diameter galvanised mild steel straining eye bolt with hook, threaded portion and two nuts and washers, fitted to posts including forming 12mm diameter hole through fence post.	No	448		RATE ONLY
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		Unit	Quantity	Rate	Amount
	<u>Gates, etc.</u>				
11	Security fence single gate to fit opening size 1000mm wide x 2200mm high overall, with gate size 900 x 1800mm high formed of 50mm diameter hot dipped galvanised steel pipe framing all round with mitred and welded angles and cross brace, with two 50mm diameter hot dipped galvanised vertically projecting posts at top of gate to receive razor wire each 350mm long with one end welded to top rail of gate and closure plate to other end, the gate covered with 50 x 25 x 2,5mm thick galvanised steel Class C weldmesh 1800mm high with four 4mm thick galvanised steel straining wires and approved Hogring clips as previously described, two strands straining wire to top section of gate for razorwire and including two strands double stranded barbed wire fixed to straining wire with Hogring clips for and including 500mm galvanised steel flatwrap razor wire all as previously described. Leaf fitted with three heavy duty galvanised steel post hinges welded and bolted to post and gate frame including all holes, etc., with and including 10mm thick galvanised steel barrel sliding gate bolt and approved 8mm chain spot welded to gate. (See Architects Detail for Fencing & Gates).	No	7		RATE ONLY
12	Ditto but two leaf vehicular swing gate to fit opening size 3000 x 2200mm high overall, with gate in two equal leaves size 1440 x 1800mm high each, all as before, including locking bolt and chain as before and 10mm thick galvanised steel barrel bolt welded to frame and slider to fit into 100x200x200mm thick 20Mpa concrete base at the bottom of each gate leaf. (See Architects Fencing and Gate Details).	No	3		RATE ONLY
13	100 x 200 x 200mm Deep 20Mpa concrete pad for tower bolt keeps, including holes in concrete for bolts.	No	6		RATE ONLY
14	Supply 50mm "Viro" or equally approved Padlocks and Keys together with plastic key tag.	No	10		RATE ONLY
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<p><u>THE FOLLOWING IN PREFABRICATED MODIFIED INSULATED CONTAINER STRUCTURES TO DECANTING SITE AS TEMPORARY SERVICE FACILITIES</u></p> <p><u>Modified & Insulated Lockable Container with no windows for 'Electrical Services' by Approved reputable suppliers/manufacturers of minimum area and dimensions as per the drawings and items below supplied and installed complete suitably strong walls to carry and support weight of all required electrical distribution boards/inverters to a minimum of 2 Tons of weight, formed of pre-painted steel panels with a minimum floor to ceiling height of 2400mm high, including any internal divisions, etc as per proposed layouts. Each unit to be provided complete in every way including doors (No windows) and galvanised burglar proofing (on all doors), gutters and downpipes, a single roof mounted automatic fire extinguisher, 2 x 40W LED light fittings as required to meet requirements.</u></p> <p><u>Fitted with occupancy sensor, 3 double power sockets as required, external 30Watt LED floodlight and unit to have 2 x 5kw split wall mounted inverter type aircon unit, a 2 x 20 L/sec fresh air Whirley bird fan installed suitable to meet the necessary requirements and 2 x 110mm sleeves entering container at top and bottom for all AC and DC electrical wiring. Floor finishes to be vinyl sheeting. NB: All prefabricated rooms/units to be placed on approved suitable jacks all to Engineers approval and to be compliant with a 30 minute fire rating. Electrical COC must be supplied for each block on completion.</u></p>				
1	Relocatable, Modified, Insulated & Lockable Electrical Services Container Unit complete with no windows, as per drawing layout, Area 7m2 and approximate dimensions 3 000 x 2 400 x 2 600mm High (Electrical Services Room for Inverters & Batteries).	No	1	
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	Unit	Quantity	Rate	Amount
<u>THE FOLLOWING IN PREFABRICATED MODULAR STRUCTURES TO DECANTING SITE AS TEMPORARY MAGISTRATES OFFICE FACILITIES</u>				
<p>The items described in the bill below should be read and priced in conjunction with the Architects & Engineers Decanting Site Drawings. (Refer to Architects Site Development Plan A20246-ARCH-1 - SDP DECANTING SITE as well as A20246-ARCH-2 - GROUND FLOOR PLAN, as well as Sections & Elevations and Civil and Electrical Drawings.</p> <p>Note:</p> <p>All prefabricated units are to be supplied and installed complete including all finishes, electrical, mechanical and plumbing requirements as per the drawings and units simply connected to the available services on the site which are elsewhere measured.</p> <p><u>Existing Prefabricated Units elsewhere removed and relocated from the Magistrates Office site within 2km as per the drawings and items below, positioned, set up and installed complete and placed on Decanting Site on approved suitable jacks all to Engineers approval and including all electrical and mechanical connections. Electrical COC must be supplied for each block on completion.</u></p>				
2 Existing Relocatable Prefabricated Security Guardhouse Unit/Block complete, Area 9m2 and approximate dimensions 3 000 x 3 000mm. (Security Guardhouse).	No	1		
3 Existing Relocatable Prefabricated Courtroom/Office Unit/Block complete, Area 36m2 and approximate dimensions 12 000 x 3 000mm. (Courtroom 02).	No	1		
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	Unit	Quantity	Rate	Amount
4				
Position and assemble existing steel access ramp, approximate size 22 x 1.2m wide x 1m high including 1m high balustrading, complete, as Re-located from the nearby Magistrates Office site within 2km radius or handing over to Client if not re-used and storing on Decanting site for possible future use.	No	1		
<u>Prefabricated 'Offices' propriety design by Approved reputable suppliers/manufacturers of minimum area and dimensions as per the drawings and items below supplied and installed complete, formed of pre-painted/chromadek finish panels of 40mm thick minimum thickness and minimum floor to ceiling height of 2800mm high, including any internal divisions, etc as per proposed layouts. Each unit to be provided complete in every way including aluminium doors and windows with safety glass and galvanised burglar proofing (on all doors and windows), gutters and downpipes, LED florescent tubes as required to meet requirements fitted with occupancy sensor, 2 double power sockets as required, external 30Watt LED floodlight and offices to have suitable and adequate air-conditioning to meet the necessary requirements. Floor finishes to be vinyl sheeting. NB: All prefabricated rooms/units to be placed on approved suitable jacks all to Engineers approval and to be compliant with a 30 minute fire rating. Electrical COC must be supplied for each block on completion.</u>				
5				
Relocatable Prefabricated Office Unit/Block complete as per drawing layout, Area 5m2 and approximate dimensions 1 650 x 3 000mm. (Server Room - Attached to Existing Relocated Courtroom 02).	No	1		
6				
Relocatable Prefabricated Office Unit/Block complete as per drawing layout, Area 18m2 and approximate dimensions 6 000 x 3 000mm. (Registry Office & Records Room).	No	1		
7				
Relocatable Prefabricated Office Unit/Block complete as per drawing layout, Area 18m2 and approximate dimensions 6 000 x 3 000mm. (Maintenance Offices 01 & 02).	No	1		
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		Unit	Quantity	Rate	Amount
8	Relocatable Prefabricated Office Unit/Block complete as per drawing layout, Area 18m2 and approximate dimensions 6 000 x 3 000mm. (SAPS Offices).	No	1		
9	Relocatable Prefabricated Office Unit/Block complete as per drawing layout, Area 36m2 and approximate dimensions 12 000 x 3 000mm. (Clerk Criminal/Clerk Civil Offices 01 & 02).	No	1		
10	Relocatable Prefabricated Office Unit/Block complete as per drawing layout, Area 36m2 and approximate dimensions 12 000 x 3 000mm. (Clerk Court/Prosecutor Offices 01 & 102).	No	1		
11	Relocatable Prefabricated Office Unit/Block with Kitchenette complete as per drawing layout, Area 45m2 and approximate dimensions 14 900 x 3 000mm. (Control Prosecutor, Court Manager, Waiting Area & Kitchenette).	No	1		
12	Relocatable Prefabricated Office Unit/Block complete as per drawing layout, Area 80m2 and approximate dimensions 7 000 x 12 000mm. (Interpreters Offices 01 & 02, Stationary Store, File Room, Vote Account Office, 2 x Waiting Areas & Cash Hall).	No	1		
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	Unit	Quantity	Rate	Amount
<p><u>Prefabricated 'Offices with Toilets' propriety design by Approved reputable suppliers/manufacturers of minimum area and dimensions as per the drawings and items below supplied and installed complete, formed of pre-painted/chromadek finish panels of 40mm thick minimum thickness and minimum floor to ceiling height of 2800mm high, including any internal divisions, etc as per proposed layouts. Each unit to be provided complete in every way including aluminium doors and windows with safety glass and galvanised burglar proofing (on all doors and windows), gutters and downpipes, LED florescent tubes as required to meet requirements fitted with occupancy sensor, 2 double power sockets as required, external 30Watt LED floodlight and offices to have suitable and adequate air-conditioning to meet the necessary requirements. Floor finishes to be vinyl sheeting.</u></p> <p><u>Plumbing to office toilets to include toilets, wash hand basins, taps, traps, valves, piping, connections and all necessary accessories, etc. (Note: No geysers - Cold Water connection only and All plumbing piping for water and drainage required for the complete operation of the plumbing system are to be included as well as connecting to water and drainage systems) - NB: All prefabricated rooms/units to be placed on approved suitable jacks to Engineers approval and to be compliant with a 30 minute fire rating. Electrical COC must be supplied for each block on completion.</u></p>				
13	Relocatable Prefabricated Office Unit/Block with toilets complete as per drawing layout, Area 36m2 and approximate dimensions 12 000 x 3 000mm. (Magistrates Offices with Toilets).	No	1	
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		Unit	Quantity	Rate	Amount
	<p><u>Prefabricated 'Courtroom/Offices' propriety design by Approved reputable suppliers/manufacturers of minimum area and dimensions as per the drawings and items below supplied and installed complete, formed of pre-painted/chromadek finish panels of 40mm thick minimum thickness and minimum floor to ceiling height of 2800mm high, including any internal divisions, etc as per proposed layouts. Each unit to be provided complete in every way including aluminium doors and windows with safety glass and galvanised burglar proofing (on all doors and windows), gutters and downpipes, LED florescent tubes as required to meet requirements fitted with occupancy sensor, 2 double power sockets as required, external 30Watt LED floodlight and offices to have suitable and adequate air-conditioning to meet the necessary requirements. Floor finishes to be vinyl sheeting. NB: All prefabricated rooms/units to be placed on approved suitable jacks all to Engineers approval and to be compliant with a 30 minute fire rating. Electrical COC must be supplied for each block on completion.</u></p>				
14	Relocatable Prefabricated Main Courtroom/Office Unit/Block complete as per drawing layout, Area 72m2 and approximate dimensions 12 000 x 6 000mm. (Main Court 01).	No	1		
				R	
<p>Section No. 8</p> <p>Bill No. 9</p> <p>Prefabricated Modular Structures</p>					

		Unit	Quantity	Rate	Amount
	<p><u>Prefabricated 'Ablution/Toilets' propriety design by Approved reputable suppliers/manufacturers of minimum area and dimensions as per the drawings and items below supplied and installed complete, formed of pre-painted/chromadek finish panels of 40mm thick minimum thickness and minimum floor to ceiling height of 2800mm high, including any internal divisions, etc as per proposed layouts. Each unit to be provided complete in every way including aluminium doors and windows with safety glass and galvanised burglar proofing (on all doors and windows), gutters and downpipes, LED florescent tubes as required to meet requirements fitted with occupancy sensor, as required, external 30Watt LED floodlight. Floor finishes to be vinyl sheeting.</u></p> <p><u>Plumbing to ablutions/toilets to include toilets, wash hand basins, taps, traps, valves, piping, connections and all necessary accessories, etc. (Note: No geysers - Cold Water connection only and All plumbing piping for water and drainage required for the complete operation of the plumbing system are to be included as well as connecting to water and drainage systems) - NB: All prefabricated rooms/units to be placed on approved suitable jacks all to Engineers approval and to be compliant with a 30 minute fire rating. Electrical COC must be supplied for each block on completion.</u></p>				
15	Relocatable Prefabricated Staff Ablution Unit/Block complete as per drawing layout, Area 18m2 and approximate dimensions 6 000 x 3 000mm. (Staff Ablutions).	No	1		
16	Relocatable Prefabricated Public Ablution Unit/Block with Disabled complete as per drawing layout, Area 12m2 and approximate dimensions 4 000 x 3 000mm. (Public Ablutions Male & Female).	No	2		
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		Unit	Quantity	Rate	Amount
	<p><u>Prefabricated 'Prisoner Cell' propriety design by Approved reputable suppliers/manufacturers of minimum area and dimensions as per the drawings and items below supplied and installed complete, formed of pre-painted/chromadek finish panels of 40mm thick minimum thickness and secure outer frame to suit Prisoner Cell requirements and minimum floor to ceiling height of 2800mm high, as per proposed layouts. Each unit to be provided complete in every way including cell type doors and windows and gates, gutters and downpipes, LED vandal proof florescent tubes as required to meet requirements fitted with occupancy sensor, as required, external 30Watt LED floodlight. Floor finishes to be vinyl sheeting.</u></p> <p><u>Plumbing to cells to include cell type toilets, cell type wash hand basins and tap fittings, traps, valves, piping, connections and all necessary accessories, etc. (Note: No geysers - Cold Water connection only and All plumbing piping for water and drainage required for the complete operation of the plumbing system are to be included as well as connecting to water and drainage systems) - NB: All prefabricated rooms/units to be placed on approved suitable jacks all to Engineers approval and to be compliant with a 30 minute fire rating. Electrical COC must be supplied for each block on completion.</u></p>				
17	Relocatable Prefabricated Prisoner Cell Unit/Block complete as per drawing layout, Area 18m ² and approximate dimensions 6 000 x 3 000mm. (Male Cell, Female Cell).	No	2		
	<p><u>SUNDRY ITEMS, ETC</u></p> <p><u>Sundry Items:</u></p>				
18	Contractor to make provision to de-establish and disconnect all Relocatable Prefabricated Units above on completion of the works, load and transport the units to another site or sites within a 150km radius including off-loading units on new site placing and setting up in position on site,	Item			
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		Unit	Quantity	Rate	Amount
<u>SANITARY PLUMBING</u>					
<u>uPVC (SANS 967) pipes:</u>					
19	40mm Pipes.	m	22		
20	110mm Pipes	m	16		
21	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	16		
22	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	10		
23	110mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	m	5		
<u>Extra over uPVC pipes for fittings (SANS 967):</u>					
24	40mm Bend.	No	8		
25	40mm Access bend.	No	8		
26	40mm Junction.	No	3		
27	110mm Reducer.	No	7		
28	110mm Bend.	No	18		
29	110mm Access bend.	No	7		
30	110mm Junction.	No	3		
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		Unit	Quantity	Rate	Amount
31	110mm Access junction.	No	1		
32	110mm Access reducing junction.	No	2		
33	110mm Pan connector	No	16		
34	110mm Two-way' vent valve.	No	7		
	<u>Sundries:</u>				
35	Testing waste pipe systems, complete.	Item			
	<u>WATER SUPPLIES</u>				
	<u>Polycop' polypropylene pipes with and including compression fittings:</u>				
36	15mm Pipes.	m	40		
37	22mm Pipes.	m	20		
38	15mm Pipes laid in trenches not exceeding 2m deep, including excavation in all materials, bedding, backfilling, compaction and disposing of surplus excavated material.	m	15		
39	22mm Pipes laid in trenches not exceeding 2m deep, including excavation in all materials, bedding, backfilling, compaction and disposing of surplus excavated material.	m	20		
	<u>Extra over for brass compression fittings</u>				
40	15mm Fittings	No	52		
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		Unit	Quantity	Rate	Amount
41	22mm Fittings	No	26		
	<u>TESTING</u>				
	<u>Testing:</u>				
42	Testing and commissioning water pipe system,complete.	Item			
	<u>FIRE APPLIANCES, SIGNAGE, ETC.</u>				
	<u>Fire Extinguishers to SANS 10400-T :</u>				
43	4,5kg DCP hand held fire extinguisher including mounting bracket and backboard plugged and screwed to wall.	No	19		
44	4,5kg Carbon dioxide CO2 hand held fire extinguisher including mounting bracket and backboard plugged and screwed to wall.	No	1		
	<u>SABS approved wall mounted emergency photoluminescent statutory fire signs with pictograms silkscreened on 1mm ABS plastic and in accordance with SANS 1186, framed and Single Sided fixed with suitable screws to walls :</u>				
45	F13 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 384mm, Fire extinguisher with arrow pointing down, fixed to wall with 4 off screws.	No	11		
46	E1 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 384mm, Running Man with arrow pointing right, fixed to wall with 4 off screws.	No	9		
47	E2 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 384mm, Running Man with arrow pointing left, fixed to wall with 4 off screws.	No	7		
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		Unit	Quantity	Rate	Amount
48	E3 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 384mm, Running Man with arrow pointing down, fixed to wall with 4 off screws.	No	12		
49	E6 Photoluminescent silkscreen on PVC symbolic safety signs, size 190 x 384mm, Exit sign, fixed to wall with 4 off screws.	No	2		
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PREFABRICATED MODULAR STRUCTURES
COLLECTION

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	Unit	Quantity	Rate	Amount
<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in their unit rates.</p> <p>Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p> <p><u>Compliance, Preliminary & General Items, (Contractual Items, Fixed Cost Items, Time Related Items & General Items), etc.</u></p> <p>The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub-contract to the Main Contractor. There is no separate Preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries & General and Compliance items applicable to this scope of works, including but not limited to :</p> <p>1) Provision of a Sub-Contract Construction Guarantee, in terms of the Sub-contract Agreement.</p> <p>2) Provision of an Advanced Payment Guarantee, in the amount as is required for the procurement of any materials/equipment to facilitate the completion of the works.</p> <p>3) Provision of Insurances such as Contract Works, Special, Supplementary, Public Liability Insurances, as deemed necessary in the contract, etc.</p> <p>4) Allowance for compliance with Construction Regulations, OH&S Specification by the Employer/Agent & the OH&S Act.</p>				
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		Unit	Quantity	Rate	Amount
	8) Training of Clients representative(s) at end of defects liability period				
	9) Provision of record drawings				
	10) Provision of Operating and Maintenance manuals				
	<u>LOW VOLTAGE RETICULATION AND DISTRIBUTION</u>				
	<u>Low Volage (600/1000 V) Cables</u>				
	<u>Supply, delivery and installation of PVC PVC SWA ECC PVC type cables, with stranded copper conductors and earth continuity conductors (Installation rate to include for installation in wireways, trays, ducts, trenches, etc. and for the provision of flameproof labels) (Excavations measured elsewhere)</u>				
1	70 mm ² x 4 core	m	25		
2	10 mm ² x 4 core	m	60		
3	10 mm ² x 2 core	m	240		
	<u>Low Volage (600/1000 V) Cable Terminations</u>				
	<u>Supply, delivery and installation of cable terminations, including all fastening materials, glands, shrouds, lugs, insulating materials, etc.</u>				
4	70 mm ² x 4 core	No	4		
5	10 mm ² x 4 core	No	6		
6	10 mm ² x 2 core	No	22		
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	Electrical Works				

		Unit	Quantity	Rate	Amount
<u>Low Voltage Earthing</u>					
7	Allow for bonding of the electrical installation	Item			
8	Supply and installation of 500 x 25 x 5 mm earth bar, mounted to brickwork / concrete by three off post insulators with suitable rawl bolts, with 10 off 8 mm holes for cable terminations	No	2		
<u>Earth Spikes</u>					
<u>Supply, delivery and installation of earth spikes including all fastening materials, lugs, etc.</u>					
9	1 800mm x 16mm Diameter	No	15		
10	1 200mm x 16mm Diameter	No	8		
<u>Electrical Distribution Boards</u>					
<u>Allow for the supply, delivery to site, installation of flush mounted unit, incl. fixing goods & lockable hinged doors, as specified in Project Specification and depicted on single line diagrams.</u>					
11	Main Electrical Distribution Kiosk	No	1		
12	Sub-electrical Distribution Board (SEDB-CR1)	No	2		
13	Sub-electrical Distribution Board (SEDB-K1)	No	1		
14	Sub-electrical Distribution Board (SEDB-O)	No	11		
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		Unit	Quantity	Rate	Amount
<u>Cable Trays</u>					
<u>Medium duty, hot-dipped galvanised cable tray, 304mm wide x 1.6 mm thick, with trapeze brackets</u>					
15	Cable Tray	m	40		
16	Horizontal Bend	No	3		
17	Internal / External Bend	No	3		
18	Horizontal Tee	No	3		
19	Splice	No	13		
20	Support / Suspension / Trapeze Bracket	No	40		
21	4-Way Crossover	No			RATE ONLY
22	Width Reducing Splice	No			RATE ONLY
<u>SPECIALIST EQUIPMENT</u>					
<u>Lightning Protection System</u>					
<u>Allow for the supply, delivery and installation of the lightning protection services, to be carried out by a Specialist Sub-contractor as per drawing and project specification</u>					
23	Lightning Protection System	No	1		
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		Unit	Quantity	Rate	Amount
<u>Light Switches and Occupancy Sensors</u>					
<u>Supply, delivery and installation of light switches and occupancy sensors, excluding outlet boxes, but including covers and surrounds, mounted to outlet boxes</u>					
30	One lever, one way switch, waterproof	No	9		
31	One lever, one way switch, with dimmer control	No			RATE ONLY
32	Occupancy sensor, with passive infra-red and microwave motion sensing capabilities, suitable for mounting at 5 m height and with a minimum range of 10 metres	No			RATE ONLY
<u>Luminaires</u>					
<u>Allow for the supply, delivery and installation of luminaires, either fixed to round conduit boxes cast into brickwork or conduit boxes supported to ceiling / roof structure or mounted in recessed ceiling grid, including all fixing materials and terminations as per the Project Specification</u>					
33	Type C	No	7		
<u>PVC SANS Approved Conduit</u>					
<u>Supply, delivery and installation of conduit on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, couplings, saddles, etc.</u>					
34	20mm Diameter conduit	m	136		
35	20mm Diameter conduit, flexible	m	3		
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		Unit	Quantity	Rate	Amount
<u>PVC SANS Approved Conduit Accessories</u>					
<u>Supply, delivery and installation of conduit accessories on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, mounting screws, cover screws, etc.</u>					
36	50mm Diameter conduit box for 20mm conduit	No	19		
37	50mm Diameter conduit box for 25mm conduit	No			RATE ONLY
38	50mm Diameter conduit extension box for 20mm conduit	No	7		
39	100mm x 50mm x 50mm Conduit box	No	9		
40	100mm x 100mm x 50mm Conduit box	No			RATE ONLY
41	Blank standard cover for 50mm diameter conduit box	No	19		
42	Blank over-sized cover for 50mm diameter conduit box	No	2		
43	Blank cover for 100mm x 50mm conduit box	No	1		
44	Blank cover for 100mm x 100mm conduit box	No			RATE ONLY
<u>Galvanised SANS Approved Conduit</u>					
<u>Supply, delivery and installation of conduit on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, couplings, saddles, etc.</u>					
45	20mm Diameter conduit	m	136		
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		Unit	Quantity	Rate	Amount
46	25mm Diameter conduit	m			RATE ONLY
47	32mm Diameter conduit	m			RATE ONLY
48	50mm Diameter conduit	m			RATE ONLY
49	Extra over for painting conduit (Colour to be later specified)	m	7		
<u>Galvanised SANS Approved Conduit Accessories</u>					
<u>Supply, delivery and installation of conduit accessories on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, mounting screws, cover screws, etc.</u>					
50	100mm x 50mm x 50mm Conduit box	No	9		
51	100mm x 100mm x 50mm Conduit box	No			RATE ONLY
52	50mm Diameter conduit box for 20mm conduit	No	19		
53	50mm Diameter conduit box for 25mm conduit	No			RATE ONLY
54	2.5m x 20mm diameter sprague, fitted with 50mm conduit box on one end and 50mm round lid on other end, with bushes and locknuts.	No	12		
55	Blank cover for 100mm x 50mm conduit box	No			RATE ONLY
56	Blank cover for 100mm x 100mm conduit box	No	2		
57	Blank standard cover for 50mm diameter conduit box	No	0		
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		Unit	Quantity	Rate	Amount
	<u>Supply, delivery and installation of high conductivity, stranded or solid copper conductors, insulated with general purpose grade PVC, laid up with a bare earth-continuity-conductor between them, with a outer UV-stabilised PVC sheath (either white or black), with a voltage rating of 300 / 500 V (aka twin and earth) (all manufactured in accordance with SANS 1411 Part 1, SANS 1411 Part 2 and SANS 1507-3) drawn into wireways, fixed surface or beneath plaster, including necessary glands</u>				
65	2 x 2.5 mm ² conductors and 1.5 mm ² earth	m	1		
	<u>Under-screed Ducting</u>				
	<u>Supply, delivery and installation of under screed ducting, as specified in Project Specification (outlets measured elsewhere)</u>				
66	Conduit / access floor outlet kit, including concrete ingress prevention plate, 3 universal modular outlet plates, plastic carpet frame and lid	No	8		
	<u>Wiring Mesh and Accessories</u>				
	<u>Supply, delivery and installation of galvanised wiring mesh, including all fixing materials, size 150mm x 50mm</u>				
67	Wiring mesh	m	45		
68	Horizontal bend	No	4		
69	Internal / External Bend	No	2		
70	Horizontal Tee	No	1		
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		Unit	Quantity	Rate	Amount
71	4-way Crossover	No	2		
72	Splice	No	45		
73	Holding Down Bracket, including fasteners	No	2		
<u>EXCAVATIONS AND RELATED BUILDERS WORKS</u>					
<u>Excavations for Trenches</u>					
<u>Excavate for cable and duct trenches, manholes and / or plinths, including temporary support of sides, keeping excavation dry, backfilling and compaction (laying of ducts and / or cables in trenches, construction of manholes and / or plinths measured elsewhere)</u>					
74	In earth or pickable ground	m ³	30		
75	In soft rock, requiring the use of pneumatic tools and aids	m ³	1		
76	In hard rock, requiring the use of dynamite or similar aids	m ³	1		
77	Allow for the importing of suitable soil (sabunga) to be used as either a bedding layer and / or a backfilling layer (bedding to be in layer of 75 mm and backfilling in layers of 150 mm)	m ³	23		
78	Allow for the sorting of all excavated material so as to re-use all soil and soft rocks less than 50 mm diameter	m ³	8		
79	Allow for the backfilling of the trenches, using either the imported soil and / or the selected (excavated) material and the compaction of the backfilling in layers of 150 mm to 95% compaction	m ³	31		
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		Unit	Quantity	Rate	Amount
<u>TESTING AND COMMISSIONING</u>					
<u>Testing and Commissioning, etc. :</u>					
90	Testing and commissioning of the entire installation, complete and issue of COC.	Item			
91	Provision of three sets of operating and maintenance manuals as required.	Item			
92	Provision of 'As-built' drawings, manuals, etc.	Item			
93	Housekeeping with coding and labelling of all plant and equipment and wiring, etc.	Item			
<u>SUNDRIES</u>					
<u>Sundries :</u>					
94	Workshop drawings and equipment schedule submittals for approval, as required, prior to ordering of equipment, etc	Item			
95	Training of staff on correct operation of equipment as required.	Item			
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SECTION NO 9

DOJ CO-FUNDED ITEMS

			Amount
<p><u>SECTION NO. 9</u></p> <p><u>DOJ CO-FUNDED ITEMS</u></p> <p><u>BILL NO. 1</u></p> <p><u>OVERHEAD MESH PRISONER COURTYARD</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of columns and beams shall be deemed to include flat section base, top, bearer and connection plates</p> <p>Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete</p> <p>Structural steelwork shall be completed by the Manufacturer - cleaned, hot-dipped galvanised in workshop before transportation to site.</p> <p>Structural steelwork shall be completed by the Manufacturer - cleaned and painted with specified primer in workshop before transportation to site ONLY if specified in the Engineering Structural Steel drawings.</p>			
<p>Section No. 9</p> <p>Bill No. 1</p> <p>Overhead Mesh Prisoner Courtyard</p>	<p>Carried to Collection</p>	<p>R</p>	

	Unit	Quantity	Rate	Amount
<p>Note: The following restrictions are applicable on ground floor slab during construction and erection of structural steel. 0-7 days: Concrete curing; no loading on ground floor slab permitted. 7-14 days: Light foot traffic permitted. 14-28 days: Light vehicles<5 ton.28+ days: Maximum gross crane load during construction = 25 ton (excludes lifting load). Crane outrigger base footings to be on double cross layer of 50 x 228mm timber spreader supports over and area of 1,00 x 1,00m or similar approved by the Engineer to avert damage to concrete ground floor slab. Only tyre cranes permitted on slab.</p> <p>All purlins and girt cleat holes are to be 14mm Dia for M12 black bolts of grade 4.8. Fixing holes are to be on purlins. All purlin splices are to be fixed staggered and purlins are to be continuous over at least two spans. Purlins are to be fixed to cleats with two bolts at continuous connection and two bolts at purlin or cleat end.</p> <p>All structural steelwork inclusive of bolts, nuts, washers, plates, connections, etc., other than purlins & girts to be hot dipped galvanised in accordance with SANS 121 or ISO 1461 All hot dipped members to be drilled, cut, welded, etc., prior to galvanising. Prices to include for preparation of shop drawings for approval of the Engineer prior to manufacture. A minimum of 7 days must be allowed for checking of shop drawings. Only structural sizes, connections and splices will be checked. Final dimensions and fitting of members shall remain the contractors responsibility. Prices to include for fabrication, cutting, drilling, bending, welding, etc., delivery to site, and hoisting up and erecting into position. The contractor is responsible for stabilising the structure and maintaining it in the correct position during erection.</p> <p>All welds to be 6mm continuous fillet or the weld throat thickness to be the thickness of the thinnest of the two parent metals. All structural steel members to be of grade 350W. Purlins and girts to be pre-galvanised.</p>				
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Bill No. 1				
Overhead Mesh Prisoner Courtyard				

	Unit	Quantity	Rate	Amount
<p>NOTE: All structural steelwork to be fabricated and erected in accordance with SABS 0162 - 1984 and SABS 1200H - 1983. Dimensions and levels to be verified on site prior to manufacture. Any discrepancies found during site measure to be reported to and resolved by the Engineer prior to manufacture. All structural steel elements must be inspected by the Engineer prior to transporting to site. All bolts must be galvanised grade 8.8 unless otherwise specified by the Engineer. Bolts shall not have threads within the shear planes. All holes to be drilled at standard backmark. Baseplates to be properly grouted up and painted prior to backfilling being done. All box or circular section ends to be closed with 14mm plates. Where packer plates are used, longer bolts must be used to ensure that sufficient length of thread is taken up by the nuts.</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>NOTE:</p> <p>Where items in this Bill are identical to those in a previous Bill, the descriptions have been shortened and the Supplementary Preambles omitted, and therefore the full descriptions in the Trades concerned together with the relevant Supplementary Preambles, are to be referred to for the full meaning and intent of each item.</p>				
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Bill No. 1				
Overhead Mesh Prisoner Courtyard				

		Unit	Quantity	Rate	Amount
<u>THE FOLLOWING IN OVERHEAD MESH TO PRISONER COURTYARD</u>					
<u>Note: Refer to the following drawings and details:</u>					
<u>Architects - A20246 - ARCH - 51 Overhead Courtyard Wire Mesh Details</u>					
<u>Engineers - 35016/S20246/STR-210-01-T Screened Galvanised Steel Mesh</u>					
<u>Engineers - 35016/S20246/STR-210-02-T Type Cell Overhead Grilles</u>					
<u>GALVANISED STEEL BEAMS</u>					
<u>Welded beams in single lengths built into brickwork :</u>					
1	254 x 146mm x 31kg/m IPE beams built into brickwork either end for support, (brickwork elsewhere measured). (8 No Beams).	Tonnes	2,39		
<u>GALVANISED STEEL BEARERS, BRACKETS, BRACING, ETC</u>					
<u>Bearers, bracing and brackets, etc., welded or bolted to steel / brickwork :</u>					
2	40 x 40 x 3mm Angle bracket bearer in continuous lengths welded to IPE 200 beams both sides, to receive mesh sheeting (mesh sheeting elsewhere measured).	Tonnes	0,24		
3	50 x 50 x 5mm Angle bracket bearer in continuous lengths bolted to brickwork, including mitres to receive mesh sheeting (bolts and mesh sheeting elsewhere measured).	Tonnes	0,19		
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Overhead Mesh Prisoner Courtyard					

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		Unit	Quantity	Rate	Amount
10	Three layers of 375 micron dampproof course in slip joints between horizontal steel and brick surfaces including cement mortar bed, not exceeding 300mm wide.	m	2		
11	10mm Jointex between horizontal steel and brick surfaces not exceeding 300mm wide.	m	2		
12	10mm Jointex between vertical steel and brick surfaces not exceeding 300mm wide.	m	6		
13	Surfaces of steel IPE 254 beam to be painted with two coats bitumen paint where built into brickwall.	m ²	1		
14	Prepare and paint Polyurethane enamel paint to new metal, Clean and degrease with Aquasolve Degreaser GR1, rinse and prime with one coat Galvogrip Metal Primer, one coat Merit Universal Undercoat and finish with two coats Polyurethane Enamel (VLO) with 2 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment, for interior/exterior use to galvanised steel beams, bearers, etc.	m ²	107		
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Overhead Mesh Prisoner Courtyard					

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OVERHEAD MESH PRISONER COURTYARD
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<u>SECTION NO. 9</u>				
<u>DOJ CO-FUNDED ITEMS</u>				
<u>BILL NO. 2</u>				
<u>OUTDOOR PRISONER WALKWAY ENCLOSURE</u>				
<u>PREAMBLES</u>				
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.				
<u>SUPPLEMENTARY PREAMBLES</u>				
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.				
<u>NOTE:</u>				
Where items in this Bill are identical to those in a previous Bill, the descriptions have been shortened and the Supplementary Preambles omitted, and therefore the full descriptions in the Trades concerned together with the relevant Supplementary Preambles, are to be referred to for the full meaning and intent of each item.				
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Bill No. 2				
Outdoor Prisoner Walkway Enclosure				

	Unit	Quantity	Rate	Amount
<u>THE FOLLOWING IN OUTDOOR PRISONER WALKWAY ENCLOSURE</u>				
<u>Note: Refer to the following drawings and details:</u>				
<u>Architects - A20246 - ARCH - 52 Caged Walkway Details</u>				
<u>GALVANISED STEEL COLUMNS, POSTS, ETC</u>				
<u>Welded SHS column posts in single lengths with flat baseplate, cap, etc, embedded in concrete base (base elsewhere measured)</u>				
1 100 x 100 x 3mm SHS Galvanised mild steel post, including 200 x 200 x 6mm square mild steel base plate welded to bottom of SHS post and embedded in concrete base (elsewhere measured). (23 No Posts).	Tonnes	0,66		
<u>GALVANISED STEEL BEARERS, BRACKETS, BRACING, ETC</u>				
<u>Bearers, bracing and brackets, etc., welded or bolted to steel / brickwork :</u>				
2 70 x 70 x 6mm Angle bracket bearer in framework welded to SHS posts, including mitres to corners etc, to receive mesh sheeting (mesh sheeting elsewhere measured).	Tonnes	1,44		
3 70 x 70 x 6mm Angle bracket bearer in framework bolted to brickwork, including mitres to corners etc, to receive mesh sheeting (bolts and mesh sheeting elsewhere measured).	Tonnes	0,13		
4 90 x 90 x 6mm Angle bracket bearer in framework welded to SHS posts, including mitres to corners, etc, to receive mesh sheeting (mesh sheeting elsewhere measured).	Tonnes	0,56		
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Outdoor Prisoner Walkway Enclosure				

		Unit	Quantity	Rate	Amount
5	90 x 90 x 6mm Angle bracket bearer in framework bolted to brickwork, including mitres to corners, etc, to receive mesh sheeting (bolts and mesh sheeting elsewhere measured).	Tonnes	0,20		
6	2 x 90 x 90 x 6mm Angles welded back to back for T-support bracket bearer in continuous lengths welded to angle framework and placed and welded centrally over mesh to top of cage, to receive mesh sheeting (mesh sheeting elsewhere measured).	Tonnes	0,52		
<u>BOLTS, FASTENERS, ETC</u>					
<u>Galvanised Anchor Bolts, etc. :</u>					
7	M16 High tensile galvanised anchor bolts to brickwork	No	76		
<u>GALVANISED STEEL MESH GRILLES</u>					
8	Screened galvanised or Betafence 358 Double skin Zincalu steel mesh, or similar and approved, laid and fixed to sides in panels into 70 x 70 x 6mm angle iron frame and fixed with and including M8 cup square bolts with sheer nut at 2m centres clip along the fence perimeter all as per fence supplier, (frame elsewhere measured).	m ²	131		
9	Screened galvanised or Betafence 358 Double skin Zincalu steel mesh, or similar and approved, laid and fixed to top of cage in panels into 90 x 90 x 6mm angle iron frame and fixed with and including M8 cup square bolts with sheer nut at 2m centres clip along the fence perimeter all as per fence supplier, (frame elsewhere measured).	m ²	54		
<u>GALVANISED STEEL GATES, SCREENS, ETC</u>					
Note: The contractor is to check on site measurements before placing of order.					
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Outdoor Prisoner Walkway Enclosure					

		Unit	Quantity	Rate	Amount
<u>Welded galvanised clear view steel hinged gates to steel :</u>					
10	Single hinged clear view swing gate to walkway enclosure, complete in single leaf, to suit opening size 1000 x 2410mm high overall, consisting of 80 x 100mm SHS frame and 80 x 100mm SHS middle rail, gate filled in with 76.2 x 12.7mm galvanised matt black powder coated mesh fixed to steel framing and gate fitted with and including a suitable locking mechanism to lock gate in closed position, two galvanised gate hinges each 2 times holed for bolting to steel with suitable bolts, gate posts finished with 1 coat primer and two coats matt black enamel paint, complete all as per detail. (See Architects Door Schedule - A20246-32 - D15).	No	1		
<u>SUNDRIES</u>					
<u>Sundry Items :</u>					
11	Cut through concrete and break out and remove existing 100mm thick surface bed for post bases size 300 x 300mm.	m ²	2		
12	Excavate in pickable material not exceeding 2m deep for post bases.	m ³	1		
13	Risk of collapse to sides of trenches and holes not exceeding 1,5m deep.	m ²	17		
14	Cart away surplus excavated material to a dump site by the contractor	m ³	1		
15	25Mpa Concrete cast against excavated surfaces for post bases.	m ³	1		
16	Finish top of concrete smooth with a wood float	m ²	2		
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Bill No. 2					
Outdoor Prisoner Walkway Enclosure					

		Unit	Quantity	Rate	Amount
17	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	1		
18	Prepare and paint Polyurethane enamel paint to new metal, Clean and degrease with Aquasolve Degreaser GR1, rinse and prime with one coat Galvogrip Metal Primer, one coat Merit Universal Undercoat and finish with two coats Polyurethane Enamel (VLO) with 2 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment, for interior/exterior use to galvanised steel beams, bearers, posts, etc.	m ²	132		
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<p><u>SECTION NO. 9</u></p> <p><u>DOJ CO-FUNDED ITEMS</u></p> <p><u>BILL NO. 3</u></p> <p><u>ELEVATED WATER TANK</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>Corrosion Protection:</u></p> <p>External protection of all underground steel pipes, flanges, joints and couplings shall be by means of a 300 micron layer of coaltar epoxy of an approved make. External protection of all above ground steel pipes, flanges, joints and couplings shall be by means of a zinc coating. The finished surface shall be clean and uniform any excess being removed. The zinc deposit shall exceed 0.735 kg/m³.</p> <p><u>Joints, Bolts, Nuts and Washers:</u></p> <p>"Bolts, nuts and washers shall be treated as follows:</p> <p>Bolts and nuts shall be cadmium plated to BS 1706 and shall conform to grade 4.6 of SABS 135 and BS 916.</p> <p>Plain and tapered washers for use with mild steel bolts and nuts shall comply with BS 4320 and will be electro-galvanised to BS 1706.</p>				
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	Unit	Quantity	Rate	Amount
<p>Plain and tapered washers for use with high tensile steel bolts and nuts shall be case hardened with a minimum hardness of Rockwell C-35.</p> <p><u>Corrosive Soil:</u></p> <p>All buried steel pipework and connections to be "DENSO" wrapped.</p> <p>"Fittings and joints shall be protected with 'Denso Tape' or similar approved material.</p> <p>After the joints and fittings have been tested, they shall be liberally and completely coated with 'Denso Paste' and immediately thereafter wrapped with 'Denso Tape'. Wrapping shall commence at a point at least 50mm beyond the opposite side of the joint or fitting. An overlap of at least 25mm shall be given on each turn.</p> <p>Care shall be taken to smooth down the tape so as to avoid air pockets and gaps through which water could penetrate. Any turned or damaged tape shall be replaced or patched to the satisfaction of the Engineer's Representative. The Contractor shall ensure that the wrapping is not damaged during backfilling.</p> <p><u>Galvanising:</u></p> <p>"Galvanised steel pipework, fittings, specials etc. Shall comply with SABS 934 and 763 and be entirely coated with zinc after fabrication by complete immersion in a zinc bath. The finished surface shall be clean and uniform and any excess being removed. The zinc deposit shall exceed the following.</p> <p>Coastal areas 0.735 kg/m³</p> <p>Inland areas 0.400 kg/m³</p> <p>"Coastal areas' shall apply to this contract."</p>				
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	Unit	Quantity	Rate	Amount
<u>Testing:</u>				
General				
Pipes shall be tested in convenient lengths not exceeding 500m per each test.				
Testing of Valves				
All valves shall be pressure tested according to SABS 664 or other applicable code at the appropriate test pressure.				
No separate payment shall be made for testing of valves and hydrants and the scheduled rates for the supply and installation of valves shall include for all costs in respect of testing.				
<u>Disinfecting:</u>				
All pipes and tanks are to be disinfected to a free chlorine count of 8 parts per million. No separate payment shall be made for disinfecting pipes and tanks and scheduled rates for piping and tanks shall include for all costs in respect of disinfecting.				
<u>NOTE:</u>				
Where items in this Bill are identical to those in a previous Bill, the descriptions have been shortened and the Supplementary Preambles omitted, and therefore the full descriptions in the Trades concerned together with the relevant Supplementary Preambles, are to be referred to for the full meaning and intent of each item.				
<u>TANKS, ETC</u>				
Note: Shop drawings to be provided by Manufacturer/Supplier and approved by Engineer before manufacturing Tank & Stand.				
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		Unit	Quantity	Rate	Amount
<u>Hot-dipped galvanised Steel Sectional Water Tanks etc</u>					
1	120KL Galvanised Pressed Steel Elevated Water Tank and Stand with split domestic/fire water supply & storage, supplied and erected by an Approved Accredited Supplier and Manufacturer, complete, with tank size 7320 x 4880 x 3660mm high with external flanges and flat top including all galvanised steel pipe work, breathers, rubber sealing plugs, 100mm diameter overflow, mechanical water level indicator, bird-proofing, 75mm diameter inlet and 100mm diameter outlets, bolted and vented, access manhole lid, internal and external access ladders as required, walkway around tank with flooring and handrails, outlet unions for 100mm GI Steel Pipes including hole through tank and tank. Hoisted into position approximately 10m above ground level onto and including a galvanised structural steel tank stand 10m high with beam platform to receive tank and tank stand columns mounted and fixed on concrete raft base with base plates and holding down anchor bolts (elsewhere measured), all designed, built and erected in accordance with SANS 10329-2004, SANS 10162 for Structural Steel, SANS 121 SABS 1461, SABS 62 and all in accordance with Engineers Drawings/Details 35016/C20246/DET/004 - 120KL Steel Elevated Tank.	No	1		
<u>Galvanised steel pipes with screwed and socketed joints :</u>					
2	75mm Pipes	m	16		
3	100mm Pipes	m	55		
<u>Extra over galvanised steel pipes with screwed and socketed joints for steel fittings:</u>					
4	100 x 40mm Diameter GI steel reducer	No	1		
5	100 x 140mm Diameter GI steel reducer	No	1		
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		Unit	Quantity	Rate	Amount
6	75mm Diameter GI Bend	No	2		
7	100mm Diameter GI Bend	No	6		
8	100mm Diameter GI Tee junction	No	1		
	<u>Valves, etc.</u>				
9	75mm Diameter RSV flanged cast iron gate valve Class 16 (SABS 664) Right hand closing including installation on vertical GI pipe including cutting pipe where necessary.	No	1		
10	100mm Diameter RSV flanged cast iron gate valve Class 16 (SABS 664) Right hand closing including installation on vertical GI pipe including cutting pipe where necessary.	No	3		
11	80mm Diameter VOSA Ball Float Valve (SABS 1123 T16), including installation.	No	1		
	<u>Testing :</u>				
12	Testing complete elevater tank installation and water and fire pipe line systems from tank.	Item			
	<u>BUILDERS WORK FOR ELEVATED STEEL WATER TANK BASE</u>				
	<u>The following in Builders Work for Elevated Steel Water Tank Base, etc.:</u>				
13	Clearing the area of the site to be built upon of all grass, weeds, shrubs, trees with trunks not exceeding 200mm girth, debris, etc., including grubbing up all roots, scoffling up as required and cart away all vegetation and debris.	m ²	50		
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		Unit	Quantity	Rate	Amount
14	Strip topsoil layer average 150mm thick and stockpile on site for later re-use.	m ³	8		
15	Excavate in pickable material to reduce levels for raft foundation base exceeding not exceeding 2m deep.	m ³	33		
16	Risk of collapse to sides of raft foundation base not exceeding 1,5m deep.	m ²	19		
17	Trim and level off surface of ground to receive concrete, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 93% Mod. AASHTO maximum density.	m ²	50		
18	Backfilling with selected excavated material from excavations or stockpiles, compacted to a density of at least 95% Mod. AASHTO maximum density in 150mm layers.	m ³	1		
19	Filling with approved G7 quality material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density in 150mm layers under raft foundation base.	m ³	8		
20	Filling with approved G5 quality material supplied and carted onto site by the Contractor, compacted to a density of at least 98% Mod. AASHTO maximum density in 150mm layers under raft foundation base.	m ³	8		
21	Carting away excavated material off site to a site located by the contractor.	m ³	32		
22	Modified AASHTO prescribed density test on filling.	No	3		
23	15Mpa Mass Concrete in blinding layer under raft foundation base.	m ³	3		
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		Unit	Quantity	Rate	Amount
24	30Mpa/19mm Reinforced Concrete in raft foundation base.	m ³	23		
25	Steel reinforcement in varying diameters to structural concrete work.	Tonnes	2		
26	Smooth formwork to sides of raft base, slabs, etc. ne 300mm high.	m	28		
27	Finishing top surfaces of concrete with a power float.	m ²	46		
28	M24 Stainless Steel Holding Down Anchor bolts x 650mm Long supplied with tank and bolted into concrete raft base, including drilling and setting up and aligning in position.	No	16		
29	1:3 Cement : Sand Grout bedding approximately 10mm thick under 260 x 260mm base plates, well rammed and neatly worked off as necessary.	No	4		
<u>Test Blocks:</u>					
30	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	1		
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<p>The bottom of the fence shall be located at a uniform distance above the ground line, but no more than 50mm. Large surface irregularities will be closed with fencing as instructed.</p> <p>The tendered rate shall include full compensation for the clearing of the fence line, including the removal of stones, the removal and grubbing of trees and tree stumps (except large trees and stumps), cutting of branches, backfilling of cavities and the compaction of backfill material to 90% of Modified AASHTO density, demolishing of structures and the removal and disposal of material resulting from clearing operations at an approved spoil site.</p> <p><u>Levelling of Ground</u></p> <p>On completion of the erection of the fence, the Contractor shall level existing ground flush with the bottom edge of the mesh.</p> <p><u>Classification of Excavated Material</u></p> <p>Prices for all post excavations shall include for excavations in earth, soft and/or hard rock.</p> <p>No extra over rate will be entertained for the occurrence of rock.</p> <p><u>Disposal of Surplus Excavated Material</u></p> <p>All surplus earth from the excavations shall be deposited and roughly levelled on site or carted away as directed.</p>				
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<p><u>Note:</u></p> <p>The Bidder/Contractor should ensure that all the materials used fully comply with the prescribed SABS/SANS codes and minimum performance requirements. Samples of fencing materials will be tested for compliance to the specifications and should the tests be negative the Bidder/Contractor will have to replace the materials at their own cost and source an alternative supplier that complies with the specifications.</p> <p><u>SITE CLEARANCE</u></p> <p><u>Site Clearance, etc :</u></p> <p>1 Allow for clearing site for the width of 1000mm where fencing is to be erected including removing trees, shrubs etc. not exceeding 200mm girth, grubbing up roots and roughly levelling.</p> <p><u>GALVANISED SECURITY FENCING</u></p> <p><u>Galvanised 'ClearView/Transparent' Type Security Fencing:</u></p> <p><u>Note: (Refer to Architects Fence Details Drawing (Main Site) for Detail of Steel Security Fencing)</u></p> <p>Contractor is to ensure the following is submitted when required and is to make provision in their rates for any costs associated with these required submittals.</p> <p>A. Certificate of compliance for materials and coatings</p> <p>B. Shop drawings for gates</p> <p>C. Quality control program shall be submitted to the Architect/Engineer for review prior to commencement of any work</p>				
	m ²	116		RATE ONLY
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<p>C. Concrete footings shall be carried down to at least the depth indicated on the design documents and shall not be smaller than the dimensions shown. Where a rock layer is encountered within the required depth to which the post is to be erected, a hole of a diameter slightly larger than the largest dimension of the post may be drilled into the rock and the post grouted in. Then the regular concrete footing shall be placed between the top of the rock and the top of the footing elevation as shown on the design documents. Posts shall be approximately centered in their footings. All concrete shall be placed promptly and consolidated by tamping or other approved methods.</p> <p>D. Where the ground is firm enough to permit excavation of the post hole to neat lines, the concrete may be placed without forms by completely filling the hole. Curing may be achieved by covering the concrete with not less than four inches of loose moist material immediately after placing concrete, or by using a curing compound. All excess material from footings, including loose material used for curing, shall be disposed of as directed by the Engineer</p> <p>E. Where the ground cannot be satisfactorily excavated to neat lines, forms shall be used to place concrete for footings. Under these conditions the earth and forms coming in contact with the concrete shall be moistened and all ponded water shall be removed from the hole prior to placing concrete. When forms are removed, the footing shall be backfilled with moistened material, and thoroughly tamped. The top of the concrete shall then be covered with not less than 100 mm of loose moistened material or use curing compound if the 7-days cure is not completed. All excess material from footings, including loose material used for curing, shall be disposed of as directed.</p> <p>Gates:</p> <p>Gates shall be installed at the locations shown. Hinged gates shall be mounted to swing as indicated. Latches, stops, and keepers shall be installed as required. Slide gates shall be installed as recommended by the manufacturer.</p>				
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		Unit	Quantity	Rate	Amount
Adjusting Gates:					
Adjust gate to operate smoothly, easily, and quietly, free from binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.					
Lubricate hardware and other moving parts.					
<u>Welded galvanised clear view transparent type security mesh panel fencing in fixed panels of varying sizes fixed to posts between brick piers in existing boundary wall with hot dipped galvanised coating then marine fusion bond coated or equivalent duplex corrosion protection system to provide a 10 year guarantee, all in strict accordance with manufacturers specifications and instructions.</u>					
2	1 800mm High transparent clear view type hot dipped galvanised and then marine fusion bond coated, or equivalent duplex corrosion protection system, steel welded mesh panels in panels 3490mm wide x 1800mm high, with panel apertures of 76.2 x 12.7mm of 3.5mm diameter coated wire and the panel shall be reinforced with 4 x 50mm deep 'V' formation horizontal recessed bands for rigidity and the panel shall have 2 x 75mm 70 degree flanges along the sides, and panel shall have 1 x 90 degree flange along top and 1 x 30 degree flange along the toe, with integrated rigid angle, panel posts shall have a flush panel post finish with no climbing aid, (posts elsewhere measured). Panel shall be affixed to posts over 48 line wires with and including single bolt comb clamps and using anti vandal bolts, with all panels and fixtures galvanised and then marine fusion bondcoated or equally approved, etc.	No	2		RATE ONLY
3	Ditto, but in panel size 3570mm wide x 1800mm high	No	3		RATE ONLY
4	Ditto, but in panel size 3900mm wide x 1800mm high	No	1		RATE ONLY
5	Ditto, but in panel size 3940mm wide x 1800mm high	No	7		RATE ONLY
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		Unit	Quantity	Rate	Amount
6	Ditto, but in panel size 3980mm wide x 1800mm high	No	3		RATE ONLY
7	100mm High toughened steel 'Castle' type spike topping, hot dipped galvanised then marine fusion bond coated, or equal equivalent duplex corrosion protection system to provide 10 years guarantee, fixed to panel edge of fencing internally at 150mm intervals using Anti-vandal bolts.	m	60		RATE ONLY
8	Hot dipped galvanised and marine fusion bond coated or equivalent protection system steel Taper Locking Post 1800mm long x 85mm wide tapering to 45mm with a depth of 85mm and posts shall include 'Locking Recess Mechanism' to secure panel edge and posts sealed with a UV stabilized polymer cap.	No	16		RATE ONLY
9	Hot dipped galvanised and marine fusion bond coated or equivalent protection system steel Rectangular Post 1800mm long x 85mm wide posts fixed to brickwork and shall include 'Locking Recess Mechanism' to secure panel edge and posts sealed with a UV stabilized polymer cap.	No	32		RATE ONLY
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		Unit	Quantity	Rate	Amount
	<u>Welded galvanised clear view transparent type security mesh panel fencing with hot dipped galvanised coating then marine fusion bond coated or equivalent duplex corrosion protection system to provide a 10 year guarantee, all in strict accordance with manufacturers specifications and instructions and in accordance with Architects Drawing/Details A20246-68 - Fencing Details (Main Site).</u>				
10	2 400mm High transparent clear view type hot dipped galvanised and then marine fusion bond coated, or equivalent duplex corrosion protection system, steel welded mesh panels in panels 3305mm wide x 2400mm high, with panel apertures of 76.2 x 12.7mm of 3.5mm diameter coated wire and the panel shall be reinforced with 4 x 50mm deep 'V' formation horizontal recessed bands for rigidity and the panel shall have 2 x 75mm 70 degree flanges along the sides, and panel shall have 1 x 90 degree flange along top and 1 x 30 degree flange along the toe, with integrated rigid angle, panel posts shall have a flush panel post finish with no climbing aid, (posts elsewhere measured). Panel shall be affixed to post over 48 line wires with and including single bolt comb clamps and using anti vandal bolts, with all panels and fixtures galvanised and then marine fusion bondcoated or equally approved, etc.	m	116		RATE ONLY
11	Extra for 300mm Under-Dig to base of fence, including all excavations, backfilling, etc,	m	116		RATE ONLY
12	100mm High toughened steel 'Shark Tooth' type spike topping, hot dipped galvanised then marine fusion bond coated, or equal equivalent duplex corrosion protection system to provide 10 years guarantee, fixed to panel edge of fencing internally at 150mm intervals using Anti-vandal bolts.	m	116		RATE ONLY
13	Hot dipped galvanised and marine fusion bond coated or equivalent protection system steel Taper Locking Post 3600mm long x 85mm wide tapering to 45mm with a depth of 85mm and posts shall include 'Locking Recess Mechanism' to secure panel edge and posts sealed with a UV stabilized polymer cap, with and including 25MPa, 450 x 450 x 900mm concrete base, excavations, backfilling, carting away, etc.	No	36		RATE ONLY
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		Unit	Quantity	Rate	Amount
	<u>Galvanised Seel Gates, etc.</u>				
14	<p>Security swing gate 1000 x 2400mm high overall to Public Entrance in single leaf of 3.5mm diameter galvanized and marine fusion bond coated wire or equally approved protective system with aperture size 76.2mm x 12.7mm; panel reinforced with 4 x 50mm deep "V" formation horizontal recessed bands for rigidity, 2 x 75mm 70 degree anti vandal flanges, line wire secure connections, locking recess mechanism, 1 x 90 degree flange along top and 1 x 30 degree along toe with all connections and joints welded to form rigid frames or assembled with corner fittings, with 100mm High toughened steel 'Shark Tooth' type spike topping, complete.</p> <p>All with hot dipped galvanized finish then marine fusion bond coated or equivalent duplex corrosion protection system, inclusive of 80 x 100mm square gate posts with stays set in and including rails, 450 x 450 x 900mm 25Mpa concrete bases, including all excavations, backfilling, carting away, etc, and hinges shall not twist or turn under the action of the gate and shall be arranged that a closed gate cannot be lifted off the hinges to obtain entry, all in accordance with manufacturers specifications and instructions. - (See Architects Door & Gate Schedule A20246 - 41 - D24)</p>	No	1		RATE ONLY
15	<p>Security double swing gate 1940 x 2400mm high overall to Public Main Entrance in two equal leaves of 3.5mm diameter galvanized and marine fusion bond coated wire or equally approved protective system with aperture size 76.2mm x 12.7mm; panel reinforced with 4 x 50mm deep "V" formation horizontal recessed bands for rigidity, 2 x 75mm 70 degree anti vandal flanges, line wire secure connections, locking recess mechanism, 1 x 90 degree flange along top and 1 x 30 degree along toe with all connections and joints welded to form rigid frames or assembled with corner fittings, with 100mm High toughened steel 'Shark Tooth' type spike topping, complete.</p>				
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		Unit	Quantity	Rate	Amount
	All with hot dipped galvanized finish then marine fusion bond coated or equivalent duplex corrosion protection system, inclusive of 80 x 100mm square gate posts with stays set in and including rails, 450 x 450 x 900mm 25Mpa concrete bases, including all excavations, backfilling, carting away, etc, and hinges shall not twist or turn under the action of the gate and shall be arranged that a closed gate cannot be lifted off the hinges to obtain entry, all in accordance with manufacturers specifications and instructions. - (See Architects Door & Gate Schedule A20246 - 43 - D26)	No	1		RATE ONLY
16	Security sliding gate 3000 x 2400mm high overall to Staff Vehicle Entrance in single leaf of 3.5mm diameter galvanized and marine fusion bond coated wire or equally approved protective system with aperture size 76.2mm x 12.7mm; panel reinforced with 4 x 50mm deep "V" formation horizontal recessed bands for rigidity, 2 x 75mm 70 degree anti vandal flanges, line wire secure connections, locking recess mechanism, 1 x 90 degree flange along top and 1 x 30 degree along toe with all connections and joints welded to form rigid frames or assembled with corner fittings, with 100mm High toughened steel 'Shark Tooth' type spike topping, complete with hot dipped galvanized finish then marine fusion bond coated or equivalent duplex corrosion protection system, inclusive of 80 x 100mm square gate posts with stays set in and including rails, 450 x 450 x 900mm 25Mpa concrete bases, including all excavations, backfilling, carting away, etc. with all fittings, brackets, rails and rear wheel tracks being standard manufactured products for the intended application, all in accordance with manufacturers specifications and instructions. - (See Architects Door & Gate Schedule A20246 - 44 - D27)	No	1		RATE ONLY
17	Security sliding gate 5000 x 2400mm high overall to Magistrates & Courtyard Entrances in single leaf of 3.5mm diameter galvanized and marine fusion bond coated wire or equally approved protective system with aperture size 76.2mm x 12.7mm; panel reinforced with 4 x 50mm deep "V" formation horizontal recessed bands for rigidity, 2 x 75mm 70 degree anti vandal flanges, line wire secure connections, locking recess mechanism, 1 x 90 degree flange along top and 1 x 30 degree along toe with all connections and joints welded to form rigid frames or assembled with corner fittings, with 100mm High toughened steel 'Shark Tooth' type spike topping.				
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	Complete with hot dipped galvanized finish then marine fusion bond coated or equivalent duplex corrosion protection system, inclusive of 80 x 100mm square gate posts with stays set in and including rails, 450 x 450 x 900mm 25Mpa concrete bases, including all excavations, backfilling, carting away, etc. with all fittings, brackets, rails and rear wheel tracks being standard manufactured products for the intended application, all in accordance with manufacturers specifications and instructions. - (See Architects Door & Gate Schedule A20246 - 42 - D25)	No	2		RATE ONLY
18	Supply 50 mm "Viro" Padlocks and Keys (or equal approved)	No	5		RATE ONLY
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<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Mechanical Engineer's drawings and Specifications. Tenderer's attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole of the heating, ventilation and air conditioning installation. The contractor has to allow for these costs in his/her unit rates.</p> <p>All equipment as measured shall be deemed to be complete as described in the specifications and include fixing on mounting brackets if so required, connection to water supplies, waste and or overflow pipe work, etc.</p> <p>Every system supplied and installed under the Airconditioning shall be guaranteed for at least one (1) year from the date of Practical Completion against breakdown and/or faulty workmanship and shall be replaced free of charge, irrespective of the manufacturers or suppliers guarantee. All repair and replacement costs shall be borne by the Contractor.</p> <p>Electrical work shall be carried out in accordance with SABS 0142 code of practice as described.</p> <p>Anti-vibration mountings, supports, hangers, brackets and accessories are to be used where required to the satisfaction of the Engineer.</p> <p>Rates are to include for condensate drainage piping from evaporator unit to drains including any necessary PVC sleeves through walls.</p> <p>Although shortened descriptions had been used in this bill, tenderers must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p>				
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<p>Section No. 9</p> <p>Bill No. 5</p> <p>Mechanical Airconditioning And Ventilation</p>				

	Unit	Quantity	Rate	Amount
<p>Where brand or trade names are referred to in this bill of quantities, these shall indicate the quality and type of material or fitting required and no substitution of materials so specified will be permitted unless the prior authority of the Engineer has been obtained in writing.</p> <p>The Mechanical Contractor responsible for the works must have the following pre-qualifications:</p> <p>1) Trade Tested</p> <p>2) Must have experience in Ventilation Installations</p> <p>3) Must be an Accredited Grade ME Contractor (Grading as applicable to the value of works)</p> <p><i>Note : The Work shall at all times, for the duration of the sub-contract, be carried out under the supervision of a competent representative of the AC&V Sub-contractor in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended.</i></p> <p><u>Compliance, Preliminary & General Items, (Contractual Items, Fixed Cost Items, Time Related Items & General Items), etc.</u></p> <p>The Mechanical Contractor responsible for the works is to note that the works will be done as a Domestic sub-contract to the Main Contractor. There is no separate Preliminaries and compliance Bill for the sub-contractor and the Mechanical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries & General and Compliance items applicable to this scope of works, including but not limited to :</p> <p>1) Provision of a Sub-Contract Construction Guarantee, in terms of the Sub-contract Agreement.</p>				
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		Unit	Quantity	Rate	Amount
<u>Outdoor Units</u>					
<u>VRV IV heat recovery outdoor unit including delivery into position</u>					
1	40kW Cooling and 45kW Heating Capacity Heat Recovery VRV / VRF / DVM Condenser (REYQ14U or Similar)	Sum	1		
2	83.9kW Cooling and 94kW Heating Capacity Heat Recovery VRV / VRF / DVM Condenser (REYQ30U or Similar) (REYO12U & REYO18U)	Sum	1		
<u>Branch Selector Units</u>					
3	1 Way Box (BS1Q10A or Similar)	No	2		
4	1 Way Box (BS1Q25A or Similar)	No	4		
5	4 Way Box (BS4Q14A or Similar)	No	1		
6	6 Way Box (BS6Q14A or Similar)	No	1		
<u>Indoor Units</u>					
7	2.8 kW, 600 x 600 Cassette Unit	No	2		
8	3.5 kW, 600 x 600 Cassette Unit	No	5		
9	4.5 kW, 600 x 600 Cassette Unit	No	1		
10	5 kW, 600 x 600 Cassette Unit	No	4		
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Mechanical Airconditioning And Ventilation					
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		Unit	Quantity	Rate	Amount
34	5 kW 600 x 600 Ceiling Cassette Unit, with piping	Sum	1		
	<u>Wired Controls for Split Units</u>				
35	Wired Controls for Split Units to be placed adjacent light switches in respective rooms	No	4		
	<u>Condensate Pumps</u>				
36	Condensate pump kit for Mid-wall Unit	No			RATE ONLY
	<u>PVC SANS Approved Conduit / Accessories</u>				
	<u>Supply, delivery and installation of conduit and conduit accessories on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, couplings, saddles, etc.</u>				
37	25mm Diameter conduit	m	440		
38	25mm Diameter conduit, flexible	m	22		
39	50mm Diameter conduit box for 25mm conduit	No	39		
40	100mm x 50mm x 50mm Conduit box	No	24		
	<u>Existing Units</u>				
41	Carefully remove set aside and hand over the existing air-conditioning mid-wall split systems to the Client for possible re-use thereof.	No	15		
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		Unit	Quantity	Rate	Amount
<u>Passive Fire Protection</u>					
<u>Passive fire protection sealants and application to penetrations through fire walls (120 minute)</u>					
42	Ø20 mm Refrigerant Pipe Penetration	No	2		
43	Ø40 mm Refrigerant Pipe Penetration	No	4		
44	Ø50 mm Refrigerant Pipe Penetration	No	10		
45	Ø20 mm PVC Conduit Penetration	No	15		
46	Ø40 mm PVC Conduit Penetration	No	10		
47	Ø50 mm PVC Conduit Penetration	No	10		
<u>VENTILATION INSTALLATION</u>					
<u>EAF-1</u>					
48	In line axial fan extracting 150 l/s at a static pressure 150 Pa (Silent Series or similar) for a quiet running system	No	1		
49	Galvanised uninsulated sheet metal ducting, inclusive of branch ducting, flow dampers and flexible ducting	Sum	1		
50	Extract air disc valve 150 diameter	No	3		
51	Extract air disc valve 200 diameter	No			RATE ONLY
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
52	Natural Anodized Aluminium Weather Louvre 300 x 200 mm <u>FAF-1</u>	Sum	1		
53	In line axial fan extracting 234 l/s at a static pressure 350 Pa including two off 1.5 D sound attenuators for a quiet running system	No	1		
54	Galvanised uninsulated sheet metal ducting, inclusive of branch ducting, flow dampers and flexible ducting	Sum	1		
55	Supply air disc valve 150 diameter	No	10		
56	Supply air disc valve 200 diameter	No			RATE ONLY
57	Natural Anodized Aluminium Weather Louvre 600 x 300 mm, including washable filters <u>FAF-2</u>	Sum	1		
58	In line axial fan supplying 60 l/s at a static pressure 120 Pa (Silent Series or similar) for a quiet running system	No	1		
59	Galvanised uninsulated sheet metal ducting, inclusive of branch ducting, flow dampers and flexible ducting	Sum	1		
60	Supply air disc valve 150 diameter	No	2		
61	Supply air disc valve 200 diameter	No			RATE ONLY
62	Natural Anodized Aluminium Weather Louvre 200 x 150 mm, including washable filters	Sum	1		
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
<u>FAF-3 & FAF-4</u>					
63	In line axial fan extracting 407 l/s at a static pressure 200 Pa including two off 1.5 D sound attenuators for a quiet running system	No	2		
64	Galvanised uninsulated sheet metal ducting, inclusive of branch ducting, flow dampers and flexible ducting	Sum	2		
65	Supply air disc valve 150 diameter	No	2		
66	Supply air Swirl Diffuser, radial distribution Ø250 Trox TDF-C or similar	No	2		
67	Natural Anodized Aluminium Weather Louvre 500 x 400 mm, including washable filters	Sum	2		
<u>FAF-5</u>					
68	In line axial fan extracting 220 l/s at a static pressure 200 Pa including two off 1.5 D sound attenuators for a quiet running system	No	1		
69	Galvanised uninsulated sheet metal ducting, inclusive of branch ducting, flow dampers and flexible ducting	Sum	1		
70	Supply air Swirl Diffuser, radial distribution Ø250 Trox TDF-C or similar	No			RATE ONLY
71	Natural Anodized Aluminium Weather Louvre 500 x 300 mm, including washable filters	No	1		
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Mechanical Airconditioning And Ventilation					
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		Unit	Quantity	Rate	Amount
90	Provision of three sets of operating and maintenance manuals as required.	Item			
91	Provision of 'As-built' drawings, manuals, etc.	Item			
92	Guarantee for the next 12 months including quarterly maintenance checks.	Item			
93	Housekeeping with coding and labelling of all plant and equipment and wiring, etc.	Item			
<u>SUNDRIES</u>					
<u>Sundries :</u>					
94	Workshop drawings and equipment schedule submittals for approval prior to ordering for all units.	Item			
95	Training of staff on correct operation of units as required.	Item			
Carried to Collection				R	
Section No. 9					
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Mechanical Airconditioning And Ventilation					
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BILL NO. 5
MECHANICAL AIRCONDITIONING AND VENTILATION
COLLECTION

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SECTION NO. 9

DOJ CO-FUNDED ITEMS

BILL NO. 6

ELECTRICAL ACCESS CONTROL SYSTEM

PREAMBLES

For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.

The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:

Section A: Preamble to Standard Specifications

Section B: Installation Specifications

Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.

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Section No. 9

Bill No. 6

Electrical Access Control System

	Unit	Quantity	Rate	Amount
<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in their unit rates.</p> <p>Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p> <p><u>Compliance, Preliminary & General Items, (Contractual Items, Fixed Cost Items, Time Related Items & General Items), etc.</u></p> <p>The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub-contract to the Main Contractor. There is no separate Preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries & General and Compliance items applicable to this scope of works, including but not limited to :</p> <p>1) Provision of a Sub-Contract Construction Guarantee, in terms of the Sub-contract Agreement.</p> <p>2) Provision of an Advanced Payment Guarantee, in the amount as is required for the procurement of any materials/equipment to facilitate the completion of the works.</p> <p>3) Provision of Insurances such as Contract Works, Special, Supplementary, Public Liability Insurances, as deemed necessary in the contract, etc.</p> <p>4) Allowance for compliance with Construction Regulations, OH&S Specification by the Employer/Agent & the OH&S Act.</p>				
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<p>Section No. 9</p> <p>Bill No. 6</p> <p>Electrical Access Control System</p>				

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	Unit	Quantity	Rate	Amount
8) Training of Clients representative(s) at end of defects liability period				
9) Provision of record drawings				
10) Provision of Operating and Maintenance manuals				
<u>ACCESS CONTROL SYSTEM</u>				
<u>Video Phone Device</u>				
1 Allow for the supply, installation, programming, testing and commissioning of a colour video phone device (door station), complete with suitable 220 V / 24 V transformer.	No	1		
2 Allow for the supply, installation, programming, testing and commissioning of a colour video phone device (desk station), complete with suitable 220 V / 24 V transformer.	No	1		
<u>Electro-magnetic Door Lock</u>				
3 Allow for the supply, installation, programming, testing and commissioning of an electro-magnetic door lock, complete with all necessary brackets, suitable 220 V / 24 V transformer and release mechanism (green break glass unit)	No	4		
4 Allow for the supply, installation, programming, testing and commissioning of a "no-touch" electromagnetic door lock release, complete with all outlet boxes, covers, etc.	No	4		
<u>Door Keypads / Tag Release / No Touch</u>				
5 Allow for the supply, installation, programming, testing and commissioning of a door keypad reader, complete with all necessary brackets	No	4		
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Bill No. 6				
Electrical Access Control System				

		Unit	Quantity	Rate	Amount
	<u>Interconnecting Cable</u>				
6	Allow for the supply, installation, testing and commissioning of all necessary interconnecting cables (conduit and conduit accessories provided by Electrical Sub-contractor)	m	224		
	<u>PVC SANS Approved Conduit</u>				
	<u>Supply, delivery and installation of conduit on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, couplings, saddles, etc.</u>				
7	20mm Diameter conduit	m	11		
8	25mm Diameter conduit	m	210		
9	32mm Diameter conduit	m	5		
10	50mm Diameter conduit	m	2		
11	20mm Diameter conduit, flexible	m	1		
12	25mm Diameter conduit, flexible	m	11		
	<u>PVC SANS Approved Conduit Accessories</u>				
	<u>Supply, delivery and installation of conduit accessories on surface, in ceiling void, chased into or cast into concrete works and / or brickwork, including bushes, locknuts, mounting screws, cover screws, etc.</u>				
13	50mm Diameter conduit box for 20mm conduit	No	14		
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	Section No. 9				
	Bill No. 6				
	Electrical Access Control System				

		Unit	Quantity	Rate	Amount
<u>TESTING AND COMMISSIONING</u>					
<u>Testing and Commissioning, etc. :</u>					
24	Testing and commissioning of the entire installation, complete	Item			
25	Provision of three sets of operating and maintenance manuals as required.	Item			
26	Provision of 'As-built' drawings, manuals, etc.	Item			
27	Guarantee for the next 12 months including quarterly maintenance checks	Item			
28	Housekeeping with coding and labelling of all plant and equipment and wiring, etc.	Item			
<u>SUNDRIES</u>					
<u>Sundries :</u>					
29	Workshop drawings and equipment schedule submittals for approval, as required, prior to ordering of equipment, etc	Item			
30	Training of staff on correct operation of equipment as required.	Item			
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Section No. 9					
Bill No. 6					
Electrical Access Control System					

BILL NO. 6
ELECTRICAL ACCESS CONTROL SYSTEM
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	Unit	Quantity	Rate	Amount
<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in their unit rates.</p> <p>Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p> <p><u>Compliance, Preliminary & General Items, (Contractual Items, Fixed Cost Items, Time Related Items & General Items), etc.</u></p> <p>The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub-contract to the Main Contractor. There is no separate Preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries & General and Compliance items applicable to this scope of works, including but not limited to :</p> <p>1) Provision of a Sub-Contract Construction Guarantee, in terms of the Sub-contract Agreement.</p> <p>2) Provision of an Advanced Payment Guarantee, in the amount as is required for the procurement of any materials/equipment to facilitate the completion of the works.</p> <p>3) Provision of Insurances such as Contract Works, Special, Supplementary, Public Liability Insurances, as deemed necessary in the contract, etc.</p> <p>4) Allowance for compliance with Construction Regulations, OH&S Specification by the Employer/Agent & the OH&S Act.</p>				
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Section No. 9				
Bill No. 7				
Electrical Solar System				

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	Unit	Quantity	Rate	Amount
8) Training of Clients representative(s) at end of defects liability period				
9) Provision of record drawings				
10) Provision of Operating and Maintenance manuals				
<u>SPECIALIST EQUIPMENT</u>				
<u>Hybrid Solar Installation</u>				
1 Supply, delivery, installation, testing and commissioning of the 150kW (3 Phase / 3 phase) Hybrid Solar setup with 3 x 68kW Lithium-ion Batteries and 127 x 540W tier 1 Solar Panels, and remote alarm panel, all as detailed in the Project Specification	No	1		
<u>TESTING AND COMMISSIONING</u>				
<u>Testing and Commissioning, etc. :</u>				
2 Testing and commissioning of the entire installation, complete	Item			
3 Provision of three sets of operating and maintenance manuals as required.	Item			
4 Provision of 'As-built' drawings, manuals, etc.	Item			
5 Guarantee for the next 12 months including quarterly maintenance checks	Item			
6 Housekeeping with coding and labelling of all plant and equipment and wiring, etc.	Item			
Carried to Collection			R	
Section No. 9				
Bill No. 7				
Electrical Solar System				

		Unit	Quantity	Rate	Amount
<u>SUNDRIES</u>					
<u>Sundries :</u>					
7	Workshop drawings and equipment schedule submittals for approval, as required, prior to ordering of equipment, etc	Item			
8	Training of staff on correct operation of equipment as required.	Item			
Carried to Collection				R	
Section No. 9					
Bill No. 7					
Electrical Solar System					
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ELECTRICAL SOLAR SYSTEM
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	Unit	Quantity	Rate	Amount
<p>The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in their unit rates.</p> <p>Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquaint themselves with the full description and specifications of the equipment.</p> <p><u>Compliance, Preliminary & General Items, (Contractual Items, Fixed Cost Items, Time Related Items & General Items), etc.</u></p> <p>The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub-contract to the Main Contractor. There is no separate Preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries & General and Compliance items applicable to this scope of works, including but not limited to :</p> <p>1) Provision of a Sub-Contract Construction Guarantee, in terms of the Sub-contract Agreement.</p> <p>2) Provision of an Advanced Payment Guarantee, in the amount as is required for the procurement of any materials/equipment to facilitate the completion of the works.</p> <p>3) Provision of Insurances such as Contract Works, Special, Supplementary, Public Liability Insurances, as deemed necessary in the contract, etc.</p> <p>4) Allowance for compliance with Construction Regulations, OH&S Specification by the Employer/Agent & the OH&S Act.</p>				
Carried to Collection			R	
Section No. 9				
Bill No. 8				
Electrical Standby Generator Set				

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	Unit	Quantity	Rate	Amount
8) Training of Clients representative(s) at end of defects liability period				
9) Provision of record drawings				
10) Provision of Operating and Maintenance manuals				
<u>SPECIALIST EQUIPMENT</u>				
<u>Standby Generator Set</u>				
1 Supply, delivery, installation, testing and commissioning of the 80 kVA (3 Phase / 3 phase) Standby Generator set, and remote alarm panel, as detailed in the Project Specification	No	1		
<u>TESTING AND COMMISSIONING</u>				
<u>Testing and Commissioning, etc. :</u>				
2 Testing and commissioning of the entire installation, complete	Item			
3 Provision of three sets of operating and maintenance manuals as required.	Item			
4 Provision of 'As-built' drawings, manuals, etc.	Item			
5 Guarantee for the next 12 months including quarterly maintenance checks	Item			
6 Housekeeping with coding and labelling of all plant and equipment and wiring, etc.	Item			
Carried to Collection			R	
Section No. 9				
Bill No. 8				
Electrical Standby Generator Set				

		Unit	Quantity	Rate	Amount
<u>SUNDRIES</u>					
<u>Sundries :</u>					
7	Workshop drawings and equipment schedule submittals for approval, as required, prior to ordering of equipment, etc	Item			
8	Training of staff on correct operation of equipment as required.	Item			
Carried to Collection				R	
Section No. 9					
Bill No. 8					
Electrical Standby Generator Set					
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BILL NO. 8
ELECTRICAL STANDBY GENERATOR SET
COLLECTION

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	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 9</u></p> <p><u>DOJ CO-FUNDED ITEMS</u></p> <p><u>BILL NO. 9</u></p> <p><u>JOINERY FITTINGS TO COURT ROOM 2</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>Particle board:</u></p> <p>Particle board shall comply with the following specifications: a) SANS 1300 Particle board: exterior and flooring type b) SANS 1301 Particle board: interior type.</p> <p><u>Joinery:</u></p> <p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.</p> <p><u>Fixing:</u></p> <p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p>				
Carried to Collection			R	
Section No. 9				
Bill No. 9				
Joinery Fittings To Court Room 2				

	Unit	Quantity	Rate	Amount
<p>Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs in brickwork or concrete at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere.</p> <p><u>JOINERY FITTINGS</u></p> <p>General</p> <p>The following joinery and cupboard fittings are given as complete units i.e. the components of the units have not been given separately. Descriptions of such units shall, therefore, be deemed to include all components, assembling, housing, notching, glueing, blocking, planting-on and screwing with countersunk screws, edge strips, thermosetting plastic laminate, glass, ironmongery, metalwork, paint or varnish finishes, etc</p> <p>Prices are to include for all necessary filler pieces against walls etc and fittings are deemed to include clear sealant along all edges between tiles/walls and counter tops and around the edge of sinks/fittings where applicable.</p> <p>References</p> <p>References given in descriptions refer to the respective types of fittings detailed on the architect's drawing as numbered and referenced and annexed to these bills of quantities for tender purposes.</p>				
<p>Carried to Collection</p>			R	
<p>Section No. 9</p> <p>Bill No. 9</p> <p>Joinery Fittings To Court Room 2</p>				

	Unit	Quantity	Rate	Amount
<u>Court Room No 2 Joinery Fittings, etc :</u>				
1 Magistrates Bench in Court Room 02, complete - Size approximately 5162 x 1074mm high overall, consisting of OWA Idealux LT acoustic panelling as per manufacturers specifications one side and 22mm veneered panelling with 19mm hardwood edging other side, fixed to 96 x 50mm horizontal & vertical timber support framework with 100mm cavitybatt / cavitylite insulation inserted into cavity between panelling and finished along top with a 75 x 215mm rebated hardwood top rail and 38 x 128mm hardwood rail to front face on top edge to form 10mm shadowline and bottom to receive a hardwood timber skirting to form a 10mm shadowline. One side to receive 5162 x 600 x 40mm veneered faced timber panelling with 20mm hardwood edging countertop with 32 x 69mm hardwood horizontal support on 3 No 70 x 70mm hardwood vertical posts 790mm high, front side to receive 3030 x 300 x 25mm laminated hardwood seating 450mm high from floor with chamfered edges. All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Magistrates Bench in Courtroom 02 Joinery Detail attached - See A20246 - ARCH - 62).	No	1		
2 Accused Bench in Court Room 02, complete - Size approximately 5162 x 1170mm high overall with layout of one rectangular shape with 800mm wide door on one end, partition consisting of 22mm veneered panelling with 19mm hardwood edging both sides, fixed to 96 x 50mm horizontal & vertical timber support framework with 100mm cavitybatt / cavitylite insulation inserted into cavity between panelling and finished along top with a 75 x 215mm rebated hardwood top rail and 38 x 128mm hardwood rail to one side and a 50 x 170mm hardwood coping to other side with 38 x 128mm hardwood rail to top front edge to form 10mm shadowline to both and bottom to receive a hardwood timber skirting to form a 10mm shadowline, with the floor area between the partitions to receive 20mm thick T&G boarding in a raised platform on 150 x 50mm floor joists at max 600mm centres. Inside of partition area to receive 2405 x 300 x 25mm laminated hardwood seating 450mm high from floor with chamfered edges. All joinery is to receive finish as required (Joinery Fitting is to be priced with reference to and in accordance with Architects Joinery Details for Accused In Courtroom 02 as attached - See A20246 - ARCH - 60).	No	1		
Carried to Collection			R	
Section No. 9				
Bill No. 9				
Joinery Fittings To Court Room 2				
536				

		Unit	Quantity	Rate	Amount
3	Witnesses Bench (Court Room 02), complete - Size approximately 1200 x 1200 x 1170mm high overall with U-shaped layout with floor ramp to one open side, partition consisting of 22mm veneered panelling with 19mm hardwood edging both sides, fixed to 96 x 50mm horizontal & vertical timber support framework with 100mm cavitybatt / cavitylite insulation inserted into cavity between panelling and finished along top with 50 x 170mm hardwood coping with 38 x 128mm hardwood rail to top front edge to form 10mm shadowline all around and bottom to receive a hardwood timber skirting to form a 10mm shadowline, with the floor area between the partitions to receive 20mm thick T&G boarding in a raised platform on 150 x 50mm floor joists at max 600mm centres. All joinery is to receive finish as required (Joinery Fitting is to be priced with reference to and in accordance with Architects Joinery Details for Witnesses Bench as attached - See A20246 - ARCH - 61).	No	1		
4	Stenographer's Table in Court Room 02, complete - Size approximately 2215 x 1070mm high overall with U-shaped layout, Table and Lectern, consisting of 22mm veneered panelling with 19mm hardwood edging both sides, fixed to 96 x 50mm horizontal & vertical timber support framework with 100mm cavitybatt / cavitylite insulation inserted into cavity between panelling and finished along top with a 74 x 215mm rebated hardwood top rail and 38 x 128mm hardwood rail to front face on top edge to form 10mm shadowline and bottom to receive a hardwood timber skirting to form a 10mm shadowline. Projecting table size 1200 x 600 x 40mm veneered faced timber panelling with 20mm hardwood edging countertop with 32 x 69mm hardwood horizontal support on 2 No 70 x 70mm hardwood vertical posts 660mm high, other side to receive 750 x 426 x 1248mm high Lectern of 22mm veneered panelling with 19mm hardwood edging and 16mm hardwood top. All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Stenographer's Table Joinery Details in Courtroom 02 as attached - See A20246 - ARCH - 65).	No	1		
Carried to Collection				R	
Section No. 9					
Bill No. 9					
Joinery Fittings To Court Room 2					

		Unit	Quantity	Rate	Amount
5	Public Benches (Courtroom 02), complete - Size 4000 x 600 x 779mm high overall, consisting of 30 x 80mm vertical and horizontal hardwood framing size 4000 x 600 x 430mm high and 8 vertical framing back post extensions for backrest 275mm high, with 30 x 80mm hardwood framing piece to base fixed to floor with and including countersunk bolts, bench seat to be filled with 40mm laminated hardwood with chamfered edges size 4000 x 570mm and backrest to receive 30mm laminated hardwood back with chamfered edges size 4000 x 240mm set at an angle., All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Public Bench Joinery Details in Both Courtrooms as attached - See A20246 - ARCH - 66).	No	3		
6	Public Benches (Courtroom 02), complete - Size 1500 x 600 x 779mm high overall, consisting of 30 x 80mm vertical and horizontal hardwood framing size 1500 x 600 x 430mm high and 8 vertical framing back post extensions for backrest 275mm high, with 30 x 80mm hardwood framing piece to base fixed to floor with and including countersunk bolts, bench seat to be filled with 40mm laminated hardwood with chamfered edges size 1500 x 570mm and backrest to receive 30mm laminated hardwood back with chamfered edges size 1500 x 240mm set at an angle., All joinery is to receive finish as required. (Joinery Fitting is to be priced with reference to and in accordance with Architects Public Bench Joinery Details in Both Courtrooms as attached - See A20246 - ARCH - 66).	No	1		
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Joinery Fittings To Court Room 2					
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BILL NO. 9
JOINERY FITTINGS TO COURT ROOM 2
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	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 9</u></p> <p><u>DOJ CO-FUNDED ITEMS</u></p> <p><u>BILL NO. 10</u></p> <p><u>ANTI-BANDIT DOORS AND OBSERVATION WINDOWS</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.</p> <p><u>Descriptions:</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers.</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.</p> <p>Metalwork described as holed for bolt(s) shall be deemed to exclude the bolts unless otherwise described.</p> <p>Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p>				
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<p>Section No. 9</p> <p>Bill No. 10</p> <p>Anti-bandit Doors And Observation Windows</p>				

	Unit	Quantity	Rate	Amount
<u>STEEL SECURITY BULLET RESISTANT ANTI-BANDIT DOORS</u>				
<u>Level G3 Bullet Resistant Anti-Bandit Door and 100 x 50mm x 3mm Guage mild steel frame (Code: G3-ABD-RH-VP-A-00) in white oak veneer with 250mm x 500mm high viewing panel glazed in 53mm thick Clear Glass supplied with 5-Pin CISA Dead Lock, continuous roton type hinge, aluminium slam bar with heavy duty door closer (Dorma TS91) and D-Style pull handles, built into brickwalls,</u>				
1 Anti-Bandit Door and Frame, overall size 925 x 2100mm high, complete with viewing panel glazed with 53mm thick bullet proof glass, heavy duty door closer, kick and push plates, etc. built into one brick wall. (See Architects Door Schedule - D08).	No	2		
<u>ALUMINIUM WINDOWS.</u>				
Aluminium windows, etc., are to be constructed and installed in accordance with the guidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAAMSA). These frames cannot be built in and openings must be prepared by the Contractor for the aluminium frame to be fixed into, where after the plaster can be finished up against the frame. All dimensions to be checked and verified on site prior to manufacture.				
Unless otherwise stated ironmongery is to be the manufacturer's standard corrosion resistant ironmongery for the particular product range.				
Glazing is to be carried out in strict accordance with the SANS 0137/2000 Code of Practice: "The Installation of Glazing in Buildings" and where required, safety glazing materials must conform to SANS 1263.				
All opening sashes must be weather and draught proofed using wool pile, vinyl, etc. seals and the perimeter frames sealed to the structure using manufacturer approved sealants.				
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Anti-bandit Doors And Observation Windows				

	Unit	Quantity	Rate	Amount
<p>All aluminium is to be protected after manufacture by removable PVC tape or other approved application. The protection is to be removed only when authorised by the Architect.</p> <p>Any component damaged in any way prior to the completion of the building is to be replaced with new. 'Touching up' of decorative finishes will not be permitted.</p> <p>"The Installation of Glazing in Buildings" and where required, safety glazing materials must conform to SANS 1263 Part 1, 2 & 3 and safety glass must have name of manufacturer permanently marked on each sheet, visible after glazing. Drawings of all sections and fixing details to be used to be submitted for approval and all dimensions are to be verified on site prior to manufacture. All shopfronts and windows must be weatherproofed and sealed where necessary and all aluminium is to be protected during installation and for the duration of construction work by removable PVC tape.</p>				
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<p>Section No. 9</p> <p>Bill No. 10</p> <p>Anti-bandit Doors And Observation Windows</p>				

	Unit	Quantity	Rate	Amount
<p><u>Swartland Kenzo HS219 (or equally approved) Aluminium Windows able to meet the mechanical performance requirements of SANS 613 for wind loads of up to 1500Pa with ANAT-15 natural anodized 15 Microns aluminium frame surfaces to receive 60-80um 'Matt Black' powder coating (for Architectural applications), supplied by specialist supplier/manufacturer complying with SANS 1578 and applied in accordance with SANS 1796 by an approved applicator. Glazing shall be executed strictly in conformance with glass manufacturers recommendations and SANS 10137-2011, all in accordance with SANS 10400 Part B, N and XA, fitted in accordance with manufacturers casement system, plugged and screwed to brickwork or concrete.</u></p> <p><u>Burglar Bars are to be installed to full window sections between reveals, comprising of Trellidor Cottage Guard (or equally approved) burglar bars with 19mm x 12mm aluminium tube with internal 5mm stain treaded bars with fixing action to be reveal fixed and Burglar bars to have matt black finish.</u></p> <p><u>Descriptions in the bills of quantities are to be read in conjunction with the Architects Window Schedules and Details attached. The references given in the descriptions are to the respective types of windows detailed on the Architect's schedules annexed to these Bills of Quantities for tender purposes.</u></p>				
2 Aluminium fixed internal Observation window size 3000 x 1600mm high overall, consisting of two equal fixed sections, all glazed with 38mm Resistoglas Bullet Resistant clear glass, to manufacturers specifications and instructions and all as per Architects Window Schedule Detail - W04.	No	1		
3 Aluminium fixed internal Observation window size 4800 x 1600mm high overall with smaller bottom section size 1600 x 200mm high, consisting of three equal fixed sections and smaller bottom pay window section, all glazed with 38mm Resistoglas Bullet Resistant clear glass, to manufacturers specifications and instructions and all as per Architects Window Schedule Detail - W05.	No	1		
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SECTION NO 10

SMME WORK PACKAGES

SECTION NO.10

SMME WORK PACKAGES

BILL NO. 1

WORK PACKAGES BY SMME'S

WORK PACKAGES TO BE DONE BY SMME'S

PREAMBLES

For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjunction with and shall apply to all items in these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.

The following Provisional Sum Amounts are for work to be carried out by SMME'S as per Work Packages identified by the Client in order to achieve the required SMME Target % of the Contract Value :

The Tenderer must comply with the SMME specification in all respects and achieve a minimum % requirement of the Tendered Contract Value (excluding Socio-Economic Deliverable Allowances, Escalation, Contingency and VAT) towards SMME participation. The pre-defined work packages are listed in the Bill of Quantities below with Provisional Sums given.

The Tenderer is however furthermore encouraged to exceed the minimum % SMME participation of the tender value by identifying other works for appointment of their own SMME's other than the work that is already packaged in the tender below.

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Section No. 10

Bill No. 1

Work Packages By Smme's

R

	Unit	Quantity	Rate	Amount
<p>All work in this section is to be read and dealt with strictly in accordance with the "Specification for the Employment of SMME Sub-Contractors".</p> <p><u>WORK PACKAGES TO BE DONE BY SMME'S</u></p> <p><u>DECANTING - RELOCATION OF OFFICE FURNITURE & EQUIPMENT FROM SITE TO SITE</u></p> <p><u>Decanting - Relocation of Office Furniture & Equipment from Site to Site :</u></p>				
1	Item			250 000 00
Provide the amount of R 250 000.00 (Two Hundred and Fifty Thousand Rands) for the Relocation of Office Furniture & Equipment from the current offices to the decanting site and from the decanting site back to the newly renovated offices on completion of the works, by an SMME Sub-Contractor, executed complete.				
2	Item			
Main Contractors Profit on above item.				
3	Item			
Main Contractors Attendance on ditto.				
<u>BUILDERS WORK - OUTBUILDING B</u>				
<u>Builders Work - Outbuilding B :</u>				
4	Item			330 000 00
Provide the amount of R 330 000.00 (Three Hundred and Thirty Thousand Rand) for the Demolition of the Existing Outbuilding B and all Builders Works Only for the Construction of the New Outbuilding B, complete, (Excluding Electrical & Mechanical Works and other Specialist Work), executed complete, by a SMME Sub-Contractor.				
5	Item			
Main Contractors Profit on above item.				
6	Item			
Main Contractors Attendance on ditto.				
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Work Packages By Smme's				

		Unit	Quantity	Rate	Amount
<u>BUILDERS WORK - ALTERATIONS & RENOVATIONS TO EXISTING ABLUTION OUTBUILDING</u>					
<u>Builders Work - Alterations & Renovations to Existing Ablution Outbuilding :</u>					
7	Provide the amount of R 1 380 000.00 (One Million Three Hundred and Eighty Thousand Rand) for all Builders Work Only for the Alteration, Repairs & Renovations to the Existing Ablution Outbuilding, complete, (Excluding Electrical & Mechanical Works and other Specialist Work), executed complete, by a SMME Sub-Contractor.	Item			1 380 000 00
8	Main Contractors Profit on above item.	Item			
9	Main Contractors Attendance on ditto.	Item			
<u>BUILDERS WORK - CONDENSER PLINTH</u>					
<u>Builders Work - Condenser Plinth :</u>					
10	Provide the amount of R 21 000.00 (Twenty One Thousand Rand) for all Builders Work Only for the Construction of the Condenser Plinth, complete, (Excluding Electrical & Mechanical Works and other Specialist Work), executed complete, by a SMME Sub-Contractor.	Item			21 000 00
11	Main Contractors Profit on above item.	Item			
12	Main Contractors Attendance on ditto.	Item			
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		Unit	Quantity	Rate	Amount
<u>GRASSING - EXTERNAL WORKS</u>					
<u>Grassing - External Works :</u>					
13	Provide the amount of R 67 000.00 (Sixty Seven Thousand Rand) for Grassing, externally to Office Site, (Preparation, topsoil from stock piles, fertilizer, grassing & maintenance), executed complete, by a SMME Sub-Contractor.	Item			67 000 00
14	Main Contractors Profit on above item.	Item			
15	Main Contractors Attendance on ditto.	Item			
<u>TEMPORARY HOADING BARRIER SCREEN</u>					
<u>Temporary Hoarding Barrier Screen :</u>					
16	Provide the amount of R 120 000.00 (One Hundred and Twenty Thousand Rands) for Erecting a Temporary Hoarding Barrier Screen to the Main Office Site and removal on completion, executed complete, by a SMME Sub-Contractor.	Item			120 000 00
17	Main Contractors Profit on above item.	Item			
18	Main Contractors Attendance on ditto.	Item			
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		Unit	Quantity	Rate	Amount
<u>PRECAST CONCRETE PAVING & KERBING - EXTERNAL WORKS ROADS & PARKING</u>					
<u>Precast Concrete Paving & Kerbing - External Works Roads & Parking :</u>					
19	Provide the amount of R 900 000.00 (Nine Hundred Thousand Rand) for Taking up Existing Precast Paving and New Precast Concrete Paving including layerworks and soil poisoning and New Kerbing to External Works Roads & Parking, executed complete, by a SMME Sub-Contractor.	Item			900 000 00
20	Main Contractors Profit on above item.	Item			
21	Main Contractors Attendance on ditto.	Item			
<u>STEEL SECURITY FENCING TO DECANTING SITE - EXTERNAL WORKS</u>					
<u>Steel Security Fencing to Decanting Site - External Works :</u>					
22	Provide the amount of R 495 000.00 (Four Hundred and Ninety Five Thousand Rand) for Steel Security Fencing to Decanting Site External Works, executed complete, by a SMME Sub-Contractor.	Item			495 000 00
23	Main Contractors Profit on above item.	Item			
24	Main Contractors Attendance on ditto.	Item			
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		Unit	Quantity	Rate	Amount
<u>CLEARVIEW TYPE STEEL SECURITY FENCING TO MAIN OFFICE SITE - EXTERNAL WORKS</u>					
<u>Clearview Type Steel Security Fencing to Main Office Site - External Works :</u>					
25	Provide the amount of R 512 000.00 (Five Hundred and Twelve Thousand Rand) for The Removal of Existing Security Fencing and Erection of New Clearview type Steel Security Fencing to the Main Office Site External Works, executed complete, by a SMME Sub-Contractor.	Item			512 000 00
26	Main Contractors Profit on above item.	Item			
27	Main Contractors Attendance on ditto.	Item			
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DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

PART C3: Scope of Work

PG-01.2 (EC) SCOPE OF WORKS – JBCC 2000 PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY		
Tender / Quotation no:	MTH01/2025	Reference no:	

C3. Scope of Works

C3.1 EXTENT OF THE WORKS

The Employer's objective is to repair and renovate the existing Idutywa Magistrates Offices. This requires the provision of extensive renovations to the existing courtrooms, holding cells, administration areas, external works, etc.

The extent of the works is as follows:

- **Building Works** – General repairs and renovations to building works elements including replacing the roof structure and covering to the buildings. This will also include alterations, repairs and renovations of all the buildings on the site.
- **External Works** – Inspection, testing, renovations, repairs and replacing of damaged existing stormwater, water and sewer infrastructures. The scope further includes the provision of new elevated structural water tank, retaining wall structure, perimeter security fencing, gates and the upgrading of roads and parking areas.
- **Electrical Works** - General repairs to existing external and internal electrical works, installations and fittings. The scope includes the re-wiring of existing buildings with new fittings, provision of a public address and evacuation system, optic fiber, data and telephone networks & IT services. Provision of a limited access control system with a standby generator and provision of a new solar system.
- **Mechanical Works** - Testing, servicing, repairs and replacement of air-conditioning system and units throughout the buildings. Provision of firefighting and fire detection equipment with a new early warning detection system and alarm.
- **Decanting Site (Separate Nearby Site)** – General site clearance, bulk earthworks, storm water drainage, soil drainage and sewer reticulation, water and fire reticulation, electrical reticulation works, retaining wall structures, walkways, ramps & stairs, fencing and the provision of temporary prefabricated office & court room units on the site for temporary accommodation of the facilities.

The project is also subject to the required EPWP requirements as laid out and included in the Bills of Quantities.

C3.2 ORDER OF THE WORKS

It must be emphasised that the public service facility must remain fully operational for the duration of the contract and therefore the entire Magistrate Office facility needs to be decanted to a nearby vacant site, within 500m from the main site, and accommodated in temporary prefabricated units.

No work can commence on the repairs and renovations to the main office site until the decanting site is fully completed and ready for occupation of the staff. Once the offices have been decanted the contractor may proceed with the work on the main site.

Once the works is completed on the main site the staff and facilities are to be decanted back to the newly renovated offices.

The above has been measured and provided for in the tender document and should be priced accordingly.

The Contractor is to take careful note of the above and allow for the above in his programme and pricing and rates and prices must therefore include for working within this environment, up to or on existing surfaces and under conditions and circumstances not necessarily otherwise encountered, and to allow for possible alterations to the construction programme in order to meet the Clients requirements within the required timeframes.

The works will be completed in three (3) sections, namely:

- Section 1 – Decanting Site and relocating the court facilities to the decanting site – 6 Months
- Section 2 – Refurbishment/Construction of Court Buildings on main site – 15 Months
- Section 3 – Decanting back to Renovated Courts and de-establishment of decanting site – 1 Month

C3.3 BUILDINGS OCCUPIED

This is a public service facility and must remain fully operational for the duration of the contract and therefore the entire Magistrate Office facility needs to be decanted to a nearby vacant site, within 500m from the main site, and accommodated in temporary prefabricated units.

No work can commence on the repairs and renovations to the main office site until the decanting site is fully completed and ready for occupation of the staff. Once the offices have been decanted the contractor may proceed with the work on the main site.

Once the works is completed on the main site the staff and facilities are to be decanted back to the newly renovated offices.

C3.4 ACCESS

The Magistrates Courts and Offices is a Public Building and has strict controlled access and the Contractor will have to adhere to any safety and security regulations that are in place. The Contractor is liable for any routine searches upon entering and exiting the premises, security checks on staff, additional supervision of staff, Identification cards, etc., and any other security measures that need to be implemented on the site.

C3.5 STANDARD MINIMUM REQUIREMENTS

In terms of section 5(2) of the Construction Industry Development Board Act, 2000 (Act no. 38 of 2000) (the Act), the Construction Industry Development Board is empowered to establish and promote best practice standards, Standard Requirements and Guidelines which includes the following but not limited to:

C3.5.1 cidb Best Practice: Green Building Certification, No. 34158 Government Gazette, 1 April 2011

C3.5.2 cidb Standard for Developing Skills through Infrastructure Contracts, No. 36760 Government Gazette, 23 August 2013

C3.5.3 cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013

C3.5.4 cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts, No. 41237 Government Gazette, 10 November 2017

C3.5.5 cidb Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts, No. 41237 Government Gazette, 10 November 2017

C3.5.6 cidb Standard for Minimum Requirements for Engaging Contractors and Sub- Contractors on Construction Works Contracts, No. 42021 Government Gazette, 9 November 2018

C3.5.7 cidb Standard for Developing Skills through Infrastructure Contracts, No 48491 Government Gazette, 23 April 2023.

C3.6 CONTRACT PARTICIPATION GOALS AND CIDB BUILD PROGRAMME

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the respective CPGs. Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

Monthly progressive reports to be submitted to the Employer's representative indicating the percentage targets achieved which must be reconciled upon completion of the project and to form part of the final account.

The contractor shall achieve in the performance of this contract the following Contract Participation Goals (CPGs) as indicated below.

C3.6.1 Minimum Targeted Local Material Manufacturer Contract Participation Goal

The Minimum Targeted Local Building Material Manufacturers CPG is not applicable to this project.

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprise Local Material Manufacturers (SMME's) in executing this contract, irrespective whether a minimum percentage Participation Goals is applicable or not.

The Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020.

A Targeted Local Material Manufacturer is a targeted enterprise that operates or maintains a factory or establishment that produces on its premises materials or goods required by the principal contractor for the performance of the contract.

Note: Adapted from SANS 10845-7:2015, definition 2.13

Preference shall be given to the Targeted Local Material Manufacturer where feasible in **insert applicable Ward/s, Municipal District, Town, City, Province**, and provided that:

- (a) Such materials comply in all respects with the specific requirements of PW371 and SANS specifications,
- (b) The non-availability of such materials shall not adversely affect the desired progress of the specific works,
- (c) The use of such suppliers shall not constitute grounds for any claim for increased cost in respect thereof,
- (d) Materials of at least **insert applicable percentage, both in words and figures** of the total value of materials purchased excluding VAT to be sourced from within **insert applicable kilometerskm** radius of the project site,
- (e) Material of at least **insert applicable percentage, both in words and figures** of the total value of materials purchased excluding VAT to be sourced from within **insert applicable kilometerskm** radius of the project site.

Failure to achieve the minimum specified value as indicated in the CPG Bill of Quantity Section for Targeted Local Material Manufacturer participation will result in a **thirty percent (30%)** penalty of the prorated targeted value of materials not complied with unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The contractor shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.6.2 Minimum Targeted Local Building Material Suppliers Contract Participation Goal

The Minimum Targeted Local Building Material Suppliers CPG is applicable to this project.

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprise Local Material Suppliers (SMME's) in executing this contract, irrespective whether a minimum percentage Participation Goals is applicable or not.

The Minimum Targeted Local Manufacturers of Material Contract Participation Goal shall be achieved in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract..

A targeted supplier is a targeted enterprise that

- a) owns, operates or maintains a store, warehouse or other establishment in which goods are bought, kept in stock and regularly sold to wholesalers, retailers or the public in the usual course of business; and
- b) engages, as its principal business and in its own name, in the purchase and sale of goods.

Note: Adapted from SANS 10845-7:2015, definition 2.14

Preference shall be given to the local material suppliers where feasible in the province, and provided that:

- (a) Such materials comply in all respects with the specific requirements of PW371 and SANS specifications,
- (b) The none availability of such materials shall not adversely affect the desired progress of the specific works,
- (c) The use of such suppliers shall not constitute grounds for any claim for increased cost in respect thereof,
- (d) Materials of at least **insert applicable percentage, both in words and figures** of the total value of materials purchased excluding VAT to be sourced from within **insert applicable kilometerskm** of the project site,
- (e) Material of at least **insert applicable percentage, both in words and figures** of the total value of materials purchased excluding VAT to be sourced from within **insert applicable kilometerskm** of the project site.

Failure to achieve the minimum specified value as indicated in the CPG Bill of Quantity Section for Targeted Local Material Manufacturer participation will result in a **thirty percent (30%)** penalty of the prorated targeted value of materials not complied with, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.6.3 Minimum Targeted Local Labour Skills Development Contract Participation Goal

The Minimum Targeted Local Labour Skills Development CPG is not applicable to this project.

It is the requirement of the employer that the contractor enhances the use of local labour in executing this contract. This is required to be done through the use of both traditional building techniques and labour-intensive construction techniques careful and considered construction planning and implemented in the project irrespective whether a minimum percentage Participation Goal is applicable or not.

The Minimum Targeted Local Skills Development Contract Participation Goal shall be achieved in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract..

Targeted labour: individuals who:

- a) are employed by the principal contractor, sub-contractor or targeted enterprises in the

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

- performance of the contract;
- b) are defined as the target group in the targeting data; and
- c) permanently reside in the target area or who are recognized as being residents of the target area on the basis of identification and association with and recognition by the residents of the target area.

Adapted from SANS 10845-7:2015, definition 2.12

Targeting of labour by skills categories is only permissible within categories of semi-skilled and unskilled labour.

Contract participation goals for semi-skilled and unskilled labour shall be limited to on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract and in a manner that does not compromise worker health and safety. In the case of targeted labour, the certification of records shall be in accordance with SANS 10845-8.

Beneficiaries will be sourced from the **insert applicable Ward/s, Municipal District, Town, City, Province** for the full duration of the Construction Period, employed by either the principal contractor, sub-contractors or targeted enterprises. The total number of working days to complete the Works amount to **insert number of working days as determined by the Construction Period** working days. The minimum CPG participation for Targeted Local Labour Skills Development is **insert applicable percentage, both in words and figures**, expressed as a percentage of the total number of working days required to complete the Works. The contractor shall attain or exceed the CPG in the performance of the contract. Failure to achieve the minimum Targeted Local Labour Skills Development CPG will result in a payment reduction of **R5 000** (Excluding VAT), per working day which training has not been provided to the workforce in attendance, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.6.4 CIDB BUILD PROGRAMME: Minimum Targeted Enterprise Development Contract Participation Goal

The Minimum Targeted Enterprise Development Contract Participation Goal is applicable to this project.

The aim of this best practice standard for indirect targeting for enterprise development in accordance with the Standard for Indirect Targeting for Enterprise Development (published in Government Gazette 36190 of 25 February 2013), as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract. is to promote enterprise development by providing for a minimum Contract Participation Goal (CPG) of **insert percentage Min 5% and Max 30%** of the contract amount as defined in the Standard (Tender amount, excluding allowances and VAT) on selected contracts to be undertaken by joint-venture partners or to be sub-contracted to developing contractors that are also to be beneficiaries of enterprise development support from the main contractor.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

The lead partner or main contractor shall dedicate a **minimum insert percentage Min 5% and Max 30%** of the tender value at the time of award, excluding allowances and VAT, to provide developmental support to targeted subcontractor or joint venture partner applicable to contracts in Grades 7 to 9, General Building and Civil Engineering contracts. Preference will be given to General Building and Civil Enterprises.

Failing to achieve the targeted Contract Skills Development Goal will result in A) a thirty percent (30%) penalty of the value of the portion not achieved, excluding VAT, and B) the issuing of completion certificates only after the completion certificate of achieving the skills development goal,

counter-signed by the relevant individuals has been submitted, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

C3.6.4.1 Criteria

The main or lead partner of the successful bidder shall:

- (a) There must be a needs analysis for indirect targeting and development or skill standard and should be development in at least any two developmental areas namely;
 - Administrative and cost control systems
 - construction management systems and plans
 - planning, tendering and programming
 - business; technical; procurement skills
 - legal compliance
 - credit rating/history; financial loan capacity/history
 - contractual knowledge
- (b) The above needs analysis shall be mutually agreed upon between contractor and targeted enterprise
- (c) The contractor shall appoint an enterprise development coordinator to:
 - perform needs analysis on the targeted enterprise to identify developmental goals
 - develop a project specific enterprise development plan to improve the targeted enterprise/s performance in the identified developmental areas
 - provide internal mentorship support to improve the targeted enterprise/s performance
 - monitor and submit to the employer's representative a monthly enterprise development report thereby reporting on the progress of the agreed development areas with the targeted enterprise/s
 - submit a project completion report to the Employer's representative for each targeted enterprise.

C3.6.4.2 Management

The contractor shall provide a competent person/s to provide internal mentorship to the Targeted Enterprise/s in the two agreed developmental areas.

C3.6.4.3 Competence Criteria for an Enterprise Development Co-ordinator

The enterprise development co-ordinator shall have the following competencies:

- Minimum experience of 5 years in the construction industry at Managerial level as a Site Agent, Contracts Manager, Site Manager, Construction Manager, Business Development Manager or Enterprise Development Manager.
- Minimum experience of 2 years in training and development in Building or Construction; and
- National Diploma or B Degree in the Built Environment or Business Management

C3.6.4.4 Format of Communications

The contractor shall submit to the Employer's Representative:

- *Project interim reports* in the specified format (**ED105P**) detailing interim values of the CPG that was achieved together with an assessment of the enterprise development support provided should be tabled and discussed at least monthly at progress meetings between employer's representative and the contractor;
- *Project completion report* in the specified format (**ED101P**) to the Employer's Representative for acceptance within 15 days of achieving practical completion. The report shall include the value of the CPG that was certified in accordance with the contract, cidb registration numbers of each and every targeted enterprise, and the value of the subcontracted works or of the joint venture entered into; and the participation parameter
- *Enterprise development declaration* (**ED104P**).

C3.6.4.5 The Key Personal

The contractor shall appoint an Enterprise Development Co-ordinator and a competent person/s to provide internal mentorship.

C3.6.4.6 Management Meetings

The contractor shall report to the Employer's Representative on the implementation and progress of the targeted enterprise development and CPG at monthly progress site meetings.

C3.6.4.7 Forms for contract administration

The contractor shall submit to the Employer's Representative the following proformas:

- Form ED 105P Project Interim Report
- Form ED 104P Enterprise Development Declaration
- Form ED 101P Project Completion Report

C3.6.4.8 Records

The contractor shall:

- keep records of the targeted enterprise development
- keep records of the payments made to the targeted enterprises in relation to the CPG.
- ensure all the documentation required in terms of the Standard is provided with each monthly progress payment certificate and according to a prescribed format where applicable.

C3.6.4.9 Payment Certificates

The contractor shall:

- achieve the measurable CPG and providing enterprise development support to the targeted enterprise/s as per the Standard.
- submit payment certificates to the Employer Representative at intervals determined in the Contract.

C3.6.4.10 Compliance requirements

Non-compliance with the Best Practice Project Assessment Scheme

The wording of regulation 27A of the cidb regulations makes provision for the Board to enforce the cidb code of conduct in the event of clients being found to be in breach of the best practice project assessment scheme.

- Not including the requirements of the cidb standards in the conditions of tender
- Not registering the award of contract on the cidb Register of Projects (RoP)
- Not reporting practical completion on the cidb Register of Projects (RoP)

3.6.5 CIDB BUILD PROGRAMME: Minimum Targeted Contract Skills Development Goal (CSDG)

The Minimum Targeted Contract Skills Development CPG is applicable to this project.

The contractor shall achieve or exceed in the performance of the contract the Contract Skills Development Goal (CSDG) established in the Standard for Developing Skills through Infrastructure Contracts (published in Government Gazette No. 48491 of 23 April 2023 and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.

Failing to achieve the targeted Contract Skills Development Goal will result in A) a **thirty percent (30%)** penalty of the value of the portion not achieved, excluding VAT, and B) the issuing of completion certificates only after the completion certificate of achieving the skills development goal, counter-signed by the relevant individuals has been submitted, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 3 in the Standard and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.

C3.6.5.1 Methodology

The contractor shall achieve the measurable contract skills development goal by providing opportunities to learners requiring structured workplace learning using one or a combination of any of the following in relation to work directly related to the contract or order:

Method 1: structured workplace learning opportunities for learners towards the attainment of a part or a full occupational qualification;

Method 2: structured workplace learning opportunities for apprentices or other artisan learners towards the attainment of a trade qualification leading to a listed trade (GG No. 35625, 31 August 2012) subject to at least sixty percent (60%) of the artisan learners being holders of public TVET college qualifications;

Method 3: work integrated learning opportunities for University of Technology or Comprehensive University students completing their national diplomas;

Method 4: structured workplace learning opportunities for candidates towards registration in a professional category by a statutory council.

The contract skills participation goals, expressed in Rand, shall not be less than the contract amount multiplied by a percentage (%) factor given in Table 1 in the Standard for the applicable class of construction works.

Table 1: Contracting skills development goals for different classes of engineering and construction works contracts

Class of construction works as identified in terms of Regulation 25 (3) of the Construction Industry Regulations 2004		Construction skills development goal (CSDG) (%)
Designation	Description	
CE	Civil Engineering	0.25
CE and GB	Civil engineering and General Building	0.375
EE	Electrical Engineering works (buildings)	0.25
EP	Electrical Engineering works (infrastructure)	0.25
GB	General Building	0.5
ME	Mechanical Engineering works	0.25
SB	Specialist	0.25

The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 2 in the Standard and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.

Table 2: Notional Cost of Training per Headcount

Source: cidb Standard for Skills Development

Type of Training Opportunity	Provision for stipends (Unemployed learners only)	Provisions for mentorship	Provisions for additional costs*	Total costs	
				Unemployed learners	Employed learners
Method 1					
Occupational qualification	R7 000	R0	R9 000	R16 000	R9 000
Method 2					
TVET College graduates	R14 000	R0	R9 000	R23 000	N/A
Apprenticeship	R14 000	R0	R12 000	R26 000	R12 000
Method 3					
P1 and P2 learners	R24 000	R20 000	R4 500	R48 500	N/A
Method 4					
Candidates with a 3 year diploma	R37 000	R20 000	R4 500	R61 500	R20 000
Candidates with 4 year qualification	R47 000	R20 000	R4 500	R71 500	R20 000

Note: the required CPG will be recalculated based on the awarded tender amount and "Contract amount" once the beneficiaries have been appointed and actual costs are known. The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI. Should the rates increase after bid award or during construction the rates will be adjusted as a remeasurable item.

- The successful contractor may employ part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates directly or through a Skills Development Agency (SDA), (A1 - List of cidb accredited SDAs).
- The successful contractor must employ at least sixty percent (60%) of the learners from an FET / TVET college should the contractor select to have part/full occupational qualification learners and trade qualification learners contributing to the CSDG.
- The successful contractor shall employ at least **N/A** from eligible part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates in the employment of the employer.
- The successful contractor shall ensure that no single method shall contribute more than seventy five percent (75%) of the CSDG for the contract.

- (e) The successful contractor may only place thirty three percent (33%) employed employees or that of his subcontractors contributing to the CSDG.
- (f) The contractor shall employ at least sixty percent (60%) of the learners from a Public FET / TVET college should the contractor select to have trade qualification learners (Method 2) contributing to the CSDG.
- (g) One of the objectives of the project is to train **N/A** Occupational qualifications, trade qualification, work integrated learners – P1 and P2 learners, professional candidates.

C3.6.5.2 Management

- (a) The successful contractor must keep site records regarding the part/full occupational qualification learners', trade qualification learners', work integrated learners' or candidates' progress, site attendance, hours worked and other relevant information as required by the Standard.
- (b) The successful contractor shall provide the required number of appropriately qualified mentors to the maximum number of part/full occupational qualification learners, trade qualification learners, work integrated learners in the proportion as specified in the Standard.
- (c) The successful contractor shall provide a supervisor to manage the training of the part/full occupational qualification learners, trade qualification learners, work integrated learners, candidates.
- (d) The successful contractor shall submit to the employer's representative a baseline training plan in the specified format (Pro-forma A2) for the part/full occupational qualification learners, trade qualification learners, work integrated learners, candidates within 30 days of start of the contract.
- (e) The successful contractor shall submit to the employer's representative project interim report in the specified format (Pro-forma A3) on the progress of each of part/full occupational qualification learner, trade qualification learner, work integrated learner, candidate every three months.
- (f) The successful contractor shall submit to the employer's representative the names and particulars in the specified format (Pro-forma A4) of the supervisor, mentors for the part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates within 30 days of start of the contract.
- (g) The successful contractor shall keep a daily record of all the part/full occupational qualification learners, trade qualification learners, work integrated learners, candidates on site and their daily activities and shall be made available to the employer's representative on request.
- (h) The successful contractor shall submit to the employer's representative the reports on the progress and status of the part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates with the monthly invoice for the payment certificate.
- (i) The successful contractor shall have health and safety inductions for all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates
- (j) The successful contractor shall conduct entry and exit medical tests of all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates
- (k) The successful contractor shall provide personal protective equipment (PPE) to all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates at the start of their employment on site.
- (l) Based on the agreed skills methods the contractor may employ part/full Occupational Qualification Learners and /or Trade Qualification Learners and/or Work Integrated Learners and/or Candidates directly or through a Skills Development Agency (SDA), training provider or skills development facilitator (Form A1 - List of cidb accredited SDAs). The contractor shall ensure that

no more than one Method shall be applied to any individual concurrently in the calculation of the CSDG for the contract.

C3.6.6 NATIONAL YOUTH SERVICE TRAINING AND DEVELOPMENT PROGRAMME (NYS)

The National Youth Service Training and Development Programme is applicable to this project.

The programme shall be implemented in terms of the Implementation of the National Youth Service Programme under the Expanded Public Works (EPWP) and shall be priced in the CPG section of the Bills of Quantities. Monthly reports are to be submitted to the Employer's Representative.

Failure by the contractors to achieve the specified number to be trained in the NYS section of the CPG section within the Bills of quantities will result in a Payment reduction as per bill of quantities per person, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

C3.6.7 LABOUR-INTENSIVE WORKS

Labour Intensive Works is not applicable to this project.

Where labour intensive work is specified in the Bill of Qualities and specified by "LI" the contractor must price for and include in rates. Contractors are expected to use their initiative to identify additional activities that can be done labour-intensively to comply with the set minimum labour intensity target. Allowance must be made for submitting monthly reports illustrating the value of the works executed under Labour Intensive Works.

Failure by the contractor to achieve the specified value of the Labour Intensive Participation Goal as stipulated within the Bills of Quantities will result in a **thirty percent (30%)** penalty of the value of the works not done by means of labour intensive methods, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

Employer's objectives:

The employer's objectives are to deliver public infrastructure using labour-intensive methods in accordance with EPWP Guidelines.

Labour-intensive works:

Labour-intensive works shall be constructed/maintained using local workers who are temporarily employed in terms of the scope of work.

Labour-intensive competencies of supervisory and management staff:

Contractors shall only engage supervisory and management staff in labour-intensive works that have completed the skills programme including Foremen/ Supervisors at NQF level 4 "National Certificate: Supervision of Civil Engineering Construction Processes" and Site Agent/ Manager at NQF level 5 "Manage Labour-Intensive Construction Processes" or equivalent QCTO qualifications (See Appendix C) at NQF outlined in Table 1

C3.6.7.1 GENERIC LABOUR-INTENSIVE SPECIFICATION

Contractors are referred to the Guidelines for the Implementation of Labour-intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP) for the generic labour-intensive specification applicable to the contract.

This specification establishes general requirements for activities which are to be executed by hand involving the following:

- trenches having a depth of less than 1.5 metres

- stormwater drainage
- roads
- sidewalks and non-motorised transport infrastructure
- water and sanitation

Precedence

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail

Hand excavateable material

Hand excavateable material is:

a) granular materials:

- whose consistency when profiled may in terms of Table 3 be classified as very loose, loose, medium dense, or dense; or
- where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

b) cohesive materials:

- whose consistency when profiled may in terms of Table 3 be classified as very soft, soft, firm, stiff and stiff / very stiff; or
- where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

Note

- 1) A boulder is material with a particle size greater than 200mm, a cobble and gravel is material between 60 and 200mm.
- 2) A dynamic cone penetrometer is an instrument used to measure the in-situ shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60° with respect to the horizontal) into the material being used.

Table 3: Consistency of materials when profiled			
GRANULAR MATERIALS		COHESIVE MATERIALS	
CONSISTENCY	DESCRIPTION	CONSISTENCY	DESCRIPTION
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be moulded by fingers with some pressure.
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in up to 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of a geological pick; requires many blows for excavation.	Stiff	Can be indented by thumb-nail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.

Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumb-nail with difficulty; slight indentation produced by blow of a geological pick point.
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Trench excavation

All hand excavateable material in trenches having a depth of less than 1,5 metres shall be excavated by hand.

Compaction of backfilling to trenches (areas not subject to traffic)

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers;

- a) to 90% Mod AASHTO;
- b) such that in excess of 5 blows of a dynamic cone penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10mm and contains no isolated boulders, or
- c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

Excavation

All excavateable material including topsoil classified as hand excavateable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand. Any material which presents the possibility of danger or injury to workers shall not be excavated by hand.

Clearing and grubbing

Grass and bushes shall be cleared by hand.

Shaping

All shaping shall be undertaken by hand.

Loading

All loading shall be done by hand. Haulage equipment should be selected in a manner that allows loading by hand to the greatest extent possible.

Haul

Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m.

Offloading

All material, however transported, is to be off-loaded by hand, unless tipper-trucks are utilised for haulage.

Spreading

All material shall be spread by hand.

Compaction

Small areas may be compacted by hand provided that the specified compaction is achieved. Appropriate rollers should be used where higher (than can be achieved by hand) levels of compaction are required or for large areas.

Grassing

All grassing shall be undertaken by sprigging, sodding, or seeding by hand.

Stone pitching and rubble concrete masonry

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, must to be collected, loaded, off loaded and placed by hand.

Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m.

Grout shall be mixed and placed by hand.

Manufactured Elements

Elements manufactured or supplied by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. Where the mass of an element exceeds 55 kg, consideration should be given to the size of the element relative to its total mass related to the number of workers who would be needed to lift such mass

C3.7 Submission of Accrual Reports

The Contractor shall submit accrual reports to the client representative at the end of March and September each year for the duration of the Service Contract period from the date of appointment up to and including project closeout. This is to ensure that PMTE complies with the accounting framework GRAP, which requires that PMTE disclose all its accruals as at the end of each reporting date.

C3.8 Submission of Monthly Local Material Utilisation Report (Local Content)

Submission of Monthly Local Material Utilisation Report (Local Content) is applicable to this project.

The Contractor shall when applicable to this project, be responsible for record keeping, documenting and submission of monthly local material utilization report with supporting documentation to the Employer's representative within 7 working days of the beginning of the successive month, in terms of DTI&C designated industry/sector/sub-sector schedule as per the PA36 and Annexures C attached to the tender document. The final percentage achievement to be reconciled upon completion of the project and form part of the final account.

Failure by the contractor to achieve the specified percentage of local content per designated industry/sector/sub-sector as listed will result in a thirty percent thirty percent (30%) penalty of the value not achieved, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

Examples of calculating CPGs and related penalties

CPGs values are based on the Tender Amount at the time of the award. Determining the actual values is based either on the Tender Amount including allowances and Vat or the Tender Amount at the time of award excluding allowances and VAT, where Allowances include the following:

- Provisional amounts
- CPG allowances
- Nominated and/or selected subcontractors
- Contract price adjustment (Not provided for within the B of Q by NDPWI)
- Contingency amounts (Not provided for within the B of Q by NDPWI)

CPG values in the CPG Bill of Quantities Section will be recalculated based on the "Tender Amount" or the "Contract Amount" which ever applicable and the provisional amounts adjusted accordingly. Sanctions (penalties) are applicable to all CPGs where the contractor fails to achieve the minimum specified requirements, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control. No penalties will be applied should the CPG value, based on the original "Tender Amount" or the "Contract Amount", has been achieved.

1.1 Targeted Local Building Material Manufacturers CPG

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

When applicable, the CPG is expressed as a percentage of the “Contract Amount”, i.e. the Tender Amount at the time of award excluding allowances and VAT.

CPG calculation example:

“Tender Amount” = R150 Mil all inclusive of allowances and VAT
“Contract Amount” = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)
CPG to be achieved = 5% as specified in the Scope of Works (PG01.2)
CPG target value = R130 Mil x 5% = R 6,5 Mil (Value of material to be purchased from local manufacturers, excluding VAT)

Calculation of penalty:

Percentage penalty applicable = 10% as specified in the Scope of Works (PG01.2)
CPG target value = R6,5 Mil excluding VAT
CPG Achieved = R5,5 Mil (R1 Mil shortfall) excluding VAT
Penalty = R1 Mil x 10% = R100 000 excluding VAT

1.2 Targeted Local Building Material Suppliers CPG

When applicable, the CPG is expressed as a percentage of the “Contract Amount”, i.e. the Tender Amount at the time of award excluding allowances and VAT.

CPG calculation example:

“Tender Amount” = R150 Mil all inclusive of allowances and VAT
“Contract Amount” = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)
CPG to be achieved = 5% as specified in the Scope of Works (PG01.2)
CPG target value = R130 Mil x 5% = R 6,5 Mil (Value of material to be purchased from local suppliers, excluding VAT)

Calculation of penalty:

Percentage penalty applicable = 20% as specified in the Scope of Works (PG01.2)
CPG target value = R6,5 Mil excluding VAT
CPG Achieved = R5,5 Mil (R1 Mil shortfall) excluding VAT
Penalty = R1 Mil x 20% = R200 000 excluding VAT

1.3 Targeted Local Labour Skills Development CPG

When applicable, the CPG is expressed as a percentage of the total number working days required to complete the Works.

CPG calculation example:

“Tender Amount” = R150 Mil all inclusive of allowances and VAT
“Contract amount” = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)
Number of working days required to complete the Works based on the construction period = 600 days
CPG percentage participation to be achieved = 30% as specified in the Scope of Works (PG01.2)
Required number of working days training to be provided = 180 days (600 x 30%)

Calculation of penalty:

Payment reduction = R 5 000 per day for not providing training as specified in the Scope of Works (PG01.2)
CPG = 600 working days x 30% = 180 working days training to be provided
CPG Achieved = 160 days (20 days shortfall where no training was provided)
Penalty = 20 days x R5 000 payment reduction per day= R100 000 excluding VAT

1.4 Cidb BUILD Programme: Enterprise Development

When applicable, the Enterprise Development CPG expressed as a percentage of the “Contract amount” = Tender amount at the time of award excluding allowances and VAT. Failure to achieve the minimum Targeted Local Labour Skills Development CPG will result in a payment reduction of an amount specified in the Scope of Works (PG01.2) per working day where training was not provided.

The monetary value of training to be provided is stipulated in the CPG BoQ section. The number of Any reference to words “Bid” or Bidder” herein and/or in any other documentation shall be construed to have the same meaning as the words “Tender” or “Tenderer”.

beneficiaries to be trained is dependent on the “Contract Amount” as well the number of beneficiaries appointed which will generally resort under the Grade 1 and 2 cidb categories. The provisional amount will therefore be adjusted in terms of the “contract Amount”, the number of beneficiaries to be trained and the actual cost for providing the training.

Part 1: Calculation of 5% CPG example:

“Tender Amount” = R150 Mil all inclusive of allowances and VAT

“Contract Amount” = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)

CPG percentage participation to be achieved = 5% as specified in the Scope of Works (PG01.2) CPG

value = R6,5 Mil (Value of work to be subcontracted to emerging enterprises)

Calculation of penalty

Percentage penalty applicable = 30% as specified in the Scope of Works (PG01.2)

CPG Minimum 5% = R6,5 Mil

Achieved = R5,5 Mil (Only subcontracted work to the value of R5,5 Mil, i.e. R1 Mil shortfall)

Penalty = R1 Mil x 30% = R300 000 Excl. VAT

Part 2: Calculations in terms of training to be done:

The number of enterprises to be developed is subject to the contract amount and the apportionment of the work as per Example 1 below.

Number of enterprises to be trained = 6 x 1 GB subcontractors

Total cost for training = R 1 660 000

Calculation of penalty

Total number of enterprises to be trained = 6

Total number trained = 4 (2 Shortfall)

Training cost per beneficiary = R1 660 000 / 6 = R 276 666,67 per beneficiary

Penalty = R 276 666,67 x 2 x 30% = R166 000 Excl. VAT

B of Q Item	Description	Unit	Rate	Quantity	Amount (R)
5	Enterprise Development				
5.1	Enterprise Development of Targeted Enterprise or JV partners				
5.1.1	Appointment of training co-ordinator	Per Quarter	45 000	8	360 000
5.1.2	Appointment of Mentor /Training Service provider	Per Quarter	135 000	8	1 080 000
5.1.3	Needs Analysis and Enterprise Development Plan per Targeted Enterprise	No.	5 000	6	30 000
5.1.4	Monitoring and Interim reporting per targeted enterprise	Per Quarter	20 000	8	160 000
5.1.5	Project Completion report per Targeted Enterprise	No.	5 000	6	30 000
	Provisional Sum to be carried over to CPG bill of quantities				1 660 000

“Contract amount” Tender amount excl. allowances and VAT, 130 000 000

CPG Monetary value (5%) to be subcontracted to beneficiaries for training 6 500 000

No of enterprises based on the CPG value 6 Grade 1 / 2 GB/CE,ETC.

Contract period (months) 24

Note: Rates to be determined by PQS and adjusted to accepted quotation amounts

1.5 Cidb BUILD Programme: Skills Development (Principal contractor including subcontractors and consultants)

When applicable, the contract skills development participation goals, expressed in Rand, shall be no less than the “contract amount” multiplied by a percentage (%) factor for the applicable class of construction works.

The monetary value of training to be provided is stipulated in the CPG BoQ section. The number of beneficiaries to be trained is dependent on the “Contract Amount” as well the number of beneficiaries appointed which will generally resort under the Grade 1 and 2 cidb categories. The provisional amount will

therefore be adjusted in terms of the “Contract Amount”, the number of beneficiaries to be trained from which *Method* and the actual cost for providing the training.

CPG Calculation

Table 2: Contracting skills development goals for different classes of engineering and construction works contracts

Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No. 43495 of 3 July 2020 (Page 7)

Class of construction works as identified in terms of Regulation 25 (3) of the Construction Industry Regulations 2004		Construction skills development goal (CSDG) (%)
Designation	Description	
CE	Civil Engineering	0.25
CE and GB	Civil engineering and General Building	0.375
EE	Electrical Engineering works (buildings)	0.25
EP	Electrical Engineering works (infrastructure)	0.25
GB	General Building	0.5
ME	Mechanical Engineering works	0.25
SB	Specialist	0.25

“Contract amount” = Tender amount at the time of award excluding allowances and expenses, and VAT

Contractor CPG:

CPG calculation

“Contract amount” x factor from Table 3 above.

CPG calculation example:

“Tender Amount” = R150 Mil for GB, all inclusive of allowances and VAT

“Contract Amount” = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)

Factor for GB = 0,5% (as per Table 2 above)

CPG in R value = R130 Mil x 0,5% = R650 000 i.e. total notional cost of training to amount to R650 000

Calculation of penalty:

Percentage penalty applicable = 30% as specified in the Scope of Works (PG01.2)

CPG value = R650 000

Achieved = R550 000 = R100 000 Shortfall

Penalty = R100 000 x 30% = R30 000 Excl. VAT

Calculations based on “Contract Amount” after bid award and appointment of beneficiaries

Actual CPG training requirement value after award upon selecting method/s of training and appointment of beneficiaries = R676 000 (Table 4 below) and the provisional amount allowed for to be adjusted accordingly. The new monetary value of training required will then form the basis for determining penalties applicable. No penalties will be applied should the CPG value, based on the “Contract Amount” be achieved.

Table 4: Notional cost recalculation upon appointment of beneficiaries.

Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No. 43495 of 3 July 2020 (Page 10)

Skills Types	Number of learners	Notional Cost / Learner / Quarter	Notional cost / learner / year	Total Notional Cost over 12 months Contract
Method 2: Workplace learning opportunities, with unemployed TVET graduates	2	R23 000	R92 000	R184 000
Method 3: Candidacy for an unemployed learner with a 3-year qualification	2	R61 500	R246 000	R492 000
Total	4			R676 000

Note: the required CPG will be recalculated based on the awarded Tender amount and “Contract Amount” once the beneficiaries have been appointed and actual costs are known

Note: The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI as published by Stats SA. The rates will be adjusted as an adjustment to the provisional amounts should the rates increase after bid award or during the construction period

1.6 National Youth Service Programme (NYS) CPG

When applicable, a separate NYS Bill of Quantities will be included in the tender documentation will indicate the number of beneficiaries to be trained.

Calculation of penalty:

Payment reduction per person not trained as stipulated in the NYS Bill of Quantities = R 2 500 per person.

Total number of NYS Beneficiaries as stipulated in the NYS Bill of Quantities = 25

Total Number of NYS beneficiaries trained = 20 (shortfall of 5 beneficiaries)

Penalty = 5 x R2 500 = R12 500 Excl. VAT

1.7 Labour Intensive Works CPG

When applicable, the work to be done by way of Labour intensive methods are specified in the Bills of Quantities with a "LI".

CPG calculation example:

"Tender Amount" = R150 Mil all inclusive of allowances and VAT

"Contract Amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)

CPG value = R10 Mil (Total value of labour-intensive works specified in the Bills of Quantities)

Calculation of penalty:

CPG value = R10 Mil

Percentage penalty applicable = 30% as specified in the Scope of Works (PG01.2)

CPG Achieved = 9 Mil (R1 Mil shortfall)

Penalty = R1 Mil x 30% = R300 000 Excl. VAT

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

PART C3.1 HIV/AIDS SPECIFICATION AND SCHEDULES

HIV/AIDS SPECIFICATION

HIV/AIDS REQUIREMENTS

1. SCOPE

This specification contains all requirements applicable to the contractor for creating HIV/AIDS awareness amongst all the Workers involved in this project for the duration of the construction period, through the following strategies:

- Raising awareness about HIV/AIDS through education and information on the nature of the disease, how its transmitted, safe sexual behaviour, attitudes towards people affected and people living with HIV/AIDS, how to live a healthy lifestyle with HIV/AIDS, the importance of voluntary testing and counselling, the diagnosis and treatment of Sexually Transmitted Infections and the closest health Service Providers
- Informing Workers of their rights with regard to HIV/AIDS in the workplace
- Providing Workers with access to condoms and other awareness material that will enable them to make informed decisions about sexual practices

2. DEFINITIONS AND ABBREVIATIONS

2.1 Definitions

Service Provider: The natural or juristic person recognized and approved by the Department of Housing as a specialist in conducting HIV/AIDS awareness programmes

Service Provider Workshop Plan: A plan outlining the content, process and contract data of the training and education workshops, present by a Service Provider which has been approved by the Representative/Agent

Worker: Person in the employ of the Contractor or under the direction or supervision of the Contractor or any of his Sub-contractor, who is on site for a minimum period of 30 days in all

2.2 Abbreviation

HIV	:	Human Immunodeficiency Virus
AIDS	:	Acquired Immune Deficiency Syndrome
STI	:	Sexually Transmitted Infection

3. BASIC METHOD REQUIREMENT

The Contractor shall, through a Service Provider, conduct onsite workshops with the Workers

The Service Provider shall develop and compile a Service Provider Workshop Plan to be presented at the workshops and which will be best suited for this project to achieve the specified objectives with the regard to HIV/AIDS awareness.

The Service Provider Workshop Plan shall be based on the following information provided by the Contractor:

- Number of Workers and Sub-contractors on site
- When new Workers or Sub-contractors will join the construction project
- Duration of Workers and Sub-contractors on site
- How the maximum number of Workers can be targeted with workshops

- How the Contractor prefers workshops to be contract data, e.g. three hourly sessions per Worker, or one 2.5 hour workshop per Worker
- Profile of Workers, including educational level, age and gender (if available)
- Preferred time of day or month to conduct workshops
- A Gantt chart reflecting the construction programme, for scheduling of workshops
- Suitable venues for workshops

The Contractor shall submit the Service Provider Workshop Plan for approval within 21 days after the tender acceptance date. After approval by the Representative/Agent, the Contractor shall make available a suitable venue that will be conducive to education and training

The Service Provider Workshop Plan shall address, but will not be limited to the following:

- 3.1 The nature of the disease;
- 3.2 How it is transmitted;
- 3.3 Safe sexual behaviour;
- 3.4 Post exposure services such as voluntary counselling and testing (VCT) and nutritional plans for people living with HIV/AIDS;
- 3.5 Attitudes towards other people with HIV/AIDS;
- 3.6 Rights of the Worker in the workplace;
- 3.7 How the Awareness Champion will be equipped prior to commencement of the HIV/AIDS awareness programme with basic HIV/AIDS information and the necessary skills to handle questions regarding the HIV/AIDS awareness programme on site sensitively and confidentially;
- 3.8 How the Service Provider will support the Awareness Champion;
- 3.9 Location and contact numbers of the closest clinics, VCT facilities, counselling services and referral systems;
- 3.10 How the workshop will be presented, including frequency and duration;
- 3.11 How the workshop will fit in with the construction programme;
- 3.12 How the Service Provider will assess the knowledge and attitude levels of attendees to structure workshops accordingly;
- 3.13 How the video will be used;
- 3.14 How the Service Provider will elicit maximum participation from the Workers;
- 3.15 A questions and answers slot (interactive session)

The Service Provider Workshop Plan shall encompass the Specific Learning Outcomes (SLO) as stipulated

4. HIV/AIDS AWARENESS EDUCATION AND TRAINING

4.1 Workshops

The Contractor shall ensure that all Workers attend the workshop

The workshops shall adequately deal with all the aspects contained in the Service Provider Workshop Plan. A video of HIV/AIDS in the construction industry, which can be obtained from all Regional Offices of the Department of Housing, is to be screened to Workers at workshops. In order to enhance the learning experience, groups of not exceeding 25 people shall attend the interactive sessions of the workshops

4.2 Recommended practice

4.2.1 Workshop Contract data

Presenting information contained in the Service Provider Workshop Plan can be divided in as many workshops sessions as deemed practicable by the Contractor, provided that all Workers are exposed to all aspects of the workshops as outlined in the Service Provider Workshop Plan

Breaking down the content of information to be presented to the Workers into more than one workshop session however, has the added advantage that messages are reinforced over time while providing opportunity between workshop sessions for Workers to reflect and test information. Workers will also have an opportunity to ask questions at a following session

4.2.2 Service Providers

A database of recommended Service Providers is available from all Regional Offices of the Department of Housing

4.2.3 HIV/AIDS Specific Learning Outcomes and Assessment Criteria

Workers shall be exposed to workshops for a minimum duration of two-and –a-half hours. In order to set a minimum standard requirement, the following specific learning outcomes and assessment criteria shall be met

4.2.3.1 UNIT 1: The nature of HIV/AIDS

After studying and understanding this unit, the Worker will be able to differentiate between HIV and AIDS and comprehend whether or not it is curable. The Worker will also be able to explain how HI virus operates once a person is infected and identify the symptoms associated with the progression of HIV/AIDS

Assessment Criteria:

1. Define and describe HIV and AIDS
2. List and describe the progression of HIV/AIDS

4.2.3.2 UNIT 2: Transmission of the HI virus

After studying and understanding this unit, the Worker will be able to identify bodily fluids that carry the HI virus. The Worker will be able to recognize how HIV/AIDS is transmitted and how it is not transmitted

Assessment Criteria:

1. Record in what bodily fluids the HI virus can be found
2. Describe how HIV/AIDS can be transmitted
3. Demonstrate the ability to distinguish between how HIV/AIDS is transmitted and misconceptions around transmittance of HIV/AIDS

4.2.3.3 UNIT 3: HIV/AIDS preventative measures

After studying and understanding this unit, the Worker will comprehend how to act in a way that would minimize the risk if HIV/AIDS infection and to use measures to prevent the HI virus from entering the bloodstream

Assessment Criteria:

1. Report on how to minimize the risk of HIV/AIDS infection
2. Report on precautions that can be taken to prevent HIV/AIDS infection
3. Explain or demonstrate how to use a male and female condom
4. List the factors that could jeopardize the safety of condoms provided against HIV/AIDS transmission

4.2.3.4 UNIT 4: Voluntary HIV/AIDS counselling and testing

After studying and understanding this unit, the Worker will be able to recognize methods of testing for HIV/AIDS infection. The Worker will be able to understand the purpose of voluntary HIV/AIDS testing and pre- and post-test counselling

Assessment Criteria:

1. Describe methods of testing for HIV/AIDS infection
2. Report on why voluntary testing is important
3. Report on why pre- and post-test counselling is important

4.2.3.5 UNIT 5: Living with HIV/AIDS

After studying and understanding this unit, the Worker will be able to recognize the importance of caring for people living with HIV/AIDS and be able to manage HIV/AIDS

Assessment Criteria:

1. List and describe ways to manage HIV/AIDS
2. Describe nutritional needs of people living with HIV/AIDS
3. Describe ways to embrace a healthy lifestyle as a person living with HIV/AIDS
4. Explain the need for counselling and support to people living with HIV/AIDS

4.2.3.6 UNIT 6: Treatment options for people with HIV/AIDS

After studying and understanding this unit, the Worker will be familiar with various treatments available to HIV/AIDS infected or potentially HIV/AIDS infected people

Assessment Criteria:

1. Discuss anti-retroviral therapy
2. List methods of treatment to prevent HIV/AIDS transmission from mother-to-child
3. Describe the need for treatment of opportunistic diseases for people living with HIV/AIDS
4. Describe post exposure prophylactics

4.2.3.7 UNIT 7: The rights and responsibility of Workers in the workplace with regard to HIV/AIDS

After studying and understanding this unit, the Worker will be able to identify the rights and responsibilities of the Worker living with HIV/AIDS in the workplace. The Worker will recognize the importance of accepting colleagues living with HIV/AIDS and treating them in a non-discriminative way

Assessment Criteria

1. Discuss the rights of a person living with HIV/AIDS in the workplace
2. Discuss the responsibilities of a person living with HIV/AIDS in the workplace
3. Report on why acceptance and non-discrimination of colleagues living with HIV/AIDS is important

4.3 Displaying of plastic laminated posters and distribution of information booklets

The Contractor shall obtain a set of four laminated posters conveying different key messages and information booklets, which are available from all Regional Offices of the Department of Housing

The above-mentioned posters and information booklets have been prepared to raise awareness and share information about HIV/AIDS and STI's

Posters or display stands shall be displayed on site as soon as possible , but not later than 14 days after the date of site handover

Posters shall be displayed in areas highly trafficked by Workers, including toilets, rest areas, the site office and compounds

The posters on display must always be intact, clear and readable

Information booklets must be distributed to all Workers as soon as possible, but not later than 14 days after site handover, or as soon as the Worker joins the site

5. PROVIDING WORKERS WITH ACCESS TO CONDOMS

The contractor shall provide and maintain condom dispensers and make both male and female condoms, complying with the requirements of SABS ISO 4074, available at all times to all Workers at readily accessible points on site, for the duration of the contract. The Contractor may obtain condom dispensers from the Department of Health and condoms may be obtained from the Local Clinic or the Department of Health

At least one male and one female condom dispenser and a sufficient supply of condoms, all to the approval of the Representative /Agent, shall be made available on site within 14 days of site hand over. Contractors should note that arrangements to obtain condoms from the Department of Health Clinics prior to site hand over may be necessary, to ensure that condoms are available within 14 days of site handover

Condoms shall be made available in areas highly trafficked by Workers, including toilets, the site office and compounds

6. ENSURING ACCESS TO HIV/AIDS TESTING AND COUNSELLING FACILITIES AND TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS (STI)

The Contractor shall provide Workers with the names of the closest Service Providers that provide HIV/AIDS testing and counselling and Clinics providing Sexually Transmitted Infection (STI) diagnosis and treatment. Information on these Service Providers and Clinics must be displayed on a poster of a size not smaller than A1 in an area highly trafficked by Workers

7 APPOINTMENT OF AN HIV/AIDS AWARENESS CHAMPION

Within 14 days of site handover the Contractor shall appoint an Awareness Champion from amongst the Workers, who speaks, reads and writes English, who speaks and understands all the local languages spoken by the Workers and who shall be on site during all stages of the construction period. The Contractor shall

ensure that the Awareness Champion has been trained by the Service Provider on basic HIV/AIDS information, the support services available and the necessary skills to handle questions regarding the HIV/AIDS programme in a sensitive and confidential manner

The Awareness Champion shall be responsible for:

- 7.1 Liaising with the Service Provider on organizing awareness workshops;
- 7.2 Filling condom dispensers and monitoring condom distribution;
- 7.3 Handing out information booklets;
- 7.4 Placing and maintaining poster

8. MONITORING

The Contractor shall grant to the Representative/Agent reasonable access to the construction site, in order to establish that the Contractor complies with his obligations regarding HIV/AIDS awareness under this contract

The Contractor must report problems experienced in implementing the HIV/AIDS requirements to the Representative/Agent

The attached SITE CHECKLIST (CONTRACT DATA A) shall be completed and submitted at every construction progress inspection to the Representative/Agent

The attached SERVICE PROVIDER REPORT (CONTRACT DATA B) shall be completed and submitted on a monthly basis to the Department's Project Manager, through the Representative/Agent

The attached CONTRACTOR HIV/AIDS PROGRAMME REPORT (CONTRACT DATA C), a close out programme report, shall be completed by the Contractor at the end of the contract.

SCHEDULE A

HIV/AIDS PROGRAMME : SITE CHECKLIST

When did construction commence _____

Name of Departmental Project Manager _____

Please refer to HIV/AIDS Programme activities during the reporting period

Tick the block if Contractor satisfactorily complied with specifications																												
DATE	PI				PI				PI				PI				PI				PI							
	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M
Programme implemented within 14 days of site handover																												
Awareness champion on site																												
HIV/AIDS awareness service provider report																												
Male condom dispenser																												
Sufficient male condoms available																												
Male condom dispenser in a highly trafficked area																												
Female condom dispenser																												
Sufficient female condoms available																												
Female condom dispenser in a highly trafficked area																												
All four types of posters displayed																												
Posters in a good condition																												
Posters in a highly trafficked area																												
Posters displayed on local support services: clinic & VCT centre																												
Support service poster/s in highly trafficked area																												
Support service poster/s in a good condition																												

<i>Please indicate the applicable number for the reporting period</i>							
Workers on payroll (at PI)							
Sub-Contractors who will be on site for longer than 30 days (at PI)							
Workshop attendees							
Number of workshops held							
Scheduled workshops according to approved workshop plan							
Booklets distributed							
Male condoms distributed							
Female condoms distributed							

Representative/Agent							

Contractor							

Date of progress inspection (dd/mm/yy) _____

Reporting period: (dd/mm/yy)_____ to (dd/mm/yy) _____

Deviations from HIV/AIDS awareness programme plan:

Corrective actions

Representative/Agent

Departmental Project Manager

Date

Date

SCHEDULE B

HIV/AIDS AWARENESS PROGRAMME: SERVICE PROVIDER REPORT

Reporting period: (dd/mm/yy)_____ to (dd/mm/yy) _____

Number of workshops conducted in reporting period _____

Number of scheduled workshops according to approved workshop plan _____

Deviations from workshop plan:

State reasons for deviating from workshop plan:

Corrective actions:

Service Provider

Contractor

Date

Date

HIV/AIDS AWARENESS PROGRAMME : WORKSHOP CONTENT ADDRESSED

Fill in the applicable information with regard to each workshop conducted																												
DATE	W/S				W/S				W/S				W/S				W/S				W/S				W/S			
	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M	D	D	M	M
Content of workshop: (Mark the content included)																												
SLO1																												
SLO2																												
SLO3																												
SLO4																												
SLO5																												
SLO6																												
SLO7																												
HIV/AIDS in construction video																												
Indicate the duration of the workshop in hours																												
Total number of Workers																												
Indicate workshop venue																												

HIV/AIDS AWARENESS PROGRAMME: ATTENDANCE REGISTER

[illegible]

SCHEDULE C**CONTRACTOR HIV/AIDS PROGRAMME REPORT**

Project name _____

Project Location _____

Contract value of project (R) _____

Department of Public Works Project Manager _____

HIV/AIDS Programme duration: (dd/mm/yy) _____ to (dd/mm/yy) _____

AWARENESS MATERIALDescribe location of posters displayed during the programme _____
_____Comments on posters _____

Indicate total number of booklets distributed _____

Comments on booklets _____

_____**CONDOMS**

Indicate total number of male condoms distributed _____

Indicate total number of female condoms distributed _____

Describe where male condom dispenser was placed _____

Describe where female condom dispenser was placed _____

HIV/AIDS WORKSHOPS

Indicate the total number of HIV/AIDS workshops conducted _____

Indicate the duration of workshops _____

Indicate the total number of Workers that participated in the HIV/AIDS workshops _____

Indicate the total number of Workers that were exposed to the video on HIV/AIDS in the Construction Industry _____
_____Comments on HIV/AIDS workshops on site _____

GENERAL

Briefly describe programme activities and satisfaction with outcome _____

Additional comments, suggestions or needs with regard to the HIV/AIDS awareness programmes on site

Please indicate if your company has a formal HIV/AIDS policy focussing on HIV/AIDS awareness raising and care and support of HIV/AIDS Workers

Yes	No	Currently developing one
-----	----	--------------------------

Please indicate if, to your knowledge, you have lost any workers during the duration of the project to HIV/AIDS related sicknesses. One or more of the following might indicate an HIV/AIDS related death:

Excessive weight loss
Reactive TB
Hair loss
Severe tiredness

Coughing or chest pain
Pain when swallowing
Persistent fever
Diarrhoea

Vomiting
Meningitis
Memory loss
Pneumonia

Number of HIV/AIDS-related deaths _____

Contractor







Date

Departmental Project Manager

Date

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

PART C3.2 OCCUPATIONAL HEALTH & SAFETY SPECIFICATION

<div><div>Province of the EASTERN CAPE PUBLIC WORKS & INFRASTRUCTURE</div></div> <div></div>	DOCUMENT INFORMATION		
	Document Type		Originator
	Health and Safety Specification in terms of the requirements of Construction Regulation 5(1)(b)		Siyabulela Mabi CHSA/148/2024
	Activity		Project Name
HSE for Renovations and Refurbishment		Idutywa Magistrate Court: Planned Maintenance, Repairs and Refurbishment	
DOCUMENT CHANGE RECORD			
Rev	Date	Section(s) change(d)	Description of Revision
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1 Introduction



Purpose and scope

This document describes the compliance requirements to which the contractor must adhere concerning the work scope. Compliance with this specification does not absolve the Principal Contractor from complying with any other minimum legal requirement and the Principal Contractor remains responsible for the health and safety of his employees, those of his mandatories as well as any persons on adjacent properties, who could be affected by the construction works.

The work to be carried out entails repairs, renovations, and maintenance of the existing court buildings and new buildings to be erected in Idutywa Magistrate Court. The work to be carried out is inclusive but not limited to the following:

- Removal of floor finishes and replacement with new floor finishes
- Removal of plaster and replacement with new plaster to internal and external walls
- Removal of paintwork to take new paintwork to internal and external walls
- Removal of roof sheeting and replacement with new roof covering
- Removal of rafters and timber and replacement with new
- Replacement of gutters and downpipes
- Repairs and upgrade of storm-water drainage
- Removal of ceilings and replacement with new ceilings
- Replacement of doors
- Replacement of wooden windows with aluminium windows
- Replacement of wooden frame with aluminium window frames
- Replacement of roller shutter doors
- Repairs to fencing and replacement of palisade fence
- Repairs or replacement of pavement
- Provision of prefabricated structure for decanting purpose

- Remove existing windows at the cash hall and replace with bulletproof windows
- Remove existing welded mesh and install invisible fencing (including partitioning pathway from cells to courtroom)
- Install overhead wire mesh at the holding cells courtyard



- Supply and install burglar bars
 - Supply and install metal detector with and including all associated electrical works and backup power supply
 - Supply and install X-ray inspection system complete with an electronic rubber conveyor belt with and including an electrical supply
 - Reconfigure two offices for magistrates including alterations to allow for ablutions and installation of burglar bars to demarcate the area
 - Reconfigure the courtyard to a waiting area, including the installation of roof trusses and sheets
 - Reconfigure existing office to the registry or file room including filing cabinets
 - Reconfigure the existing office to a server room
-
- Supply and install backup elevated tank including tank stand
 - Supply and install a three-phase hybrid inverter with and including solar panels
 - Supply and install air-conditioners
 - Supply and install backup air conditioners in courtrooms.

This document defines the minimum management requirement that is to be implemented by the contractor for the management of health and safety on the project. The aim of this document is to present the safety aspects that need to be controlled and managed on the project. It is developed to ensure that the principal contractor entering a contract with The Department of Public Works achieves and maintains an acceptable level of Occupational Health, Safety and Environmental performance. The Contractor must consider all information in this specification and ensure that in tendering for this job, adequate resource and competence provisions are made to deal with the matters detailed herein so that all relevant contents are dealt with to ensure compliance with legislation and the ethical concerns for the safeguarding of employees, contractors other persons affected by the construction activities. All the costs related to the compliance with Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 as contained in this Health and Safety Specification, are to be taken into consideration during the tendering stage. The Health and Safety Specification will be fully implemented during the construction of the works and any construction activity that the Client has control over.



2 Reference documents

- Occupational Health and Safety Act No. 85 of 1993
- Compensation for Occupational Injury and Diseases Act
- Client Health and Safety specification
- Construction Regulations 2014

3 Definitions

The following definitions will apply to the safety management plan, acronyms given hereunder shall apply:

- Construction/building work (as defined by the Occupational Health and Safety Act:

Construction Regulations 2014) Means any work in connection with –

- a) The construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or
- b) The construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, pilling, or any similar civil engineering structure or type of work.

- Hazard identification and risk assessment and risk control (HRA)

Means a documented plan, which identifies hazards, assesses the risks and details the control measures and safe working procedures, which are to be used to mitigate and control the occurrence of hazards and risks during construction or operation phases.

- Site

Means the area in the possession of the contractor for the construction of the works. Where there is no demarcated boundary it will include all adjacent areas, which are reasonably required for the activities of the contractor and approved for such use by the engineer and/or client.

- The Act

Means, unless the context indicates otherwise, the Occupational Health and Safety Act No. 85 of 1993) and the Regulations promulgated there under.

- Hazard

Means a source of or exposure to danger (a source which may cause injury or damage to persons, or property)

- Risk

Means the probability or likelihood that a hazard can result in injury or damage.



- Contractor's responsible person(s)

Means any person appointed in writing by the contractor to supervise construction or building work. The appointment shall be as required by the OHSA which shall stipulate health and safety responsibilities, area of responsibility and the proposed duration of the project.

- Hazardous chemical substance (HCS)

Means any toxic, harmful, corrosive, irritant or asphyxiant substance, or a mixture or substances for which an occupational exposure limit is prescribed, or an occupational exposure limit is not prescribed, but which creates a hazard to health.

- Construction plant (TEM)

Encompasses all types of plant including but not limiting to, cranes, piling frames, boring machines, excavators, dewatering equipment and road vehicles with or without lifting equipment.

Contractor

Means "subcontractor".

Health and safety program

Encompasses the contractor safety planning spreadsheet.

- Health and safety plan (HSP)

The content of this document will be made available on site for inspection by an inspector, technical officer, agent, subcontractor, employee, registered employee

organisation, health and safety representative, or member of the health and safety committee.

- Health and safety file

Describes the safety file holding all records on health and safety for the project, which shall be available at all times for evaluation, and a copy of which will be forwarded to the client upon completion of the project.

4 Responsibilities

4.1 Notification of intention to commence construction work

It is essential for the contractor to notify the Provincial Director of the Department of Labour, immediately upon receipt of the letter of acceptance of project commencement in accordance with the following requirements:

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

A copy of the notification letter to the Provincial Director must be forwarded to the client for the client's records.

4.2 Permits

A client who intends to have construction work carried out, must at least 30 days before that work is to be carried out apply to the provincial director in writing for a construction work permit to perform construction work where the construction works;

- i) Exceeds 365 days and;
- ii) Involves more than 3600 person days of construction work; or
- (iii) The tender value limit is grade 7, 8 or 9 of the Construction Industry Development Board.

The contractor shall ensure that access to site works is restricted to construction personnel. All attempts must be made to restrict spectator access. Access to the site shall be by the authorisation and records of access kept.

4.3 Assignment of contractor's responsible persons to supervise health and safety on site.

The contractor shall appoint in writing a construction manager and a construction supervisor as a minimum prior to commencing work on site and copies of all the appointment letters of the responsible persons shall be forwarded to the client prior to commencement of work on site.

4.4 Safety Officer Appointment

The appointment of a full-time, registered and in good-standing with SACPCMP safety officer is compulsory for this project.

The contractor shall appoint a competent person in writing at commencement of the project to control the risk assessment process on site.

4.5 Competency for contractor's responsible persons

The construction manager must have the legal liability training, hazard identification and risk assessment training as well as the basic health and safety construction supervisory training. If the construction manager does not have the mentioned training, the contractor must ensure that at least within three months of the project, the construction manager is trained and provides proof of training.

The construction supervisor must be in possession of the HIRA and basic construction supervisory training.

First Aider to be in possession of level two first aid training.

Safety officer to be registered and in good standing with SACPCMP and have a minimum of 3 years working in construction projects, specifically in building works.

4.6 Health and Safety Plan

The contractor shall provide to the client, a health and safety plan in accordance with this specification which plan shall be discussed and finally approved by the client or his representative for implementation.

4.7 Health and Safety Representatives

The contractor shall ensure at least one (1) health and safety representative be nominated, elected and trained to carry out his/her functions in his/her area of responsibility. This shall also be required in areas where less than fifty (50) employees are engaged in activity. The contractor shall ensure employees elected shall be designated in writing for a specific area and period of time.

The designated persons shall be required to conduct monthly inspections within their area of responsibility, the records must be kept for client auditing purposes and deviations recorded are reported to the responsible supervisor within the designated person's area so that appropriate action can be taken.

The designated person/s shall be permitted to participate in the joint health and safety committee meetings.

5 Objectives and targets

The contractor shall include in the health and safety plan the objectives and targets for the project.

5.1 Planning and Procedures

The contractor shall define in the health and safety plan, the method of planning to be used on the project and the procedures to be adhered to.

6 Implementation of the Occupational Health and Safety specification

The contractor shall ensure that the client health and safety specification is implemented on the project through the contractors' health and safety plan which must be submitted to the client for approval prior to work commencing on site.

7 Application of the health and safety specification

7.1 Compensation of Occupational Injuries and Diseases Act No. 130 of 1993 (COIDA)

The contractor shall ensure a letter of good standing will be provided to the client prior to work commencing on site for reference purposes as proof of good standing. The



contractor shall ensure all other contractors appointed also comply with the above requirements defined in the COIDA.

In case of an injury or work-related disease incident, the employer shall ensure that the employee is taken to the nearest private hospital for treatment and all medical records by the doctor obtained. This shall include the first, progress and final medical report by the doctor.

Contractor shall ensure that all employees have medical surveillance records in the of annexure 3 completed by an occupational doctor prior to them being involved in any construction activity.

7.2 Occupational health and safety policy

The contractor's health and safety policies are to be attached to the health and safety plan for review by the client.

7.3 Hazard Identification Risk Assessment (HIRA)

The contractor shall ensure that hazard identification risk assessment forms the basis of all work to be conducted on site, and a preliminary task risk assessment is submitted for approval to the client prior to work commencing on site.

All risk assessments conducted on site must be forwarded to the client for approval. The contractor must ensure that training forms part of the HIRA process and proof of training attendance is made available to the client upon request.

The contractor shall ensure a HIRA team be established comprising members as follows, but not limited to:

- Risk Assessor
- Construction Manager
- Person with skill/knowledge of the task to be performed.

Method statements and safe work procedures must form part of the HIRA process and must be conducted in conjunction with the HIRA process described above.

7.4 Health and Safety Committee

The contractor shall convene a health and safety committee meeting after every three months. All members required to be in attendance shall be notified of such meeting by means of a formal agenda which must be made available to the client upon request. The



contractor shall ensure an attendance register and minutes are kept for auditing purposes by the client. A copy of all minutes must be forwarded to the client monthly.

7.5 Health and Safety Training

Training of personnel is a legal requirement and a necessity and is required of the contractor to provide to the client a training matrix which must be included in the health and safety plan to be submitted prior to work commencing on site. The contractor must conduct the training needs analysis and send the employees requiring training for training before they are engaged in specific tasks requiring special training.

Training should include the following but is not limited to:

7.5.1 Induction training

Induction training must be attended by all employees and contractors. The contractor must keep records of all attendees to the induction and provide records of the same during the client site audits.

7.6 Awareness training (Toolbox Talks)

Weekly awareness training must be conducted and records of these must be made available to the client upon request.

7.6.1 Competency

Training identified through the HIRA process and conducted through this process shall be kept on file as proof of competency and training and must be made available to the client upon request. (This shall include operator competency training and assessments.)

7.6.2 First aid and health & safety representative training

Contractors shall provide proof of the competency of all health and safety representatives elected and designated, including first aiders to the client, which must be available on site for auditing purposes.

7.7 General record keeping

The contractor must ensure that all the health and safety records, required by both the Occupational Health and Safety Act No. 85 of 1993 and Regulations are kept for reference purposes and auditing by the client.

Further to the requirements set out above, the contractor must also maintain records that may be defined through the risk assessment process, for auditing purposes.

In accordance with the requirements set out in the Construction Regulations 2014 and the requirement set out in the client specification the contractor must ensure a copy of all



health and safety records generated during the course of construction, are handed over to the client upon completion of construction.

7.7.1 Statistics

The contractor must ensure injury and incident records (near hits, first aid, medical cases, disabling lost time incidents), training etc. referred to above are kept on site and submitted monthly to the client. All documents shall be made available to the client for inspection including the Department of Labour's Inspectors as required by the Occupational Health and Safety Act No. 85 of 1993.

The statistics formula as listed below shall be adhered to during construction:

DIFR (Disabling Injury Frequency Rate)	$\frac{\text{DI's} \times 1\,000\,000}{\text{Man hours}}$
--	---

DISR (Disabling Injury Severity Rate)	$\frac{\text{Days Lost} \times 1\,000}{\text{Man hours}}$
---------------------------------------	---

7.7.2 General inspection, monitoring and reporting

The contractor shall comply with the requirements set out by the client. The contractor must provide to the client with a safety management action plan upon which the dates of inspections training and awareness will be entered, conducted and monitored.

The contractor shall keep all records of inspections and investigations undertaken during the contract for the specified legal period as defined in the OHSA and Regulations.

7.7.3 Internal audits

Internal audits shall be conducted a minimum of once per month by the client or client's appointed Construction Health and Safety Agent

The results shall be tabled and discussed at the joint health and safety committee meetings.

The contractor must also conduct its own internal audits, the results of which must be submitted to the client monthly.

7.8 Incentives

Incentive schemes are left to the discretion of the contractor.

7.9 Penalties

Non-compliance with the client safety specifications will result in work stoppages and possible expulsion from the site until the problem has been remedied. Costs will be borne by the contractor.

7.10 Emergency procedures

The contractor must make available to the client a detailed emergency plan to tie into the evacuation plan already in place on the clients' premises.

7.11 First aid box and contents

The contractor must ensure that all working areas are adequately provided with first aid attendants whether there are fifty (50) employees or less engaged on the contract. The first aid attendant must be trained in accordance with the requirements set out in the OHSA with a recognised and accredited service provider as defined above.

The contractor must ensure that the first aid box is always adequate and is accessible to all.

The client shall inspect the contents of the first aid box and dressing record from time to time.

7.12 Accident and incident reporting and investigation

Should an accident or incident occur, the contractor shall conduct an investigation into the incident. The contractor must ensure that a competent person be appointed in writing to conduct the said investigation. The procedure to be followed must be in accordance with the OHSA requirement on Annexure 1 – recording and investigation of incident form. The contractor shall ensure that the results of all investigations are communicated to the employees engaged through incident recall and prescribed meetings. The contractor must ensure that the investigations are kept for record purposes in accordance with the prescribed requirements set out in the OHSA.

Should there be an incident, the client must be notified within 24-hours of the occurrence.

The client reserves the right to participate in all investigations into accidents or incidents.

7.13 Hazards and Potentially Hazardous Situations

The contractor shall ensure that all other contractors are warned of hazardous or potentially hazardous situations, which may prevent them from effectively performing their duties, which includes the placement of adequate warning signs.

7.14 Personal Protective Equipment and Clothing

The contractor shall comply with OHSA requirements to provide PPE.

The contractor shall through the HIRA process identify the specific PPE needs per activity and then issue the PPE accordingly. (Reference to the OHSA General Safety Regulation 2 – Employer to provide Personal Protective Equipment).

Should PPE be lost or stolen, then the employee will be issued with a new set of PPE by the contractor.

The contractor must ensure adequate training in the use of PPE is provided to all employees, and proof of training shall be kept at the office for auditing purposes.

Overalls and hardhats shall be identifiable. (Principal contractor different from the other contractor's).

PPE must be provided to visitors as well.

7.15 Safety signage

The contractor must assess the health and safety signage requirements in conjunction with the HIRA's conducted and place the signage at strategic positions on the site works accordingly. The contractor shall also maintain the signage to ensure its effectiveness at all times and under all conditions. Signage, which cannot be repaired, must be replaced.

7.16 Contractors and suppliers

The contractor shall enter into an Agreement with Mandatary in terms of Section 37(2) of the Occupational Health and Safety Act No. 85 of 1993, with the client and all other contractors appointed by the principal contractor.

The contractor shall also be required to appoint its contractors in accordance with Construction Regulation 7(3).

The principal contractor must ensure all other contractors are issued with the client safety specification where reasonably practicable. The principal contractor shall assist and ensure

contractors engaged comply with all of these requirements and adhere to the requirements set out in the OHSA.

Contractors will be stopped from working in the event of unsafe conditions and activities being observed.

8 Health and safety in practice

8.1 Excavations

The contractor shall ensure that all activities involving excavations, shoring, dewatering or drainage, a safe working procedure is submitted to the project engineer for approval prior to work commencing. Excavation work exceeding the specified depth as stipulated in the OHSA regulations, must comply with the following requirements:

- The excavations are inspected before the shift starts, after heavy rain (inclement weather) and after any major condition which may affect the excavations stability and the findings are to be recorded and kept.
- All excavations regardless of the depth shall be adequately barricaded to prevent persons falling into the excavation.
- The safe working procedure shall be communicated to all employees who may be affected by the work.
- The safe working procedures shall be enforced and maintained by the appointed excavation supervisor at all times.
- For high-risk activities, all personnel working in the excavation shall be attached by means of a lifeline.
- Material excavated shall be removed from the point of excavation and
- Ensure stability of adjoining structures.

The contractor must ensure that a competent person be appointed in writing to control all excavating activities during construction.

8.2 Demolition

The contractor must appoint a competent person in writing to supervise and control all demolition work on site.

The contractor must ensure that prior to any demolition work being carried out, and in order also to ascertain the method of demolition to be used, a detailed structural

engineering survey of the structure to be demolished is carried out by a competent person and that a method statement on the procedure to be followed in demolishing the structure is developed and provided to the client on request.

During the demolition, the competent person shall check the structural integrity of the structure at regular intervals determined in the method statement. In order to avoid any premature collapses.

It is important for the contractor to ensure compliance against the requirements of Construction Regulation 14, as the client shall conduct ad hoc inspections to test for compliance.

8.3 Explosives and blasting

The contractor shall ensure where blasting is required with the use of explosives, that compliance with the Explosives Regulations.

The contractor must ensure that all work carried out in under the supervision of a competent person as defined in the Explosives Regulations which requires the competent person to have sufficient training and experience in, and knowledge of, the health and safety aspects of explosives deemed appropriate by the National Explosives Council or any other organisation approved by the chief inspector of occupational health and safety.

The contractor must ensure a detailed blasting plan, emergency plan and site layout plan is submitted for approval to the client.

8.4 Stacking of materials and housekeeping

The contractor must ensure compliance with CR 27 and CR 28 regarding sustained provision of good housekeeping, stacking and storage practices that will be supervised by a person competent and appointed in writing to supervise over the activities, and that clearly defined and allocated storage areas are provided for and identified, and that materials being stored within this area are stacked in accordance with sound stacking principles of sort-by-sort, access to be maintained, level surface, and the height will not exceed three times the base width.

Housekeeping must also be maintained at all times as this will be inspected and evaluated by the client during monthly audits.

8.5 Hazardous chemical substances

The contractor must ensure the necessary training and information regarding the use and storage of HCS is provided to all personnel, and that the use and storage of HCS is carried out as prescribed by the HCS Regulations.

Furthermore, the contractor must ensure that all chemicals brought to site have a Material Safety Data Sheet (MSDS) and the users are made aware of the Occupational hazards and precautions that need to be taken when using the chemical.

The first aider must also be made aware of the MSDS and how to treat HCS incidents appropriately.

Access to all HCS records shall be afforded to the client at all times.

8.6 Fuel/diesel

- Bulk storage areas must be demarcated, secured and sign-posted with the relevant warning pictograms.
- Bulk storage areas must be adequately bunded to ensure the containment of 110% of the stored product.
- Re-fuelling must be conducted in designated re-fuelling areas only.
- Spill kits must be available at all times in these designated areas.
- The surface of the bunded areas and walls must be of impermeable material.
- The bunded area must be sloped towards a collection pit.

8.7 Construction plant

- All plants` must comply with the OHS Act requirements in relation to operation and maintenance thereof.
- Records of service and maintenance of the vehicles must be of a high standard at all times.
- All plant shall subject to design be fitted with backup alarms and audible indicating devices.
- The contractor shall ensure that all construction plants moving parts are adequately protected.

- Pre-start inspections shall be conducted on all motorised equipment daily, deviations of such inspections shall be recorded.
- Construction plant identified for use shall be operated by a trained and authorised operator only.
- All construction plant shall be operated under the direct supervision of a person competent to identify potential hazards in the work he is conducting.
- Work involving the use of a construction plant shall be conducted in accordance with an approved risk assessment.
- The contractor shall ensure all operators are equipped with the necessary PPE namely, safety shoes, overalls, safety glasses, and gloves.
- All plant shall be fitted with an extinguisher where practicable.
- Washing shall be conducted in the designated washing areas.

The principal contractor shall ensure all equipment moving to and from site is adequately secured, and that all contractor's abide by this requirement.

The contractor must provide proof of medical and psychological fitness including training of all operators engaged in the construction activity.

8.8 Transport of personnel

- Should it be necessary for the contractor to transport their personnel to site, only safe vehicular transport must be provided. This shall include proper seating, side restraints and cover.
- No personnel shall be permitted to travel on any plant or equipment on the site works.
- Road safety principles shall be adhered to on and off site.

8.9 Pressure equipment or gas bottles

The contractor shall ensure they comply at all times with the Pressure Equipment Regulations, with specific reference to the following:

- Ensuring all equipment owned and hired-in pressure equipment, comply with the 36-month pressure vessel inspection, and a certificate of testing is available on site for inspection by the client.
- Ensuring that all personnel who shall use this equipment are competent and trained.
- Ensuring the users of this equipment is issued with the required PPE.
- Ensuring the area is adequately identified as a noise area and warnings are posted.

- Ensuring daily pre-start inspections are carried out on all the equipment and the findings recorded.
- Ensuring the correct fire prevention and fighting equipment is available at all times.
- Noise levels where possible shall be kept within reasonable operating norms.
- Ensure proper use and storage of gas during construction which may include trolleys upon which bottles are moved and chains to prevent bottles falling over.

The inspection of these activities will be included in the client's monthly safety audits.

8.10 Fire Equipment

The contractor shall ensure that all fire equipment to be used on site complies with the following:

- Extinguishers shall be placed in positions to ensure fast and easy access is maintained at all times.
- Placement of all extinguishers shall be depicted with the required pictograms.
- Extinguishers shall be serviced once annually and after discharge or visible signs of depressurisation.
- The contractor shall ensure all employees are adequately trained in the safe use of the extinguishers and proof of training is kept on site for inspection by the client.
- The contractor shall ensure a person is appointed to inspect the extinguishers on a monthly basis the results of which are to be entered into a register designed for that purpose.

8.11 Hired plant and machinery

- The contractor shall ensure the following criteria are adhered to when considering hired plant and machinery:
- Hired plant must be checked for safety compliance prior to being accepted for use on site, should a deviation be identified, the client reserves the right to order the removal of such equipment from site.

- Should hired equipment be accompanied by an operator, the contractor shall ensure that the operator's competency be verified, and the operator undergoes an induction training session.
- The contractor shall ensure the operators of hired plant attend weekly toolbox talks in conjunction with the contractor site personnel.
- The contractor shall ensure that all operators are equipped with the required PPE before commencing work on site.

8.12 Scaffolding/working at heights/falsework/temporary works/structures/fall protection

- Work involving scaffolding and work at heights shall comply with the requirements set out in the Construction Regulations 2014 pertaining to these activities with reference to the SABS 085 code of practice.
- Fall protection and rescue planning shall be done in conjunction with the risk assessment process and a fall protection Plan shall be provided to the CLIENT for approval prior any work involving work at heights is conducted.
- All scaffolds shall be erected under the control of a person trained and appointed to conduct such scaffold erection.
- Deviations found on any scaffolding, will result in the activity being stopped by the client until such time as compliance can be achieved.

8.13 Lifting machinery and tackle

The contractor shall ensure that the use of lifting machinery and tackle is done in accordance with the requirements of the Regulations, which include but is not limited to the following:

- Lifting machinery and tackle to be used on site shall be marked with the Maximum Mass Load (MML), which is the safe limit in which the equipment may be used.
- Inspections on lifting machines and lifting tackle shall be inspected once per month on the register provided and the findings recorded.
- Daily pre-start checks shall also be conducted on all lifting machinery and tackle.
- Records shall be kept of all lifting machinery and tackle inspections and load tests.

- Load tests shall be conducted a minimum of once per annum and a certificate of compliance shall be kept on record.
- A valid logbook shall be maintained for all lifting machinery, which will comply with a minimum six-monthly service and maintenance.
- Lifting machinery shall be operated under supervision at all times with a trained banksman who shall inspect all tackle before each lift.
- All lifting equipment operators shall be trained once every two years and a copy of such training shall be attached to the appointment, which is to be made on site.
- The operators shall be tested for medical fitness.

8.14 Ladders and ladder work

The following requirements shall be complied with regarding ladders and ladder work:

- Ladders shall be clearly numbered, and inspected on the register provided.
- A competent person shall be identified and appointed as the ladder inspector.
- Where aluminium ladders cannot be used, then wooden ladders shall be straight grained, unpainted to allow for proper inspection of the grain for cracking.
- Ladders shall be secured at the top and choked at the base to prevent slipping.
- Where chocking of the base is not possible, then the user shall ensure that the ladder is held in position by another employee when ascending the ladder.
- Ladders shall be inspected a minimum of once per month by the person appointed as the ladder inspector.
- Proper storage shall be provided for all ladders when not in use.

8.15 General machinery

In accordance with General Machinery Regulation 2(1), the contractor shall:

- Ensure a competent person be appointed as defined in the above clause from the Occupational Health and Safety Act No. 85 of 1993 and Regulations, to service and maintain all machinery in use on site.
- The contractor shall appoint additional competent persons to assist the competent person mentioned above in accordance with General Machinery Regulation 2(7)(a), as and when required.

- The contractor shall ensure that records are maintained of all services conducted.
- The contractor shall provide to the client a copy of the above appointments prior to work commencing on site.

8.16 Lighting and power

The contractor shall ensure lighting circuits and power circuits are fitted with suitable earth leakage systems and installed by an approved authority.

The contractor shall ensure that

- Earth leakage system will be tested monthly.
- Malfunctions shall be repaired immediately or replaced.
- Lighting shall be so positioned as not to interfere with construction activities.
- Lighting shall be provided to ensure adequate visibility under all conditions.
- Lighting and electrical installations shall be weatherproof.

8.17 Public health and safety

In the interests of public safety, the contractor shall ensure that all persons who may be affected by the work being conducted on site are informed and kept aware of the dangers, which may arise from the work being conducted on site.

This awareness shall be in the form of posters and inductions for visitors to site and warning signs.

8.18 Night work

Night work shall only be conducted upon approval by the client, with the same safety standard being applied for these activities as with day work activities.

8.19 Facilities for safe keeping/eating areas

The contractor shall ensure that adequate facility is provided for the personnel on site.

The area shall be providing the following:

- Sufficient seating
- Seating under cover
- Protected change room
- Toilets

- Hand wash facility
- Potable water

No food preparation shall be permitted on site and designated eating areas will be made to allow adequate seating.

Waste bins must be provided with plastic liners and must be strategically placed and cleared regularly.

8.20 Electrical Installations and Machinery

The contractor shall comply with the Electrical Installation Regulations, 2009, and the Electrical Machinery Regulations, 1988 and ensure the following:

- before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus which is under, over or on the site;

- all parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;
- the control of all temporary electrical installations on the construction site is designated to a competent person who has been appointed in writing for that purpose;
- all temporary electrical installations used by the contractor are inspected at least once a week by a competent person and the inspection findings are recorded in a register kept on the construction site; and
- all electrical machinery is inspected by the authorized operator or user on a daily basis using a relevant checklist prior to use and the inspection findings are recorded in a register kept on the construction site

8.21 Concrete works

The contractor shall ensure no person may cast concrete, until authorization in writing has been given by the competent person.

8.22 Roof works

Where roof work is being performed on the construction site, in addition to the fall protection plan, the contractor shall ensure that;

- the roof work has been properly planned;
- the roof erectors are competent to carry out the work;
- no employee is permitted to work on roofs during inclement weather conditions or if any conditions are hazardous to the health and safety of the employee;
- all covers to openings and fragile material are of sufficient strength to withstand any imposed loads;
- suitable and sufficient platforms, coverings or other similar means of support have been provided to be used in such a way that the weight of any person passing across or working on or from fragile material is supported; and
- suitable and sufficient guard-rails, barriers and toe-boards or other similar means of protection prevent, as far as is reasonably practicable, the fall of any person, material or equipment.

8.23 Ergonomic Risk Management and Controls

Ergonomic risk factors are characteristics of a job that contribute to the creation of ergonomic stress on the body. Risk factors are present at varying levels for different jobs and tasks.). The big three ergonomic risk factors are force (how much you lift/push/pull), repetition (how often you perform the task), and posture (body position). Other potential ergonomic risk factors include vibration, contact stress, sustained exertions, and cold temperatures.

- The contractor must ensure the application of the hierarchy of controls to reduce ergonomic risks.
- **Eliminate or substitute:** Where possible, eliminate or substitute tasks with high ergonomic risk. Consider mechanization, automation, or alternative methods.
- **Engineering controls:** Implement engineering controls to reduce risk at the source. This includes:
 - Workstation design: Provide adjustable workstations for different heights and tasks, ensure adequate clearance for movement, and minimize awkward postures.
 - Tools and equipment: Choose lightweight, ergonomically designed tools with comfortable grips and low vibration.
 - Material handling: Use mechanical lifting equipment whenever possible. Train workers in proper manual handling techniques.
 - Administrative controls: Implement administrative controls to manage work practices and reduce exposure: (Introduce work-rest schedules to prevent fatigue and allow for postural changes.)
 - Job rotation: Rotate workers between tasks with different ergonomic demands.
 - Training and awareness: Train workers on proper ergonomics, risk identification, and safe work practices.
- **Additional Considerations:**
 - Personal protective equipment (PPE): While not a primary control, PPE like padded gloves or back supports can offer additional protection in specific situations.
 - Maintenance and inspection: Regularly inspect and maintain workstations, tools, and equipment to ensure they remain ergonomically sound.

- Monitoring and evaluation: Continuously monitor the effectiveness of implemented controls and update the risk assessment and plan as needed.

8.24 Dust Management

The Contractor shall Conduct dust exposure risk assessment;

- Identify all tasks and activities that generate silica dust (e.g., cutting concrete, sandblasting, bricklaying).
- Evaluate the potential for dust generation and worker exposure for each activity. Consider factors like dust particle size, ventilation, work practices, and duration of exposure.
- Implement Controls; Elimination: If possible, eliminate dust-generating tasks by using alternative materials, techniques, or tools.
- Substitute materials with lower silica content or use dust-suppressing alternatives like wet cutting instead of dry cutting.
- Use of local exhaust ventilation (LEV) (Use on-tool dust extraction systems or localized exhaust hoods near dust-generating activities).
- Wet suppression using water spray systems to suppress dust during cutting, drilling, or other activities.
- Enclose dust-generating processes whenever possible.
- Develop safe work practices that minimize dust generation, like working downwind of dust sources.
- Regularly clean up dust accumulations to prevent airborne exposure.
- Schedule dust-generating activities when fewer workers are present or outdoors when feasible.
- Train workers on the hazards of silica dust, safe work practices, and proper use of PPE.
- As a last resort, provide appropriate PPE like respirators certified for silica dust protection. Ensure proper fit and maintenance.
- Regularly monitor worker exposure levels to silica dust to assess the effectiveness of controls and identify any gaps.
- Implement medical surveillance programs for workers exposed to silica dust to detect early signs of health problems.

- Communicate the risks of silica dust exposure and the implemented controls to all workers. Encourage their participation in safety efforts.
- Conduct Silica Dust Surveys to identify sources and levels of silica dust in the workplace.

8.25 Asbestos Handling and Disposal

- The contractor shall stop any work upon discovery of asbestos and inform the Client/Agent.
- No asbestos work shall be carried out prior to the approval of an Approved Inspection Authority who will assess and confirm that all control measures are in place before work may commence.
- The contractor shall ensure only an approved Asbestos contractor may be subcontracted and proof of registration should be kept as records.
- The contractor shall ensure the registered contractor submits a plan regarding asbestos work which includes; barricading and access control requirements, erection of warning signs, comply with task specific PPE, specify the handling, storage and disposal methods of asbestos in terms of the Asbestos Abatement Regulations of 2020.

8.26 Registers

The contractor shall ensure registers are available at the site offices at all times for inspection. Some of the registers required for this site are tabled below. The list is by no means exhaustive and the should be updated if unlisted activities require a register applicable and at what frequency they are going to be maintained.

ACTIVITY	FREQUENCY	FORMAT
Formwork / Support work	Daily, prior to any shift	
Excavation work	Daily, prior to any shift, after rain or blasting or after unexpected fall of ground	
Scaffolding	Daily, prior to any shift, after Rain or blasting.	
Material hoist	Daily	
Construction vehicles and mobile plant	Daily	

Temporary electrical installation	Weekly	
Stacking	Weekly	
Ablution facilities	Weekly	
Ladders	Weekly	
Incident register in terms of GAR 9	As Required	Annexure 1 WCL 2
Fall protection equipment	Daily	
Portable electrical tools	Weekly	
Suspended platforms	Daily	
Accommodation of traffic	Daily	
Firefighting equipment	Weekly	
Hand tools	Daily	
Visitor induction	Daily	
Proof of medical surveillance for every construction worker has been done	As Required	Annexure 3 of CR

8.27. Legal Appointments

LEGAL APPOINTMENTS AS REQUIRED IN THE CONSTRUCTION REGULATIONS			
Item	Construction Regulation	Appointment	Responsible Person
1.	5(1)(k)	Principal Contractor	Client / Agent
2.	6	Designer	Client / Agent
3.	7(1)(c)(v)	Contractor	Principal Contractor
4.	7(2)(c)	Sub-Contractor	Principal Contractor
5.	8(1)	Construction Manager	Principal Contractor
6.	8(2)	Assistant Construction Manager	Principal Contractor
7.	8(5)	Construction Safety Officer	Principal Contractor
8.	8(7)	Construction Supervisor	Principal Contractor
9.	8(8)	Assistant Construction Supervisor	Principal Contractor
10.	9(1)	Person to carry out risk assessment	Principal Contractor
11.	9(4)	Trainer/Instructor	Principal Contractor

12.	10(1)(a)	Fall protection planner	Principal Contractor
13.	11(2)	Competent structure inspector	Principal Contractor
14.	6(2) & 12(1)	Temporary Works Designer	Principal Contractor
15.	12(2)	Temporary Works Supervisor	Principal Contractor
16.	13(1)(a)	Excavation supervisor	Principal Contractor
17.	13(2)(b)(ii)(bb)	Professional engineer or technologist	Principal Contractor
18.	13(2)(k)	Explosives expert	Principal Contractor
19.	14(1)	Supervisor demolition work	Principal Contractor
20.	14(2) + (3)	Demolition expert	Principal Contractor
21.	14(11)	Explosives expert	Principal Contractor
22.	16(1)	Scaffold supervisor, Scaffold erector & Scaffold Inspector	Principal Contractor
23.	17(1)	Suspended platform supervisor	Principal Contractor
24.	17(2)(c)	Compliance plan developer	Principal Contractor
25.	17(8)(c)	Suspended platform expert	Principal Contractor
26.	17(13)	Outrigger expert	Principal Contractor
27.	18(1)(a)	Rope access supervisor	Principal Contractor
28.	19(8)(a)	Material hoist inspector	Principal Contractor
29.	20(1)	Bulk mixing plant supervisor	Principal Contractor
30.	20(2)	Bulk mixing plant operator	Principal Contractor
31.	21(2)(b)	Explosive actuated fastening device expert	Principal Contractor
32.	21(2) (g) (i)	Explosive actuated fastening device controller	Principal Contractor
33.	22(a)	Tower crane supervisor	Principal Contractor
34.	22(e)	Tower crane operator	Principal Contractor
35.	23(1)(d)(i)	Construction vehicle and mobile plant operator	Principal Contractor
36.	23(1)(k)	Construction vehicle and mobile plant inspector	Principal Contractor
37.	24(d)	Temporary electrical installations inspector	Principal Contractor
38.	24 (e)	Temporary electrical installation controller	Principal Contractor
39.	28 (a)	Stacking and storage supervisor	Principal Contractor

40.	29 (h)	Fire equipment inspector	Principal Contractor
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NB: Upon completion of the construction work and must, a principal contractor, hand over to the Safety Department, a health and safety file including a record of all drawings, designs, materials used and other similar information concerning the completed structure, in accordance to Construction Regulations 7(1) (e).

Client	Eastern Cape Department of Public Works and Infrastructure
Project Name	Idutywa Magistrate Court: Planned Maintenance, Repairs and Refurbishment
Date	30 July 2024
Revision	00
Authors	Viwe Mngambi-Maliti

METHODOLOGY

Level	Description of Consequence or Impact	Consequence	Risk Rating		
			Likelihood/Probability		
			L	M	U
H(1) High	Potential death, permanent disability or major structural damage. Off-site release not contained, significant detrimental environmental impact	H(1) High	1	1	2
M (2) Medium	Potential temporary disability or minor structural damage. On – site release contained. Short term detrimental environmental impact	M (2) Medium	1	2	3
L(3) Low	Potential incident that has the potential to cause persons to require first aid. Minor level clean with no short-term environmental impact	L(3) Low	2	3	3
Level	Likelihood/ Probability	Action Required	Escalation		
Likely	High	Immediate action required. Competent supervision, risk assessments, safe work procedures. Risks to be controlled and closely monitored	Report to Client Agent		
Moderate	Could happen	Mandatory action required. Competent supervision, risk assessments, safe work procedures. Risks to be controlled and closely monitored.	Report to Contracts Manager and Client Agent		
Unlikely	May occur only in exceptional circumstances	Supervision, training, safe work methods, toolbox talk	Report to Contracts Manager		

HAZARD IDENTIFICATION, RISK ASSESSMENT AND IDENTIFYING CONTROLS

Statutory Requirements

Section 8 of the OCCUPATIONAL HEALTH and SAFETY ACT 1993 (Act no. 85 of 1993), requires inter alia that the employer shall establish as far as is reasonably practicable, what the hazards to the health and safety of persons are attached to any work which is performed, further establish what precautionary measures should be taken with respect to such work and he shall provide the necessary means to apply such precautionary measures. The construction regulations 2014 further requires that a baseline risk assessment for an intended construction work project be compiled and a suitable, sufficiently documented and coherent site-specific health and safety specification for the intended construction work based on the baseline risk assessment to be prepared.

Application

The Principal Contractor shall establish, implement and maintain a procedure(s) for the on-going hazard identification, risk assessment, and determination of necessary controls.

The procedure(s) for hazard identification and risk assessment shall consider:

- ✓ routine and non-routine activities;
- ✓ activities of all persons having access to the construction site;
- ✓ human behaviour, capabilities and other human factors;
- ✓ identified hazards originating outside the construction site capable of adversely affecting the health and safety of persons or project progress under the control of the construction work site;
- ✓ hazards created in the vicinity of the construction site by other work-related activities under the control of other contractors;
- ✓ any applicable legal obligations relating to risk assessment and implementation of necessary controls;
- ✓ the design of work areas, processes, installations, machinery/equipment, operating procedures.

The Contractor's methodology for hazard identification and risk assessment shall:

- ✓ be defined with respect to its scope, nature and timing to ensure it is proactive rather than reactive; and
- ✓ provide for the identification, prioritization and documentation of risks, and the application of controls, as appropriate.

Before the construction work start, the Baseline Risk Assessment is a theoretical assessment before the construction start in order to highlight the foreseen hazards, but this is not intended to be seen as an absolute 100% of hazards that may occur.

The Principal Contractor or their appointed Contractor should make use of this risk assessment as a baseline and then consider all possible hazards that may be presented due to their specific scope of work and develop a site-specific risk assessment.

This Baseline Risk Assessment provides recommendations regarding the control measures, it is however the Principal Contractor duty to ensure that detailed control measures are addressed in the applicable unique Risk Assessment by the Principal Contractor or their appointed Contractor.

The risk rating is deliberately rated high because there are no controls in this and without the required controls the possibility of the potential risk is high, as indicated.

PROJECT BASELINE RISK ASSESSMENT

Task	Potential Hazard	Potential Risk	Controls	H-S-E Classification	Risk Rating	Legal Reference
1. FILE APPROVAL & ADMINISTRATIVE REQUIREMENTS	File Approval as per OHS Requirements and Client Specification	Work commencing prior to file being available and approved. No valid registration with COID. Expired Documentation (e.g. competencies, equipment load test, medicals, work permits) Documentation not available or approved as per required Client Spec and OHS act.	<ul style="list-style-type: none"> - No Work shall commencement until all approvals have been signed off. - Client Health and Safety specification. - Baseline Risk Assessment - Site Conditions evaluation 	H & S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Legal Appointments and Competency	Employees appointed not in possession of required or valid competencies as per Client Spec and OHS Act. Appointment not as per legal requirements. Lack of experience for appointed position.	<ul style="list-style-type: none"> - No Work Commencement until approval has been signed off. - Reference made to Client Health and Safety Specification. - Reference made to Baseline Risk Assessment 	H & S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Required legal documentation as per OHS act	Documentation not Site Specific. Policies and Procedure not in place and approved. Employees not trained in Policies and Procedures and legal requirements.	<ul style="list-style-type: none"> - No Work commencement until approval has been signed off. - Baseline Risk Assessment available - Training matrix provided - Communication of required documentation 	H & S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Risk Identification	Method of works not site specific Risk identification not in place or conducted Risk identification not site specific Risk controls not sufficient Risk Assessor not competent	<ul style="list-style-type: none"> - No Work Commencement until approval has been signed off. - Baseline Risk Assessment drawn up - Method Statement of Tasks available 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

	Construction Work Permit	Starting Work without construction work permit, work being stopped and possible fines by the labour department	Client to apply for the Permit for Construction work or appoint the CHS Agent to apply on his or her behalf and obtain the permit before any work can be done on site.	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Medical certificate of fitness	Employees without in possession of a valid medical certificate of fitness in the form of an Annexure 3. The medical assessments must be conducted by a registered Occupational Health Practitioner.	<ul style="list-style-type: none"> - Medical fitness certificates must be validated by the principal contractor to ensure adherence to the minimum requirements and validity of the document. - This should be made available prior to commencement of works 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Client and Designer Duties	Client not following requirements as stipulated in the regulations. Designers not appointed in writing and not made aware of their duties. Designers not following their legal duties throughout the project.	<p>Client to follow legal requirements as stipulated in the regulations before and during the construction process.</p> <p>Designers on the project to sign agreement in acknowledgement of their duties on the project.</p> <p>Designers to conduct the required inspections and review the required documentation as stipulated in the regulations.</p>	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

	Temporary hoarding to separate public and construction work.	Failure to follow specific position as required. Disruption of services during the erection of hoarding.	<ul style="list-style-type: none"> - Fence installation areas to be demarcated with netting when posts and fence is being installed. - Movable hoarding must be secured with weights at the base of the hoarding to prevent displacement. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
Site Establishment	Security	No security in place at entrances to construction site. Unauthorized entry to site. Theft of materials and equipment.	<ul style="list-style-type: none"> - The principal contractor must appoint full time security personnel to control the access onto site at all times. - Dedicated access control signbooks to be available for visitor sign ins. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Access control	Access control measures not in place at access gates. Accessing site from unsafe areas. Unauthorized entry onto site due to lack of access control measures.	<ul style="list-style-type: none"> - Only designated access gates manned by the security may be unlocked. - Only use access gates approved by the client. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Site Clearing	Use of unsafe mobile plant or machinery. Damage of site fence due to site clearing operations. Damage to existing services not marked or pointed out to the Principal Contractor. Employees being struck by moving plant working in the area. No dust control measures in place. Removing trees unsafely. Damage to neighboring properties. Several construction vehicles and mobile plant operating in confined space area and unsafe / uncontrolled interaction with employees on site. Construction vehicle and mobile plants reverse hooters not working. Unsafe stockpiles of soil or other materials on site. Unauthorized removal of	<ul style="list-style-type: none"> - All services on site must be pointed out by the client to the principal contractor. - Safe distance from site fence and services must be established by contractor and must be maintained and marked. - Dust control measures must be implemented by the principal contractor as determined by the environmental requirements. - All construction vehicles on site must be inspected when delivered to site to ensure adherence to the legal requirements before any usage of the 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

		indigenous & endangered fauna & flora.	plant			
	Site establishment - Transporting containers / temporary offices to site. - Offloading and placement of containers / offices.	- Safety signs and notice boards not placed close to entrance of main gate. - Lay down areas not of sufficient size. - Not informing employees and public what the site rules are. - crush injuries and falling objects due to manual handling - Incorrect placement / position of containers / site offices. - Tripping hazards / Fall risk	- Mandatory signage must be installed at the gates leading to site. - Installation of offices must be done under the supervision of a competent person. - Site allowed speed limit to be displayed and adhered to	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Employee facilities	Insufficient employee facilities on site, causing employees to pollute the site. Polluting the environment. Facilities not being cleaned and maintained. No changing facilities available for employees on site. No sheltered eating areas available for employees on site. No toilet facilities provided for employees	- There must be toilet facilities provided in line with legal requirements for each sex working on site. - Facilities to be cleaned daily by appointed members as per specification requirements. - Eating areas to be established at a safe and secure location on site. - Waste bins to be placed at strategic locations throughout site. - Changing facilities to be provided to contractors / employees.	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Exit / entry into the public roads	Injuries to pedestrians / members of public. Collision with public vehicles. No points men / flagmen positioned at access gates.	- Construction vehicle turning areas must be fitted with the applicable signage. - Areas effected next to public way must have designated flagmen.	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

		No warning signage displayed at the access gates to site for vehicles turning. No stop and go process in place should it be applicable.				
2. Site Activities	Material & equipment handling. Receiving and off-loading andloading of equipment and/or material	Delivery vehicle driver not familiar with the site. Driver not instructed on site rules. Vehicle parking in unauthorized area. Loads incorrectly / unsafely off loaded from vehicle. Loads incorrectly loaded onto vehicle or stacked incorrectly. No wayleave in place when offloading materials in public road. Materials have moved on / inside truck or delivery vehicle making it unstable. Overloading of vehicle. Materials falling onto employee. Employee handling materials sustaining hand injuries. Materials offloaded in the incorrect area / unsafe area.	Must be done under the supervision of an appointed competent inspector Must be loaded at designated areas only. Must be demarcated when loads are off loaded. -Employees must be provided with the PPE	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Interface with adjacent construction activities of other contractors.	No communication with other contractors on premises in close vicinity of work area	Must communicate daily regarding items that may affect 3 rd party or site access as well as other site activities.	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Live prison interface	Insufficient protection of neighboring premises by not using safety screens/ hoarding and barricading. No communication with the prison regarding noise levels, dust levels and working hours. No / insufficient dust control. Surrounding roads not cleaned at regular intervals.	Communicate with the prison regarding any items that may affect their activities or access. Keep the prison areas clean and free from any debris or material. Special Induction by the prison to be requested for special prison	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

			environment awareness and behavior of prisoners			
	Night work / After-hours work	No supervision / inadequate supervision on site during after-hours work. Inadequate illumination. Insufficient breaks. Exposed to extreme temperatures (cold). Use of drugs on site.	<ul style="list-style-type: none"> - May only commence after client approval is obtained. - Must in line with the working hour requirements as legislated. - Must be done under strict site management and supervision. - Emergency structure must accommodate night work. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Concrete breaking/ demolition works	Incorrect position and concrete chute not correctly positioned. Slipping and falling of breakers due to incorrect handling. Overloading of surface with building rubble accumulating.	<ul style="list-style-type: none"> - To commence under competent supervision. - Employees must be trained on the procedures to follow. - Material used for breaking must be inspected before and during use to ensure the safety of personnel. - Employees must be provided with the PPE. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Jack hammer / breaker operations	Employees not wearing the correct personal protective equipment while using jack hammer. Hand and arm vibrations can cause whitefinger syndrome. Injury to back and joints from manual handling. Damage to hearing from constant noise. Electrocution from faulty equipment or from operating in wet areas. Operator losing control over the tool. Foreign objects entering employees' eyes. Damage to existing services.	<ul style="list-style-type: none"> - To commence under competent supervision. - Employees must be trained on the equipment procedures. - Material used for breaking must be inspected before and during use to ensure the safety of personnel. - Employees must be provided with task specific PPE. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

	Asbestos handling	<p>Employees not wearing correct PPE</p> <p>No risk assessment performed</p> <p>Inhalation/ ingestion of ACM's</p> <p>Employees not trained</p> <p>Storage and disposal method not identified.</p>	<ul style="list-style-type: none"> - Operations to be under competent supervision. - Employees must be trained on asbestos handling and work at heights. - Proper storage and safe disposal method to be established. - Only approved asbestos contractor to handle operations. - Adequate and task specific PPE to be issued. - Asbestos to be disposed at a registered landfill site and proof of disposal obtained 	H&S&E	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	<p>Operating of construction vehicles and mobile plant</p> <p>Transport of employees & materials to site.</p>	<ul style="list-style-type: none"> - Vehicle crash on site. - Unauthorized use of construction vehicle and mobile plant. - Operator of construction vehicle not competent. - No reverse hooter installed / not in working condition. - Operator not conducting pre-start inspection on machine before operating. - Operator leaving the vehicle / plant unattended whilst the engine is still running or with the key still in the ignition. - Operator speeding on site. - Construction vehicle / mobile plant parked at an incline without stop blocks being put in place behind the wheels. 	<p>Must be operated by appointed trained and medically fit operators.</p> <ul style="list-style-type: none"> - Must be inspected daily before use. - Must be parked / stored onsite only at secured areas. - May not work near excavation edges. - Must have safe means of access. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Working at heights / elevated positions	<ul style="list-style-type: none"> - Falling objects - Not hooking safety harness catch to anchor point. - Anchor point not secure or strong enough. - Deliberately dropping materials or 	<ul style="list-style-type: none"> - Employees required to work at heights must be formally trained for the task at hand. - Anchorage points must be certified by a competent person before being used. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

		<ul style="list-style-type: none"> equipment. - Not keeping all debris, rocks, scraps and rubble away from the work area edges. - Employees working at heights not certified to work at heights. - Employees allowed to work at heights who is not medical fit and not in possession of a valid medical certificate of fitness. - No rescue plan in place for employees working at heights. 	<ul style="list-style-type: none"> - Fall arrest or restraints to be inspected before use. - Tools to be secured while working at heights to prevent falling objects. 			
	Fall protection	<ul style="list-style-type: none"> - No site and task specific fall protection plan available for the work at hand. - Employees not trained on the fall protection plan. - Fall protection plan not compiled and approved by a competent and approved fall protection planner. - Fall protection plan not implemented and maintained throughout project. 	<ul style="list-style-type: none"> - Competent fall protection planner to be appointed and must compile and sign off the fall protection plan. - Fall protection plan to address all site-specific conditions. - Fall protection plan to be implemented before heightwork can commence. - Fall protection plan to be updated throughout the project should the need arise for scope changes. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Lifting Equipment - Tower crane erection / operation and dismantle	<ul style="list-style-type: none"> - No records of service inspection not carried out prior to lifting operations - Load not determined/overloading 	<ul style="list-style-type: none"> - Must be done under strict competent supervision. - Avoid overloading. - Area to be barricaded during lifting operations - Signaler to be present. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Structures	<ul style="list-style-type: none"> - No structure inspections being done to prevent any part of the structure from being overloaded or becoming unstable. - The structure information not being made available on site to 	<ul style="list-style-type: none"> - Strict adherence to allowable loads must be maintained. - Structure designs to be available on site if any 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

		<p>ensure the designs are being complied with.</p> <ul style="list-style-type: none"> - Structure records and maintenance not done by the owner. - Structure not inspected as legislated in the regulations. 	<p>uncertainty arises or information is required.</p> <ul style="list-style-type: none"> - The client to ensure that structure inspections are conducted as legislated. 			
	Temporary Works General working operations on temporary works.	<ul style="list-style-type: none"> - Temporary works not designed by appointed Engineer. - Temporary works not being signed off by appointed Engineer prior to using temporary works. - Temporary works not being inspected on a daily basis by competent, appointed person. - Temporary works erected by incompetent employees / erectors. - Temporary works not adequately erected, supported, braced and maintained by competent person. - Temporary work structure not erected according to the design. 	<ul style="list-style-type: none"> - Must be designed and inspected by a competent appointed person as per the specification requirements. - Must be inspected daily. - Must have detailed designs available upon request. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Edge barricading Erecting & dismantling of edge barricading.	<ul style="list-style-type: none"> - No solid edge barricading installed on all open edges of buildings / excavations where there is a fall risk to employees. - Edge barricading not secured into position. Only installing guard rails and no knee rails in scaffolding tubing or similar system. - Edge barricading not inspected daily. 	<ul style="list-style-type: none"> - Must comply to the site requirements. - Must be inspected daily to ensure compliance. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Scaffolding	<ul style="list-style-type: none"> - Scaffolding not being erected in accordance to SANS 10085 standards. - Trained and appointed 	<ul style="list-style-type: none"> - Must be designed and inspected by a competent appointed person as per the 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

		<ul style="list-style-type: none"> scaffolding team not available on site. - Employees working at heights not certified to work at heights in accordance with the SAQA requirements for working at heights training. - Employees allowed to work at heights who is not medical fit and not in possession of a valid medical certificate of fitness. - No rescue plan in place for employees working at heights. - Scaffolding erected on uneven ground level. 	<ul style="list-style-type: none"> specification requirements. - Must be inspected daily. - Must be signed off as safe for use with signage clearly displayed before employees may commence with scaffolding work. 			
	Ladders	<ul style="list-style-type: none"> - Damaged ladder being used on site. - Ladders not inspected before use. - Ladders not positioned on level ground surface. - Employee using ladder unsafely. - Materials (tools & equipment) falling from ladders. - Ladders not clearly marked / register. - Ladders not fitted with non-skid devices at the bottom ends and hooks or similar devices at the upper ends of the stiles. 	<ul style="list-style-type: none"> - Must be inspected before use. - Must be fit for purpose. - Must be stored in secured location without damaging equipment. - Must be removed from site if found damaged or defective. - Employees must be provided with the PPE. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Formwork - general erection / dismantling and lifting and placing large panels, work on support decks	<ul style="list-style-type: none"> - Tools, working at height, load, unsecured deck - No engineer's approval - Collapse of temporary works 	<ul style="list-style-type: none"> - Injuries due to falling tools and load or deck collapse. - Operations to be done under supervision. - Plans and method statement to be approved by the engineer prior to commencement. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

	Excavations - using manual labour & motorised plan Excavations	<ul style="list-style-type: none"> - Damage to underground services - Incompetent operators - Inadequate tools - Limited areas - No signage 	<ul style="list-style-type: none"> - Operations to be done under competent supervision. - Tools to be inspected and registers completed. - Signage to correspond with site activities. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Electrical Tools	<ul style="list-style-type: none"> - Incorrect use of the equipment. - Persons not properly trained. - Tools not inspected prior to use or issue. - Injuries due to materials being ejected. - Electrical fires. - Moving parts – entanglement. - Vibration. - Dust inhalation. 	<ul style="list-style-type: none"> - Must be inspected before use. - Must be fit for purpose. - Must be stored in secured location without damaging equipment. - Employees must be provided with the PPE. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Hand tools	<ul style="list-style-type: none"> - Tools not inspected prior to use or issue. - Strike injuries to hand. - Make-shift hand tools being used. - Cuts from sharp blades. 	<ul style="list-style-type: none"> - Must be inspected before use. - Must be fit for purpose. - Must be stored in secured location without damaging equipment. - Must be removed from site if found damaged or defective. - Employees must be provided with the PPE. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Housekeeping	<ul style="list-style-type: none"> - Materials / equipment not stored properly. - Waste, scrap and debris not removed from site at appropriate intervals. - Materials on site obstructing means of access to and from site / work areas and passageways / walkways. - No weekly housekeeping checklist completed 	<ul style="list-style-type: none"> - Must be done daily. - Waste and rubble to be removed from site at appropriate intervals. - Employees must be provided with the PPE as per risk assessment 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Stacking and storage	<ul style="list-style-type: none"> - Brick pallets double stacked and not secured by being tied or wrapped. - Brick pallets double stacked next to public areas. - No Stacking & storage supervisor 	<ul style="list-style-type: none"> - Must be done under appointed supervision. - Must be done as per site requirements at designated areas 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

		<ul style="list-style-type: none"> - appointed. - Laydown areas not inspected weekly by appointed person. - Use of an unsuitable pallet for the loading or storage methods of bricks and other materials. - Continued use of damaged pallets. - Insufficient storage areas provided. - Storage areas not demarcated and clearly identified. - Storage areas not kept neat and under control. - Employees removing materials from the bottom of the stack and not from the top. 	<ul style="list-style-type: none"> - clearly marked and demarcated. - Employees must be provided with the PPE as per risk assessment 			
	Storage and use of flammable liquids	<ul style="list-style-type: none"> - Flammable liquids, solids, and gases not stored correctly. - Required notices and signs not clearly displayed in the area where flammable liquids, solids or gases are stored / located. - No fire extinguishers / insufficient fire extinguishers available in close proximity. - Material safety data sheets not available & not communicated with employees. 	<ul style="list-style-type: none"> - All flammable liquids to be stored in a lockable, well-ventilated and bunded store - Signage to be displayed indicating no naked flames and fire hazard - Fire extinguisher to be located outside the flammable store - All flammables kept in store to have corresponding material safety data sheets 	H&S&E	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Flame cutting and welding	<ul style="list-style-type: none"> - Effect the structural integrity of the structure if welding is not done correctly. - welding emissions not being - No flash back arrestors installed on gas welding equipment. - Gas welding & cutting: - Fire extinguisher not available in nearby vicinity. 	<ul style="list-style-type: none"> - May only be used by trained and appointed employees. - Must be stored in line with the manufacturer's specifications. - Employees must be provided with the PPE as determined in the task risk assessment - Working areas to be clearly marked via signage. 	H&S&E	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

			<ul style="list-style-type: none"> - Always have sufficient firefighting equipment available. 			
	Electrical installations	<ul style="list-style-type: none"> - No COC issued for permanent / temporary electrical installations. - Temporary electrical installations not inspected weekly by competent, appointed person. - Contractor conducting electrical installation work not registered with the Department of Labour as an electrician. 	<ul style="list-style-type: none"> - Electrical installer to be trained and in possession of the Wireman's license - All Electrical works to be done under constant supervision. - Must be done in line with engineer's requirements. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Roof structure installations	<ul style="list-style-type: none"> - Roof structure not secured properly. - Insufficient temporary bracing. - Tools falling down top areas below. - Incorrect levels and alignment. - Employees erecting structure falling from height. 	<ul style="list-style-type: none"> - Employees must be medically fit to work at heights and must be trained at fall risk work. - Must be done in close reference to fall protection plan. - Employees must be provided with task specific PPE. - Must be done under constant supervision. - Must be done in line with task risk assessment to ensure the safety of employees. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Roof coverings / Sheeting / Tiling etc.	<ul style="list-style-type: none"> - Inadequately secured sheets. - Tools could fall down. - Overloading of structure with covering. - Falling objects. - Not hooking safety belt catch to anchor point. - Anchor points not secure or 	<ul style="list-style-type: none"> - Task specific PPE to be issued to Employees - Task to be done under constant supervision. - Must be done in line with task risk assessment to ensure the safety of employees. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

		<p>strong enough.</p> <ul style="list-style-type: none"> - Deliberately dropping materials or equipment. 	<ul style="list-style-type: none"> - Employees must be medically fit to work at heights and must be trained at fall risk work. - Must be done in close reference to fall protection plan. 			
	Cladding	<ul style="list-style-type: none"> - Unsafe working platforms used to install cladding. - Employees not trained to do specific cladding. - Using hoists to do cladding on site without authorization. 	<ul style="list-style-type: none"> - risk assessment - Must be done under constant supervision. - Must be done in line with task risk assessment to ensure the safety of employees - Employees must be provided with the PPE as determined in the task 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Concrete Pouring	<ul style="list-style-type: none"> - Incompetent and driver under the influence of alcohol or drugs - Insufficient PPE for use during concrete pour - Walking on uneven ground while vibrating concrete - Serious accidents on site involving employees - Ingestion of concrete mix, eye irritations and skin irritations - Tripping and falling on steel resulting in injuries 	<ul style="list-style-type: none"> - To commence under competent supervision. - Employees must be trained on the pouring procedures to follow. - Material used for pouring must be inspected before and during use to ensure the safety of personnel. - Employees must be provided with the PPE. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Road surfaces & Landscaping	<ul style="list-style-type: none"> - Incompetent operators for various compacting machinery - Exposure to noise and dust - Use of asphalt/bitumen - Collision of plant 	<ul style="list-style-type: none"> - To complete task under competent supervision. - Adequate PPE per task to be provided including visible reflective clothing. - Employees to be trained on the task. - All work areas, holes and excavations to be securely barricaded or fenced off. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

	General Construction works	<ul style="list-style-type: none"> - Working with silica (cement dust) during the mixing of mortar - incompetent bricklayers not following building standards and regulations. - Strong paint fumes in a poorly ventilated environment - Insufficient working at height equipment - Spillages, wrong cleaning of painting tools and disposal of empty paint containers. - Noise and dust exposure - Insufficient work spaces - Lifting heavy loads - Inclement weather - No risk assessment conducted on PPE requirements vs activities conducted on site - Occupational Health related diseases and infection. 	<ul style="list-style-type: none"> - All works to be undertaken under constant strict supervision - PPE to be provided - Training on risk on various task risk assessment to be done - Ensure adequate ventilation - Loads to be shared if mechanical lifting means not available. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Community unrest	<ul style="list-style-type: none"> - Incorrect recruiting of site personnel - Non-payment of employees - Poor communication - Unhappy community members disturbing progress - Property damage 	<ul style="list-style-type: none"> - Clear communication lines between the project and community representatives. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

4. Emergency Preparedness and Procedures	Emergency preparedness and response	<ul style="list-style-type: none"> - Principal Contractors' emergency plan and procedures not issued to subcontractors on site. - Emergency plan not communicated with employees. - Emergency contact numbers not made available and displayed in prominent areas onsite. - No competent Emergency evacuation controller appointed. 	<ul style="list-style-type: none"> - Employees must be trained on the emergency plan when. - Emergency assembly areas to be clearly marked and maintained throughout the project duration. 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.
	Incident Reporting procedures Reporting of incidents to Department of Labour	<ul style="list-style-type: none"> - Incidents not reported - Incident not investigated by the Incident Investigator and on time. - Preventative measures not communicated to employees on site. - Employees not being trained on Incident reporting procedures. - No trained First aider appointed. - No first aid kit readily available on site. 	<ul style="list-style-type: none"> - Employees must be trained on the procedures regarding incident management. - Employees to be inducted on the first aid requirements 	H&S	H1	Occupational Health and Safety Act and Regulations (85 of 1993) and incorporated safety standards.

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

PART C3.3 ELECTRICAL SPECIFICATIONS



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EASTERN CAPE DEPARTMENT OF PUBLIC WORKS

IDUTYWA MAGISTRATE'S OFFICE : REPAIRS AND RENOVATIONS TO THE EXISTING BUILDING (WCS 054991)

PROJECT SPECIFICATION AND SCHEDULE OF QUANTITIES NOTES FOR THE ELECTRICAL ENGINEERING SERVICES (ELECTRICAL INSTALLATION) (ELECTRICAL INSTALLATION)

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Tenderer's Name :

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Tenderer's Address :

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February 2025

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DRAWING SCHEDULE

E20246 - 2023 - 472 / 0 - 000 Rev D (Legend)
E20246 - 2023 - 472 / 0 - 001 Rev C (Lightning Protection)
E20246 - 2023 - 472 / 1 - 000 Rev F (Lighting Layouts)
E20246 - 2023 - 472 / 1 - 001 Rev C (Lighting Rendering Layouts)
E20246 - 2023 - 472 / 2 - 000 Rev F (Small Power Layouts)
E20246 - 2023 - 472 / 2 - 001 Rev F (AC&V Small Power Layouts)
E20246 - 2023 - 472 / 9 - 000 Rev B (Single Line Diagram)
E20246 - 2023 - 472 / 16 - 000 Rev E (Solar Layout)

Decanting Site

E20246 - 2023 - 472 / 0 - 002 Rev 0 (Sleeve and Manhole Layouts)
E20246 - 2023 - 472 / 0 - 003 Rev 0 (Sleeve and Manhole Layouts)
E20246 - 2023 - 472 / 16 - 001 Rev 0 (Solar Layout)
E20246 - 2023 - 472 / 1 - 002 Rev 0 (Lighting Layouts)
E20246 - 2023 - 472 / 2 - 002 Rev 0 (Small Power Layouts)

PART 1

THE SCHEDULES

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PART 1A

PARTICULARS RELATING TO TENDERER

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building Electrical Engineering Services (Electrical Installation)

1. The registered and trading names, physical and postal address, and contact numbers for the tendering entity.

Registered Name :

Trading Name :

Physical Address :

Postal Address :

Telephone No. :

Facsimile No. :

2. The full first and surnames of their partners and/ or directors and their domiciles and addresses.

Full Name (1) :

Address (1) :

Full Name (2) :

Address (2) :

Full Name (3) :

Address (3) :

3. The names and addresses of the local agents, firms, or representatives who are interested in any manner whatsoever in the tender.

Full Name (1) :

Address (1) :

Full Name (2) :

Address (2) :

4. Bank Details Bank Name :

Branch & Code :

Account Number :

Contact Person :

Telephone No. :

.....
Name

.....
Signature

.....
Date

PART 1B

VARIATIONS TO SUB-CONTRACT

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)**

These rates are to be used in the event work is not readily measurable in terms of the attached Schedule of Quantities or Schedule of Rates

I / We agree that any variations to the agreement (not priced elsewhere in this Tender Document) will be priced strictly in accordance with the rates submitted below. The rates (exclusive of VAT) shall be calculated as specified below :

- Cost shall mean the nett cost of equipment or materials supplied to site with all discounts offered
- The labour rates shall include all personnel insurance costs, holidays with pay and travelling time payments, incentive bonuses and overtime premiums, except for overtime payment when overtime is authorised in writing by the Consulting Electrical Engineers
- Percentage and labour rates shall include profits, overheads, financing, insurance, guarantee (with free maintenance) costs, engineering and management

1. for the supply of equipment over and above that originally required by the specifications and drawings Cost Plus _____ %
2. equipment deleted will be at the price entered in the price schedule or at the supplier's selling price, unless a fixed price for deletion of an item is specified elsewhere in the Tender Document
3. for substituted equipment, the percentage reflected in item (1) above will only apply to the difference in the supplier's price arising from the substitution
4. for the supply of all labour, charges will be levied at the selling rate (for normal time) of :

Foreman	_____	per hour
Commissioning Engineers	_____	per hour
Tradesman	_____	per hour
Journeyman	_____	per hour
Labourer	_____	per hour
Other specialists / hour	Cost Plus _____	%

5. If pricing by team work is the standard practise of the Electrical Sub-contractor, the team shall comprise the following :

_____	persons / team members at	_____	selling price per hour
-------	---------------------------	-------	------------------------

6. Overtime rates

Night (after 19h00)	_____	times normal time
Saturday	_____	times normal time
Sunday and Public Holidays	_____	times normal time
Other (specify)	_____	times normal time
7. Transport charges

Car	_____	Rand per km
LDV (under 2 tonnes)	_____	Rand per km
Truck (between 2 and 5 tonnes)	_____	Rand per km
Other (specify)	_____	Rand per km

 Name

 Signature

 Date

PART 1C

PRICE ADJUSTMENT SCHEDULE

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)**

Does your Tender Price include forward cover for foreign exchange variations ?

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

The tenderer shall detail all adjustments to which the prices and rates listed in this Tender Document are to be subjected to.

The tenderer shall enter NIL hereunder if prices are not subject to adjustment.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Name

Signature

Date _____

PART 1D

STATEMENT OF COMPLIANCE OR QUALIFICATION BY TENDERER

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)**

Does this Tender comply in every respect with the Conditions of Tender, Conditions of Contract, Schedules, Project Specifications, Schedule of Quantities and Drawings ?

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

If NO, detail qualifications hereunder. Failure to do so shall imply compliance.

Qualifications :

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.....
Name

Signature

.....
Date

PART 1E

SCHEDULE OF SUB-CONTRACTORS PROPOSED BY TENDERER

**Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)**

The Tenderer shall state hereunder the names and particulars of all Sub-contractors he proposes to employ on the Works. The Tenderer shall also define the duties and relevant experience of each Sub-contractor listed.

Name of Sub-contractor	Contact Numbers	Proposed Duties	Experience

_____	_____	_____
Name	Signature	Date

PART 1F

SIMILAR INSTALLATIONS CARRIED OUT BY TENDERER

Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)

The Tenderer shall list below all similar works carried out by him including Client details and value of the Works.
Failure to comply may invalidate the Tender.

Name of Contract	Year	Client	Consulting Engineers	Value (R)

Name

Signature

Date

PART 1G

SCHEDULE OF WORK IN HAND

Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)

The Tenderer shall detail below all Work currently in progress.

Client	Project Details	Project Value (R)	Completion Date

Name

Signature

Date

PART 1H

SCHEDULE OF MATERIALS

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)**

The Tenderer shall detail below all materials proposed in order to complete the Works specified. (Failure to complete this schedule may invalidate the tender submission).

	Description	Manufacturer
Medium Voltage Reticulation		
Ring Main Unit		
Miniature Substation		
Cables		
Terminations and Joints		
Low Voltage Reticulation		
Cables		
Terminations and Joints		
Ducts and Accessories		
Cable Markers		
Warning Tape		
Electrical Distribution Boards		
Electrical Distribution Boards		
Electrical Equipment		
Isolating Transformers		
Insulation Monitoring and Earth Fault Current Limiters		
Draw Trays		
Contactors		
Photo-electric Daylight Switches		
Timer Switches		
Light Switches / Socket Outlets		
Isolators		
Moulded Case Isolators / Circuit Breakers		
Earth Leakage Units		
Wiring Duct and Accessories		
Underfloor Duct and Accessories		
Power Skirting and Accessories		
PVC Conduit and Accessories		
Galvanised Conduit and Accessories		
PVC Insulated Copper Conductors		
Luminaires Type 1		
Type 2		
Type 3		
Type 4		
Type A		
Type B		
Type C		
Type D		
Solar Equipment		
Hybrid Inverter		
Lithium-ion Battery		
Tier 1 Mono Panels		

Name

Signature

Date

PART 1I

SCHEDULE OF STAFF AVAILABLE

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)**

The Tenderer shall provide a list of all staff (from senior personnel to labourers) that will be made available to perform any duties for and on behalf of the Tenderer on this project. The Tenderer may attach a company organigram for information purposes.

The Tenderer shall note that a competent Accredited Person registered as an Installation Electrician shall be responsible for the Works and present on site at all times.

Name	Designation	Experience	Qualification	Registration *

* This information shall be as appearing on the certificates as required in terms of the Occupational Health and Safety Act No 85 of 1993

Name

Signature

Date

PART 1J

AGREEMENT RELATING TO OCCUPATIONAL HEALTH & SAFETY ACT

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)**

Agreement between the Principal Contractor and the Mandatory (hereinafter referred to as the Sub-contractor) as envisaged in Section 37 (2) of the Occupational Health and Safety Act No 85 of 1993 as amended.

Background Information :

1. The Occupational Health and Safety Act comprises Sections 1 to 50 and all unrepealed Regulations promulgated in terms of the former Machinery and Occupational Safety Act No 6 of 1983 as amended as well as any other Regulations which may be promulgated from time to time in terms of the new Act.
2. The Mandatory as defined in the Act may be an agent, a contractor or a sub-contractor. This shall not derogate from the Electrical Sub-contractor's status as being the responsible employer on this particular Contract.
3. Section 37 of the Occupational Health and Safety Act has the potential of punishing Clients (Principals) for the unlawful acts or omissions of Contractors save where a written agreement has been concluded between the parties containing arrangements and procedures to ensure compliance with the said Act by the Electrical Sub-contractor. This Agreement constitutes such a written agreement.
4. This sub-contract document forms an integral part of the Agreement.
5. To be able to perform in terms of the Agreement, Sub-contractors must be familiar with the relevant provisions of the Act.
6. The liability of the Electrical Sub-contractor under this Agreement will commence on the day the site is handed over to the Electrical Sub-contractor and terminate when the site is handed back to the Client.
7. Sub-contractors who intend to utilise the services of further Sub-Contractors are advised to conclude a similar Agreement with their Sub-Contractors.

I
representing (the Electrical Sub-contractor)

hereby acknowledge that the Electrical Sub-contractor is an employer in his own right with duties as prescribed in the Occupational Health and Safety Act No 85 of 1993 as amended. The Electrical Sub-contractor undertakes to ensure that all work will be performed, and machinery and plant used, in accordance with the provisions of the said Act. The Electrical Sub-contractor furthermore agrees to comply with the requirements of the Client as contained in the Contract documents and to liaise with the Client should he, for whatever reason, be unable to perform his duties in terms of this Agreement.

Signed at (place) on (date / month / year)

Signature on behalf of the Sub-contractor (the Mandatory)

Signature on behalf of Eastern Cape Department of Public Works (the Client)

PART 1K

CERTIFICATES REQUIRED

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)**

The Tenderer shall submit proof of the following, namely :

Compulsory Documentation

1. Notice of Registered Office and Postal Address of Company, in terms of the Companies Act, 1973, including the Company Registration Document accompanied by Share Certificates, where applicable i.e. Cipro Certificate
2. Copies of the Identity Documents, for each of the respective Directors / Members / Partners / Shareholders/ Trustees, etc.
3. Tax Clearance Certificate, as issued by the South African Revenue Services
4. Accredited Valid Original or Certified B-BBEE Certificate
5. Declaration of Insurances : Workmen's Compensation Assurance
: Unemployment Insurance Fund
: Contractor's All Risks Insurance
6. Original Bank Stamped Letter or Cancelled Cheque as Proof of Bank Account
7. Licence of the Accredited Person registered as an Installation Electrician who will be responsible for the Works and the on-site supervision thereof (*where applicable*)
8. Licence of the Accredited Person registered as a Master Installation Electrician who will be responsible for the relevant portion of the Works and the on-site supervision thereof (*where applicable*)
9. Proof of registration of Company, and where applicable, the relevant persons, with the Private Security Industry Regulatory Authority (PSIRA) (*where applicable*)
10. Proof of registration of all persons who will be involved in this project with the South African Qualification & Certification Committee (SAQCC) for the Fire Industry (*where applicable*)
11. Proof of registration of Company with the Fire Detection Installers Association (FDIA) (*where applicable*)
12. Proof of registration as a "Gas Installer", in terms of the Government Gazette, number 32395, dated 15 July 2009, as amended (*where applicable*)
13. Proof of registration of Company with the Automatic Sprinkler Inspection Bureau (Pty) Ltd (ASIB) (*where applicable*)

Supplementary Documentation

14. Company Profile (Abridged Version)
15. Proof of Location of Office
16. Electrical Sub-contractors Association (ECA) Registration Certificate (for the associated electrical Works)
17. Proof of Central Supplier Database Registration

Name	Signature	Date

PART 1L**FORM OF RESOLUTION**

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)**

This form is to be completed in full by the Tenderer. Failure to do so may invalidate the Tender.

At a meeting held by the Directors / Members / Partners / Trustees of

_____ (Tenderer's Name)

at _____ (Place)

on the _____ (Day / Month / Year)

it was resolved

that _____

in his / her capacity as their _____

is hereby authorised and empowered to sign the Tender and / or Contract Documents for the project known as the

**“Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)”**

for and on behalf of the Tenderer.

Signed : _____ Signed : _____

Capacity : _____ Capacity : _____

PART 1M**SITE INSPECTION CERTIFICATE**

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Electrical Installation)**

This form is to be completed in full by the Tenderer. Failure to do so may invalidate the Tender.

This is to certify that I / we

the representative (s) of

(Tenderer's Name)

_____ (address)

_____ telephone number

_____ facsimile number

certify that I / we have examined the site, drawings and tender documents and have made myself / ourselves fully conversant with all conditions and circumstances likely to influence the rates tendered.

Name of Tenderer's Representative

Signature of Tenderer's Representative

Name of Consulting Electrical Engineers' Representative

Signature of Consulting Electrical Engineers' Representative

PART 2

PROJECT SPECIFICATION

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PART 2

PROJECT SPECIFICATION

Any requirement or statement made in this Project Specification section of the specification shall override the requirements of Part 3 : Standard Specifications and the Drawings.

2.1 GENERAL

This specification covers all Works necessary for the electrical engineering (electrical) services installation of the project known as the “Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building Electrical Engineering Services (Electrical Installation)”.

The project generally comprises the following Works, namely :

- ❑ Alterations, refurbishment to the Idutywa Magistrate's Office
- ❑ Alterations and refurbishment to the Decanting Site for the temporary Magistrate’s office

This sequencing of the Works and the “unofficial” sectional completion requirements will be negotiated by the Client, Professional Team, Principal Contractor and the successful Tenderer.

The proposed base sequencing of the Works is as follows:

Decanting (Phase 1)

- ❑ Phase 1A – Addition of park homes (Offices) to the respective site as instructed
- ❑ Phase 1B – Moving of staff/equipment to temporary offices

Refurbishment to Existing Magistrate Offices (Phase 2)

- ❑ Phase 2 - Refurbish and Alterations to entire area

The Tenderer’s attention is specifically drawn to the fact that at Practical Completion the completion of specific sections must be such that the Client can actually move into the premises and commence conventional operational related activities.

Thus, programming for the Works must allow for the systematic clearance of all outstanding work and defects (save only latent defects) prior to the “Sectional” and “Practical” Completion circumstances required. The Works to be cleared are to include all electrical and mechanical installations including commissioning procedure and certificates of compliance etc., in addition to the building works.

Any works to the exterior of the building which do not impact on the conventional operational Hospital-related activities could be exempted from this requirement regarding “Sectional” and “Practical” Completion.

2.2 SCOPE OF WORK

2.2.1 Principle Items of Work

The principle items of Work covered by this Sub-contract comprises the supply, delivery, installation, testing, commissioning and three (3) months guarantee (with free maintenance during the guarantee period) of the complete Works involved in the electrical engineering (electrical) services installation, as further detailed below, namely :

- ❑ Preliminary & General Items
- ❑ The necessary liaison with the Client’s Maintenance Personnel for the energising and de-energising of the electricity services
- ❑ The supply and installation of conduits, ducts, trays, trunking, wireways and associated accessories, etc. as required for the complete electrical installation
- ❑ The supply and installation of the complete electrical engineering services installation including lighting (normal, essential and specialist services), small and large power (normal, solar and essential services)

- ❑ The supply and installation of conduits, ducts, trays, trunking, wireways and associated accessories and power supplies, etc., as required for the respective specialist sub-contract installations, as detailed in the “Project Specification”
- ❑ Provisional Sums as detailed in the Schedule of Quantities
- ❑ Provision of Record Drawings and Operating and Maintenance manuals
- ❑ Provision of Certificates of Compliance for complete installation covered in this specification
- ❑ All other materials, equipment, labour and services necessary for the complete, safe and efficient operation of the Works in full accordance with the specifications as detailed in the “Project Specification”
- ❑ Maintenance during the three (3) months defects liability period i.e. if, during the defects liability period, the electrical installation is not in working order for any reason for which the Electrical Sub-contractor is responsible, or if the installation develops any defects, the Electrical Sub-contractor shall immediately upon being notified thereof take steps to remedy the defects

2.2.2 Works to be carried out by Others

The Electrical Sub-contractor will be responsible for ensuring that the electrical sub-contract Works is completed in accordance with Principal Contract, with the necessary co-ordination between the parties.

The Principal Contractor shall, under separate contracts, employ various other parties for the supply, installation, testing and commissioning of various specialist equipment installations i.e. but not limited to, the following :

- ❑ Supply and installation of air-conditioning and ventilation services installation, which shall be carried out by the Air-conditioning and Ventilation Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of early warning detection and alarm installation, which shall be carried out by the Early Warning Detection and Alarm Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of fire protection services installation, which shall be carried out a Fire Protection Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of hot and cold water services installation, which shall be carried out by the Plumbing Sub-contractor, appointed as a Domestic Sub-contractor to the Principal Contractor
- ❑ Supply and installation of a medical gas installation, which shall be carried out by a Medical Gas Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of specialist telecommunications services (where applicable) i.e. telephone and data, emergency bell and nurse-call, access control and door security, intercom, closed circuit television, radio, public address, television and television aerial services installations, etc. which shall be carried out by respective Sub-contractors, appointed as Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of specialist equipment, furniture, fittings and appliances, appointed either as Domestic, Nominated or Selected Sub-contractors to the Principal Contractor

The Client shall, under separate contracts, employ various other parties for the supply, installation, testing and commissioning of various specialist equipment installations i.e. but not limited to, the following :

- ❑ Supply and installation of specialist medical equipment installation, which shall be carried out by the Specialist Medical Equipment Sub-contractor, appointed as a Direct Contractor to the Client

The Electrical Sub-contractor shall work in close liaison with the appointed Contracting Parties.

2.3 INSPECTION OF SITE

The Consulting Electrical Engineers will not hold a compulsory site inspection meeting.

The prospective Tenderers are advised to thoroughly acquaint themselves with the nature and extent of Work to be done and to make allowance for items obviously intended and necessary for the proper completion of the Works, although not specified.

By submitting a tender it is accepted that the Tenderer is fully aware of all site conditions as well as the access to it, and has allowed for this in their Tender Price. Claims due to lack of knowledge will not be entertained.

2.4 SITE CONDITIONS

2.4.1 Location and Description

Decanting Site : The site is situated in Streatfield Street, Idutywa.

Main Site : The site is situated on Corner of N2 and market Street, Idutywa.

2.4.2 Access to Site

Security on site is of utmost importance. The Electrical Sub-contractor shall ensure that their workforce (site personnel) is aware thereof and acts accordingly.

For further information on the access to site, please refer to Part 7 “Extract from Principal Contract Tender Documentation w.r.t. Preliminary and General Items”, of this document. The Electrical Sub-contractor shall be required to comply with the conditions stipulated in Part 7 w.r.t. access to site.

2.4.3 Existing Services

There are known existing electrical and mechanical services on site. Therefore, the Electrical Sub-contractor shall take the necessary precaution.

The Principal Contractor shall provide a temporary water connection to the construction site for use by all Contracting Parties.

The Principal Contractor shall provide a temporary electricity connection to the construction site for use by all Contracting Parties.

The Principal Contractor shall provide temporary toilet facilities to the construction site for use by all Contracting Parties.

Coverage from the main cellular phone communications networks is available on site.

2.5 COMPLIANCE WITH REGULATIONS, STANDARDS AND CODES

The entire installation shall be in full conformity with the current versions of the following :

- ❑ the South African National Standard : Code of Practice for “The Application of the National Building Regulations” i.e. those included in the “National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977)”, as published in the Government Gazette, number 31084, dated 30 May 2008, which became effective as of 01 October 2008, and known as “SANS 10400 - 2010”
- ❑ the Occupational Health and Safety Act, 1993 (Act 85 of 1993),
- ❑ SANS 204-1 : 2008 - Energy Efficiency in Buildings : Part 1 - General Requirements,
- ❑ SANS 204-2 : 2008 - Energy Efficiency in Buildings : Part 2 - The Application of the Energy Efficiency Requirements for Buildings with Natural Environmental Control,
- ❑ SANS 204-3 : 2008 - Energy Efficiency in Buildings : Part 3 - The Application of the Energy Efficiency Requirements for Buildings with Artificial Ventilation or Air-conditioning,
- ❑ any other relevant by-laws of the Local Authorities.
- ❑ SANS 507-1 : (NRS 034-1 : 2007) Electricity Distribution - Guidelines for the Provision of Electricity Distribution Networks in Residential Areas (Part 1 : Planning and Design of Distribution Networks)
- ❑ SANS 10114-1 : 2005 : Interior Lighting
- ❑ South African National Standard : SANS 10142-1: 2003 - The Wiring of Premises : Part 1 - Low-voltage Installations
- ❑ “SANS 0313 - 1999 : The Code of Practice for “The Protection of Structures against Lightning”

Further, the Electrical Sub-contractor shall adhere to all the relevant regulations, standards and codes specified in Part 2 of this Tender Document.

All apparatus, components, parts, fittings and materials supplied and / or installed, whether specifically specified herein or not, shall conform in respect of quality, manufacture, tests and performance with the requirements of the

appropriate current South African (SABS) or British Standard Specifications (BS) and Addenda thereto, except where otherwise required by this specification or permitted by approval of the Consulting Electrical Engineers, in writing.

All materials and workmanship, which may, in the opinion of the Consulting Electrical Engineers, be inferior to that specified for the Work, will be condemned. All condemned material and workmanship must be replaced or rectified as the case may be, to the satisfaction of the Consulting Electrical Engineers.

Any fitting or item of equipment not specifically mentioned but obviously necessary for the successful completion of the installation is to be included so as to form a complete working installation.

2.6 SUPERVISION

The Works shall at all times, for the duration of the contract, be carried out under the supervision of a competent representative of the Electrical Sub-contractor, who should also be an Accredited Person registered as an Installation Electrician in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended.

The relevant portion of the Works shall at all times, for the duration of the contract, be carried out under the supervision of a competent representative of the Electrical Sub-contractor, who should also be an Accredited Person registered as a Master Installation Electrician in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended.

The afore-mentioned representatives of the Electrical Sub-contractor shall be able and authorised to receive and carry out instructions on behalf of the Electrical Sub-contractor.

2.7 PROGRAMME

Please refer to main contractor document for the relevant programme.

2.8 SAMPLES AND ALTERNATIVES

The preferred manufacturer / makers of equipment and / or material are as described in either the Project Specification, the Standard Technical Specifications or as listed in the Schedule of Quantities.

The Client reserves the right to specify the equipment and / or materials utilised in the Works. No alternatives to equipment and / or materials are to be used unless written approval is obtained from the Client, or his Representative and / or the Consulting Electrical Engineers.

2.9 DEFINITIONS

- ❑ Supply : To purchase, procure and deliver complete with all related specified accessories
- ❑ Erect : To place or mount and fix in position
- ❑ Install : To erect, connect up and commission, complete with related accessories
- ❑ Indicated shown, Noted : As indicated or shown on drawings
- ❑ Approved, Alternative : Approved in writing by the Consulting Electrical Engineers
- ❑ Similar, Equal : Equal or better in efficiency of performance and compatibility

2.10 CONFLICT BETWEEN SPECIFICATIONS, SCHEDULE OF QUANTITIES AND DRAWINGS

Should there be conflict between the Project Specifications, Schedule of Quantities, Drawings and / or Standard Technical Specifications, the sections shall be considered in the following order of priority :

- ❑ Project Specifications
- ❑ Schedule of Quantities
- ❑ Drawings
- ❑ Standard Technical Specifications

Should the Electrical Sub-contractor note an inconsistency between the Project Specifications, Schedule of Quantities, Drawings and / or Standard Technical Specifications, he shall notify the Consulting Electrical Engineers immediately and obtain clarification or instructions prior to ordering or installing equipment.

2.11 DEVIATIONS FROM TENDER DOCUMENTS

No deviations or alterations from that of the specification, schedules or drawings shall be made without first obtaining the written approval of the Department.

2.12 DRAWINGS

Refer to the Drawing Schedule for the list of drawings relating to this Tender Document.

At no time is the Electrical Sub-contractor to scale drawings or to make any assumptions regarding measurements / dimensions. If in doubt, the Electrical Sub-contractor is to obtain clarification from the Consulting Electrical Engineers.

2.13 MOVING OF EQUIPMENT

The Electrical Sub-contractor shall investigate each space through which equipment must be moved. Where necessary, equipment shall be transported in sections of size suitable for moving through spaces available.

2.14 MISCELLANEOUS

2.14.1 Labels

Labels shall be installed as required in terms of the relevant codes of practice and as further specified in this Tender Document.

All labels shall be in English with capital letters, in black and on a white background, and a minimum of 4 mm in height. All labels shall be of ivorine or plastic construction and riveted / screwed in place.

2.14.2 Safety Signage

The Electrical Sub-contractor shall supply and install all danger, sub-station and safety notices and signs in terms of the relevant regulations.

All safety signage installed shall be in accordance with SABS 1186.

2.15 INSTALLATION DRAWINGS

Drawings shall be submitted in triplicate as soon as possible after the signing of the Sub-contract Agreement, but in ample time to allow the Consulting Electrical Engineers to examine and approve before equipment manufacture is started, or material delivered to site.

Should the Consulting Electrical Engineers require that any drawing be amended, the Electrical Sub-contractor shall make the necessary alterations and re-submit the drawing within two weeks.

The Electrical Sub-contractor shall provide the Principal Contractor and the Consulting Electrical Engineers with complete layout, installation and shop drawings, together with any necessary descriptions and specifications. Sufficient details shall be given to permit a full appraisal of all parts of the installation and their relation to the building structure.

Drawings shall give full details of all foundations, ducts, chases, pits and openings and shall set out all lines and levels for the work.

Delays caused by the submission of drawings or by an error, omission or inadequacy in these drawings, shall not be considered a reason for an extension of the Sub-contract time.

2.16 PAYMENT VALUATIONS

The Electrical Sub-contractor shall be entitled to submit monthly payment claims to the Principal Contractor. The payment claims are to be submitted to the Consulting Electrical Engineers for approval and recommendation, prior to submission to the Principal Contractor.

The payment claim shall be in the form of a copy of the Schedule of Quantities, indicating the tendered, claimed (supplied, installed and materials on / off site) and anticipated completion quantities, rates and values.

2.17 VARIATION ORDERS

Variations orders shall be ordered and processed either by the issue of a revised drawing or by issue of a site instruction, by a duly authorised person.

The Electrical Sub-contractor shall ensure that the above procedures have been followed prior to carrying out any work. Failure to comply may invalidate any claim for work done.

Unless otherwise agreed with the Consulting Electrical Engineers, all claims for variation orders shall be approved prior to proceeding with the relevant Works. The Electrical Sub-contractor shall submit variation order claims to the Consulting Electrical Engineers for approval with the preceding monthly payment claim.

However, the Electrical Sub-contractor shall only include the value of approved variation orders in any payment claim or invoice, once approved in writing by the Consulting Electrical Engineers. Variation order claims, which have not been approved, but are included in the monthly payment claim, will be deducted from the payment claim in question.

2.18 ACCEPTANCE, TESTING AND COMMISSIONING

The Electrical Sub-contractor shall carry out all tests required in terms of the relevant Acts, SABS Codes of Practice and Local Authority requirements. The Electrical Sub-contractor shall provide all the equipment and apparatus required for the purpose of carrying out all necessary tests.

The Electrical Sub-contractor is responsible for carrying out all necessary tests and obtaining all necessary certificates for the installation and operation of the plant.

If any part of the Works fails the test, the Electrical Sub-contractor shall be responsible for rectifying, at his own cost, the defective Works and the re-testing thereof to ensure compliance. If in consequence, the Consulting Electrical Engineers are obliged to attend the further acceptance tests the additional costs incurred by the Consulting Electrical Engineers shall be payable by the Electrical Sub-contractor.

The Works shall be deemed to be practically complete only when the Consulting Electrical Engineers has approved all tests and inspections, and a Completion Advice Notice or other relevant completion notice is issued.

2.19 COMPULSORY FORMS AND CERTIFICATES

The Electrical Sub-contractor shall submit the necessary commencement, compliance and completion forms for the installation as required in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended, the relevant SABS Specifications and the requirements of the relevant Supply Authorities.

2.20 OPERATING INSTRUCTIONS, MAINTENANCE MANUALS AND RECORD DRAWINGS

The Electrical Sub-contractor shall supply, after approval by the Consulting Electrical Engineers, three (3) bound sets of operating instructions, maintenance manuals and record drawings for the complete mechanical engineering services installation.

2.20.1 Operating Instructions and Maintenance Manual

Failure to submit these manuals will result in the delay of the final inspection and acceptance of the Works by the Client.

The manuals shall be prepared within the Contract, and shall be particular to the project. All charges that may be required by manufacturers' suppliers for the provision of information and literature shall be included in the contract price.

The manual shall be arranged with an index and referencing system and a matching flysheet giving the names and address of principals involved on the project.

The covers shall be hardbound with a four-post loose-leaf system. The Contract details shall be embossed on the front cover. Numbered card dividers shall be inserted between the sections.

The format of the manual shall be in accordance with the following sections, after a preface and index. Any other data considered by the Client to be pertinent shall also be included.

Section 1

This shall comprise the introduction, abbreviations, and any warnings that may be required by the Machinery and Occupational Safety Act, Local Authorities, and other bodies.

Section 2

A full description of each system, together with the main plant components and locations, plus the mode of operation of automatic control systems associated with such system shall be reflected in this section.

Section 3

This shall comprise the complete plant technical data of each item of control equipment (e.g. manufacturer's name and address, type of unit, serial number. This information shall be derived from a site inspection of identification plates together with information obtained from manufacturers.

Section 4

This section shall describe in detail the operating procedures necessary for starting up, running, and shutting down each individual system. This shall include the control panel starter and selection facilities together with any alarm and safety interlocks as identified on the control panel.

Section 5

This shall comprise the maintenance operations on a daily, weekly, monthly etc. basis for each item of plant. The preparation of this section shall be carried out by obtaining from the manufacturer his advice and recommendations for lubrication, adjustment and routine maintenance.

Section 6

This section shall comprise the emergency procedures to be adopted by personnel engaged on the operation and maintenance of the electrical and mechanical services with regard to fire, first aid, general failures, and call-out procedures during working hours and out of working hours.

Section 7

A recommended action on plant malfunction shall be detailed in this section. This is to assist both the user and maintenance engineer in the event of a fault developing in a system by indicating the nature of the fault and the recommended action.

Section 8

This shall comprise a list of recommended spares. The preparation of this section shall be carried out by obtaining the manufacturer's recommendations and also incorporate the Client's requirements regarding spares.

Section 9

A schedule of the record drawings or 'as-built' drawings for the new control systems shall be inserted in numerical order in this section. The drawings shall be bound into the manual.

Section 10

This section shall comprise test certificates and commissioning reports. It shall include reset schedules and temperature and pressure set points clearly for each item of control equipment.

Section 11

This shall comprise the manufacturers' literature, arranged in alphabetical order to match the list of manufacturers.

The names of the manufacturers (or their local representatives), addresses, and telephone numbers shall also be given.

2.20.2 Record Drawings

A complete set of floor plans, in hard copy format, will be issued to the Air-conditioning and Ventilation Sub-contractor, for preparation of Record Drawings.

The Electrical Sub-contractor shall prepare Record Drawings of the complete mechanical engineering services installation and return same to Consulting Electrical Engineers.

2.21 DEFECTS LIABILITY PERIOD

The defects liability period shall be three (3) months, which shall commence with the issue of the Works Completion Certificate (or Completion Advice Notice) in respect of the fully commissioned Works, by the Consulting Electrical Engineers.

With effect from the date of the Works Completion Certificate, and for the duration of the defect's liability period, the Electrical Sub-contractor shall be responsible for all routine inspections, services and maintenance-related tasks that are specified for each component of the installation by the relevant Manufacturer / Supplier.

Furthermore, the Electrical Sub-contractor shall be responsible for the carrying out of the following inspections, services and maintenance-related tasks, namely :

- ☐ Test the incoming voltages and determine whether they are within normal parameters
- ☐ Check all switchgear within the respective electrical distribution board
- ☐ Test all earth leakage units
- ☐ Test all socket outlets circuits i.e. one socket outlet per circuit to be tested in terms of correct earth leakage operation
- ☐ Test all light switches and determine whether all light fittings are operating correctly
- ☐ Test all photo-electrical daylight switches to ensure their correct operation
- ☐ Check all isolators to ensure correct operation
- ☐ Carry out a visual inspection of complete electrical installation to ensure that all electrical fittings are still in place, covers fitted properly, etc.

We understand the maintenance to be undertaken on the uninterruptible power supply set during the defects liability period to be based on and include (but not be limited to) the following, namely :

- ☐ check control switches and test on bypass
- ☐ check parameters of control board
- ☐ tested and inspection of all fans and filters
- ☐ check fuses
- ☐ check machines for common errors
- ☐ load tested to be actioned and battery life cycles to be calculated
- ☐ banks of batteries to be tested and replaced if necessary

The Electrical Sub-contractor shall ensure that the inspections, services and maintenance-related tasks are undertaken at intervals not greater than three months.

The Electrical Sub-contractor shall ensure that each inspection, service and / or maintenance-related task is undertaken in the presence of a representative of either the Consulting Electrical Engineers or the Client.

The Electrical Sub-contractor shall ensure that the necessary documentation is completed and submitted to the Consulting Electrical Engineers confirming the completion of the relevant tasks after every each inspection, service and / or maintenance-related task milestone.

The Electrical Sub-contractor shall also timeously attend to any defects, which may occur through the normal operation of the Works.

If, during the defects liability period, the installation is not in working order for any reason for which the Electrical Sub-contractor is responsible, or if the installation develops defects, he shall immediately upon being notified thereof take steps to remedy the defects and make any necessary adjustments.

Should such stoppages however be so frequent as to become troublesome, or should the installations otherwise prove unsatisfactory during the said period the Electrical Sub-contractor shall, if called upon by the Consulting Electrical Engineers, at his own expense replace the whole of the installations or such parts thereof as the Consulting Electrical Engineers may deem necessary with apparatus specified by the Consulting Electrical Engineers.

The Electrical Sub-contractor shall also timeously attend to any defects, which may occur through the normal operation of the Works.

Upon completion of the maintenance period, the Consulting Electrical Engineers shall undertake a final inspection and hand-over of the Works to the Client.

2.22 DETAILED SCHEDULE OF WORK

2.22.1.1 Bulk Electricity Service Connection

The Local Supply Authority is Eskom (Southern Region).

The existing bulk electricity service connection is a 100A, 400V, 70kVA supply.

The existing bulk electricity service connection has sufficient spare capacity to accommodate the proposed Works, and will therefore, not be upgraded.

2.22.2 Low Voltage Reticulation

2.22.2.1 Existing Main Low Voltage Panel / Sub-electrical Distribution Board

The existing main low voltage panel is equipped with the electrical circuitry and switchgear necessary for the provision of the normal electricity supplies to the exiting areas. New sub-electrical distribution boards will be installed in the areas being refurbished which has additions thereto and for the fitment of normal, essential and critical Systems.

2.22.2.2 Existing Electrical Reticulation and Distribution Cables

Existing electricity feeder cables from the existing Municipal Connection to respective main low voltage panel shall remain under this project. New feeder / connection cables will be installed to cater for the additional distribution board that will be added.

Where applicable, electricity feeder cables shall be Cu PVC PVC SWA ECC PVC cables, with stranded conductors.

The storage, transportation, handling and laying of the cables shall be according to first class practice, and the Electrical Sub-contractor shall have adequate and suitable equipment and labour to ensure that no damage is done to cables during such operations.

All low voltage reticulation cables shall have been manufactured to SABS 1507 - 1990 and shall have stranded copper conductors with PVC insulation, PVC bedding, steel wire armouring and PVC sheathing.

No jointing of the low voltage reticulation cables will be allowed, without the prior consent and approval of the Consulting Electrical Engineers.

The low voltage reticulation cable lengths as indicated in the Schedule of Quantities are for tendering purposes only. The Electrical Sub-contractor shall be responsible for the taking of on-site (point-to-point) measurements, including allowances for tails and the making-off of the cables, before the placing of orders (and cutting of cables). Payment will only be made for the actual length installed.

Cables shall be fitted with suitable flameproof identification labels at both ends and at appropriate, intermediate positions. The labels shall bear the identification of the boards of origin and destination.

The low voltage reticulation cable and (where applicable) cable tray installation routes shall, where possible, follow the indicated routes. The Consulting Electrical Engineers should be notified immediately should any deviations to the routes be required.

The cable installation shall be co-ordinated with the other services i.e. water pipes, etc. The Electrical Sub-contractor shall timeously notify the Consulting Electrical Engineers of any clashing of services i.e. electrical cables and water pipes installed in close proximity to each other, etc.

The laying of cables shall not be commenced until the trenches, ducts, wiring ducts, cable trays or cable ladders have been inspected and approved. The cable shall be removed from the drum in such a way that no twisting, tension or mechanical damage is caused and must be adequately supported at intervals during the whole operation. Particular care must be exercised where it is necessary to draw cables through pipes and ducts to avoid abrasion, elongation or distortion of any kind. The ends of such pipes and ducts shall be sealed to approval after drawing in of the cables.

Where cables are cut and not immediately made off, the ends are to be sealed.

On each completed section of the laid cable, the insulation resistance shall be tested to approval with an approved "Megger" type instrument of not less than 500 V for low voltage cables.

The Electrical Sub-contractor shall be responsible for the supply and installation of all ducts, wiring ducts, cable trays or cable ladders, including all necessary suspension brackets and fixing materials, as is necessary for the low voltage reticulation installation.

2.22.3 Builder's and Related Works

The Electrical Sub-contractor shall be responsible for the necessary co-ordination and timing of the builder's and related Works pertaining to this Sub-contract.

2.22.4 Trench Excavations

(where applicable)

The Electrical Sub-contractor shall undertake all trench excavations, including backfilling and compaction, required for the electrical engineering services, as indicated on the attached drawings.

The trench excavation routes should not differ from that indicated on the attached drawings.

Where possible, all routes should be either parallel or perpendicular to the nearest building and / or structure, maintaining a minimum distance of 0.5 m from the edge of the foundation of the boundary wall and or building walls.

The Consulting Electrical Engineers should be notified immediately should any deviations to the routes be required.

The cable-trenches shall be excavated to a depth of 0.8 m deep below ground level and shall be 500 mm wide for one to three cables, and the width shall be increased where more than three cables are laid together so that the cables may be placed at least two cable diameters apart throughout the run.

The bottom of the trench shall be level and clean and the bottom and sides free from rocks or stones liable to cause damage to the cable.

The Electrical Sub-contractor must take all necessary precautions to prevent the trenching work being in any way a hazard to the personnel and public and to safeguard all structures, roads, sewage works or other property on the site from any risk of subsidence and damage.

In the trenches the cables shall be laid on a 75 mm thick bed of earth and be covered with a 150 mm layer of earth before the trench is filled in.

Trenches are to be backfilled and consolidated in stages (150 mm intervals) to prevent subsequent subsidence.

Backfilling (after bedding) of the trenches is to be carried out with a proper grading of the material to ensure settling without voids, and the material is to be tamped down after the addition of every 150 mm. The surface is to be made good as required.

All compactions shall be to Mpa density of 93% AASHTO density.

Any subsidence, either during the construction period, or the guarantee period, shall be remedied.

The backfilling of all post-mounted, or similar, luminaires shall be done with a 10 : 1 sand / cement mix.

2.22.5 Brick-built Enclosures (Manholes) and Concrete Plinths*(where applicable)*

The Electrical Sub-contractor shall be responsible for the provision of the brick-built enclosures (manholes) and concrete plinths, as indicated on the attached drawings.

*Brick-built Enclosures (Manholes)**(where applicable)*

The manholes shall be of the dimensions indicated on the attached drawings.

Unless otherwise indicated, the manholes shall be constructed on a mass concrete Class D base, 150 mm thick and projecting 150 mm all way round, and comprise two-brick thick walls, plastered internally, and fitted with a 600 mm diameter, heavy duty, Type 8UA frame and lid.

The Electrical Sub-contractor is to ensure that all manholes are waterproofed and equipped with the size and number of ducts indicated on the attached drawings.

*Concrete Plinths**(where applicable)*

A concrete plinth will be required for the placement of the miniature substation. Once the miniature substation has been procured, the Electrical Sub-contractor shall ensure that the Miniature Substation Manufacturer submits all necessary general arrangements drawings for approval. The concrete plinth requirement w.r.t. dimensions, shall be confirmed thereafter.

In general, the plinth shall be constructed on a mass concrete Class D base, 150 mm thick and projecting 150 mm all way round, with the necessary reinforcing steel / mesh.

The Electrical Sub-contractor is to ensure that the concrete plinth is equipped with the size and number of ducts indicated on the attached drawings.

2.22.6 Ducts*(where applicable)*

The Electrical Sub-contractor shall be responsible for the provision of the ducts, as indicated on the attached drawings. In summary, ducts shall be installed beneath (across) all walkways, driveways, and finished surfaces.

The ducts shall be manufactured from a high-density polyethylene with a double wall construction, allowing a corrugated outer wall finish and a smooth inner wall finish, and of the internal diameters as indicated on the attached drawings.

Where cables cross under roadways, other services and where cables enter buildings, the cables shall be installed in high-density polyethylene pipes.

The ends of all ducts shall be sealed with a non-hardening watertight compound after the installation of cables. All ducts intended for future use shall be sealed.

2.22.7.1 Standby Generator Set Installation

A new prime, diesel-driven generator unit shall be provided under this Sub-contract. The following specification to be used to price the schedule of quantities:

General

Continuous Rating	:	80 kVA (prime power) @ 0.8 p.f.	
Rated Output	:	420 V @ 50 Hz	
Nominal Speed	:	1 500 rpm	
Type (and Enclosure)	:	Diesel-driven Prime power generator set, complete with soundproof and weatherproof, epoxy-powder coated 3CR12 enclosure, continuously rated, with specified automatic mains failure equipment	
Finish	:	All engine, alternator and control panel components to be primed and painted with an epoxy powder coating (Stone Grey, colour RAL 7030)	
Site Conditions	Altitude	:	Approximately 66 meters

Average Temperature	:	The average midday temperatures for Makhanda range from 20 °C in July to 26 °C in February. The region is the coldest during July when the mercury drops to 9.3 °C on average during the night
Lightning Ground Flash Density	:	2.0 (to SABS 03 - 1985)
Location	:	Installed on a concrete plinth
Operation and Maintenance Manuals	:	Operation and Maintenance Manuals shall include (but not be limited to) a complete schematic diagram of the generator set's operation and control circuitry
Type	:	Water-cooled
Alternator / Engine Coupling	:	Direct
Base	:	Mild steel skid frame (to SANS 763), painted with an epoxy powder coating (black), with anti-vibration mountings
Fuel Tank	Type and Capacity	: Base-mounted integral 3CR12 fuel tank, sized to accommodate sufficient fuel to operate at 100% load for 12 hours, but not less than 400 litres (<i>proof of calculation to be submitted with tender documentation</i>)
		: Upon final positioning of the generator set, the fuel tank is to be filled with appropriate fuel
Fuel Tank	Accessories	: Level indicator, calibrated in litres
		: Filler cap
		: Drain plug
		: Low level alarm (@ 25%)
		: Interconnecting hoses
		: Electrically-operated fuel filling pump (for re-filling purposes)
Starting	:	12 V dc
Battery	:	12 V maintenance free, housed within the generator enclosure, with a galvanised frame, painted with an epoxy powder coating (black)
Radiator	:	Integral, with generator set
Engine Supervisory Equipment	:	High temperature alarm / shutdown
	:	Low oil level alarm / shutdown
	:	Over / under speed alarm / shutdown
	:	Low level fuel alarm / shutdown
	:	Start failure alarm (after three attempts)
	:	All alarms to be provided with potential free contacts, terminated in a common row of terminal blocks for interfacing with remote supervisory equipment)
	:	One alarm hooter and red light shall be supplied and installed on the outside of the generator enclosure. The hooter shall be an electronic unit similar and equal to a "Klaxon" "SY2/725" hooter with a continuously rated output of 110 dB at a distance of 2 metres, and shall be IP55 weatherproof rated. The warning light shall consist of a 40 W flashing red light. The hooter and light shall be switched on or off simultaneously after initiation or cancellation of an alarm condition. The hooter control circuit is to reset automatically after cancellation due to a low fuel condition or battery charger failure, but the visible fault indication must remain, i.e. should the operator continue to run the set, the hooter must sound, should any other condition develop.
Exhaust	:	Base mounted with 3CR12 flexible piping and silencer, suitable for operation within a residential environment
	:	Exhaust system to be complete with all necessary suspension / mounting brackets
Exhaust Emissions	:	To be in accordance with the European Union (EU) Tier 2 exhaust emission regulations

Water Jacket Heating	:	Required to automatically maintain engine block temperature
Extraction Fan	:	Not applicable
Enclosure	:	Drip-proof
Rating	:	3 phase, to suit specified power output, under site conditions
Type	:	Brushless
Insulation Class	:	F
Maximum Frequency Variation of AMF Unit	:	2.5 %
Transient Voltage Dip of AMF Unit (@ full load):	:	15 %
Voltage recovery of AMF unit (@ full load)	:	300 mS
Controller	:	One required, to monitor supply under-voltage and / or supply over-voltage and / or supply voltage phase failure, and to provide remote display of "Mains Supply Failure" and "AMF Plant Operational" (All alarms to be provided with potential free contacts, terminated in a common row of terminal blocks for interfacing with remote supervisory equipment)
Change-over Contactors	:	Mechanically and electrically interlocked to suit the specified output current at AC3 continuous rating
Type	:	Integral type panel
	:	Panel fabricated from 2 mm 3CR12 and to comply with specifications for electrical distribution boards
Fault Level	:	15 kA
Instrumentation		
	Ammeters	: 3 x 125 A thermal maximum demand ammeters on low voltage main circuit to sit AMF Unit rating
	Voltmeter	: One 0-500 V voltmeter, with voltage selector switch and 4 no. 2 A fuses
	Power Factor	: One required
	Frequency Meter	: One required
	Power Meter	: Alternatively, a "power meter" may be installed for the purposes of monitoring the current, voltage, power factor and frequency in lieu of the separate devices mentioned above
	Hour Run Meter	: One required
	Battery Charge Ammeter	: One required
	Battery Voltmeter	: One required, with test push button
Circuit Breakers		
		: 1 no. triple pole to protect alternator
		: 1 no. triple pole to (125 A, curve 1) as outgoing circuit
		: 1 no. 10 A single pole for water jacket heater (or, as required)
		: 1 no. 10 A single pole for battery charger (or, as required)
		: 1 no. 5 A single pole for control circuit (or, as required)
		: Others as may be required for operation of generator set
Battery Charger		: One required, with auto boost / float voltage charge control to suit local starting and control requirements
Mode Selector Switch		
		: "Off" - all circuits isolated
		: "Manual" - push button start of engine for maintenance purposes, but no automatic change-over operation in the event of mains failure
		: "Test" - push button start of engine for maintenance purposes, but allows automatic change-over operation in the event of mains failure
		: "Auto" - automatic starting and stopping of AMF plant, dependent on the main supply voltage condition

Shutdown Delay Timer	:	Required to delay AMF shutdown by up to two minutes (adjustable) in the “auto” mode, upon restoration of the mains supply voltage
Weekly Operation	:	The generator set shall be programmed to automatically start and run off-load for 15 minutes at weekly intervals (a convenient time must be determined in conjunction with the Client)
Telecommunications	:	A GSM module, complete with sim card and related facilities, shall be allowed for the transmission of generator status and alarm conditions via SMS to a pre-determined set of cellular phone numbers

Generator Control and Operation

The control of the new diesel-driven generator set shall be by means of the protection, control and automatic mains failure equipment housed within the new main low voltage panel.

A provisional sum has been allowed within the Schedules of Quantities for the employment of a Specialist Service Provider to undertake the testing of the new diesel-driven generator sets, by means of simulating normal and power failure conditions so as to ensure the correct and proper operation of all distribution, control and protection and automatic mains failure systems.

Generator Enclosure

The Principal Contractor shall construct the concrete plinths, bunded areas and covered structures necessary for the housing of the new standby diesel-driven generator sets.

Maintenance, Warranty and servicing

The first 4 services will be carried out quarterly / every 250hours whichever occurs first. These 4 services will be priced into the Tender. We would advise the Client then sign a maintenance contract with the supplier in order to maintain and keep the unit operational.

2.22.8.1 Hybrid Solar Installation

A new Grid-hybrid photovoltaic system shall be provided under this Sub-contract.

The Grid-hybrid photovoltaic system allows real-time, self-consumption of the photovoltaic power “harvested” which results in a reduction of the overall energy-related operational costs. These systems do provide a back-up source of electricity in that should there be a failure or an outage of the conventional electricity source, these photovoltaic systems automatically disconnect grid and switch to batteries and/or rooftop solar panels in order to carry the load. These systems are able to feed excess “harvested” photovoltaic power back into the Local Supply Authority’s electricity network. However, the present laws and regulations prohibit “feeding back” into the Local Supply Authority’s electricity network.

It is anticipated that the photovoltaic system would be a rooftop-mounted system on one or more of the buildings, with all associated switchgear positioned within one or more rooms within the buildings as indicated on the drawings.

We shall integrate the new correctly sized generator unit into the hybrid solar system as “last resort” start up and take load when batteries are depleted. The system load demand setup will be in the following order during a power outage/load shedding.

Rooftop mounted solar panels (JA solar, Canadian Solar, Jinko or similar approved) (150 off Panels)

Generally, this photovoltaic system will comprise the rooftop-mounted photovoltaic $\pm 550\text{W}$ panels (mounted in arrays complete with mounting brackets and structures). The Panels to be $\pm 550\text{W}$ tier 1, 0.5C Monocrystalline silicon half cell with the following minimum values:

Voltage at Pmax(Vmp) 41.97 V
Current at Pmax (imp) 13.11 A

Open-Circuit Voltage(Voc) 49.95 V
 Short-Circuit Current (Isc) 14.05 A
 Efficiency (%) 21.30

Hybrid Inverter (All in one) (Atess or similar approved)

This system will be 150kW Hybrid three phase inverter (with DC protection switchgear), metering equipment and a monitoring station (with operating licence). The following specification to be used to price the schedule of quantities:

All-in-one hybrid inverter	-	Battery, load, grid, solar connection all supported
Programmable working mode	-	Peak-shaving, back-up, use the system however you want it
Scalable design	-	Quadruple capacity by paralleling 4 units
Hot back-up	-	One inverter fails in parallel system, the other(s) takes over seamlessly.
Touchscreen LCD	-	More convenient for parameter setting and maintenance
Seamless transfer	-	Uninterruptable power supply guaranteed
Dry contact output	-	Supports remote control of DG

Hybrid Inverter General Information

Protection Range	-	IP20
Noise Emission	-	<65dB(A)@1m
Operation Temperature	-	-25°C - +55°C
Cooling Method	-	Forced-Air
Weight	-	1230kg
Build In Transformer	-	Yes
Lightning Protection	-	Type II
Transfer between on/off grid	-	Automatic ≤ 10ms

AC (On grid)

Apparent power	-	165kVA
Rated Power	-	150kW
Rated Voltage	-	400V
Rated Current	-	217A
Voltage Range	-	360V-440V
Rated Frequency	-	50/60Hz
Power Factor	-	0.8 Lagging – 0.8 Leading
AC input	-	240kVA

AC (Off-grid)

Apparent power	-	165kVA
Rated Power	-	150kW
Rated Voltage	-	400V
Rated Current	-	217A
Overload Capacity	-	110% (10min) / 120% (1min)

Lithium-Ion Battery (Atess Rack module / Freedom one Business)

This battery will be at least 300kWh three phase Lithium-ion battery (with DC protection switchgear), metering equipment and a monitoring station (with operating licence). The following specification to be used to price the schedule of quantities:

Easy installation and maintenance	-	Local and remote management, standard rack&module design, front maintenance
Safety first	-	Self-developed 3-level BMS, complex protection, safe and reliable
High density	-	LFP high-capacity Li-Ion battery with aluminium shell, over 130wh/kg
Long lifespan	-	Long cycle life, 6000 cycles

Battery Module Specification

Rated Capacity	-	280 Ah
Rated Energy	-	14336 kWh
Rated Voltage	-	51.2V
Voltage range	-	44.8 – 57.6V
Rated discharge / Charge	-	0.5C
AC internal resistance	-	≤8mΩ
Weight	-	113kg

Battery Rack Specification

Configuration	-	22 Modules + 1 BPU
Rated Capacity	-	280Ah
Rated Energy	-	300.704 kWh
Rated Voltage	-	716.8V
Voltage range	-	627.2V – 806.4V
Rated discharge / Charge	-	0.5C
AC internal resistance	-	≤112mΩ
Weight	-	1737kg
Display	-	7” Touch Screen
BMS	-	Included
Communication	-	CAN

Battery Minimum Protection to include:

Short Circuit Protection
 Over Current Protection
 Over Charge Protection
 Over Discharge Protection
 Cell Over Voltage Protection
 Over Temperature Protection
 Cell Under Voltage Protection

DC wiring

Flexible tin plated copper class 5 CEI EN 60228, LSOH Rubber compound type G21, LSOH Rubber Compound type M21. Single core cables, for photovoltaic and solar system use, elastomeric compound insulated and sheathed. Flame retardant, halogen free, and a low smoke flexible cables for fixed laying, lifetime testing 20.000h/120°C

Minimum of 6mm DC cable to be used. Cable to be supported and installed in dedicated conduit and / or dedicated cable tray.

The following specification to be used to price the schedule of quantities:

Voltage Rating	-	1800 Volts
Temperature Range	-	DC -40° to +90°C
Bending Radius	-	4 x Diameter of cable
Flexibility Class	-	5
Conductor Type	-	Flexible tin plated/Copper class- 5 CEI EN 60228
Insulation Material	-	LSOH Rubber Compound
Sheath Material	-	LSOH Rubber Compound
Sheath Colours	-	Black, Red
Spark Test	-	6000 Vac (8400 Vdc)

General

AC/DC Distribution Boards with Type II Surge protectors (Schnider or similar approved) and fuses Surge protection and fuses to be installed for each string inside the distribution board.
 Circuit breakers to be ABB / Schnider or similar approved.

Earthing of all panels to be grounded with at least 1 earth spike per string and / or 20 panels. Earth bar to also be installed inside room where panels and inverters are installed connected to common earth and all equipment to be bonded and earthed.

Maintenance, Warranty and servicing

The Inverter and batteries generally have a minimum 10-year warranty. The solar panels generally have a 25-year warranty. The first year of monitoring and servicing of the equipment will be included into the tender. We would advise the Client then sign a maintenance contract with the supplier in order to maintain and keep the unit operational.

2.22.9 Electrical Distribution Boards

Single line diagram drawings have been included on the drawing list. They are to be priced by the respective distribution board manufacturer. Each distribution board to be priced in the Schedules of Quantities.

Where applicable, the electrical distribution boards are to be manufactured by a reputable company, with relevant experience in the manufacturing of electrical distribution boards, control panels, etc. Approval of the manufacturing company should be obtained from the Consulting Electrical Engineers prior to the placing of any orders / commencement of Works.

Detailed wiring diagrams and shop (manufacturing) drawings of the proposed electrical distribution board is to be submitted to the Consulting Electrical Engineers for approval, prior to manufacture.

Approval of the wiring diagrams and shop (manufacturing) drawings by the Consulting Electrical Engineers does not remove any responsibility from the Electrical Sub-contractor to ensure the completeness and compliance of the distribution board.

The Electrical Sub-contractor shall ensure that the electrical distribution boards are constructed to fit into the space provided, that sufficient space is allowed for the cable ends and termination thereof and that each board is provided with an architrave and a hinged lockable door. The electrical distribution board shall be a protection rating of no less than IP55.

All gland plates, as well as top or side plates used for the termination of cables shall be easily removable to facilitate the drilling and punching of holes. Panels (fascia) and cover plates are to be fixed to the framework by means of “Quicklock” or other similar captive fasteners. Self-tapping screws or dome nuts will not be accepted. Panels (fascia) and cover plates are to be fitted with chrome plated handles to facilitate removal.

Where applicable, the outer and inner frames and front panels of the respective sections shall be painted in the following distinctive colours, namely :

❑	Frame (Outer and Inner)	-	White	-	RAL 9010 (Pure White)
❑	Normal	-	White	-	RAL 9010 (Pure White)
❑	Essential	-	Orange	-	RAL 2004 (Pure Orange)
❑	Critical	-	Red	-	RAL 3020 (Traffic Red)
❑	Photovoltaic	-	Green	-	RAL 6037 (Pure Green)
❑	Un-interruptible	-	Blue	-	RAL 5005 (Signal Blue)

Each section of the distribution board shall be provided with a legend cardholder with a clear perspex front. Each circuit breaker shall be clearly numbered in accordance with the single line diagrams. Corresponding numbers and circuit descriptions shall be clearly typed on the legend cards.

All main switches shall be clearly marked “MAIN SWITCH” and the necessary warning labels are to be installed at the switch. Each distribution board shall have sufficient ways for each circuit neutral and each circuit earth wire. Doubling up of circuits w.r.t terminations will not be accepted.

Particular note shall be taken of the fault current requirements of each electrical distribution board. Unless otherwise stated, electrical distribution boards shall be rated for a minimum fault current rating of 5 kA.

The following tests shall be carried out on the electrical distribution boards by the appointed Electrical Sub-contractor, prior to installation thereof, namely :

- ❑ high voltage test of 2 000 V, 50 Hz, tested for 1 minute per phase to earth (with remaining phases earthed)
- ❑ a 1 000 V Megger test on all insulated sections between phases and between phases and earth (resistance readings not to exceed 1 000 Mega ohms)
- ❑ full operational tests of all control circuits, relays and switchgear
- ❑ a trip test of all earth leakage relays, creating an earth fault on each of the protected circuits
- ❑ a current injection trip test on all main breakers to ensure that they trip at their set currents

Proof of these tests, and the results thereof, shall be issued to the Consulting Electrical Engineers for approval, prior to despatch of the electrical distribution boards to site.

2.22.10 Isolating Transformers

No isolating transformers shall be provided under this Sub-contract.

2.22.11 Insulation Monitoring and Earth Fault Current Limiters

No insulation monitoring and earth fault current limiters shall be provided under this Sub-contract.

2.22.12 Conduit and Conduit Accessories

All flush-mounted conduit and conduit accessories shall be PVC conduit in accordance with SABS 950.

All surface-mounted conduit and conduit accessories shall be galvanised conduit type, and manufactured in accordance with SANS 162, 763 and 1007 respectively.

The Electrical Sub-contractor shall ensure that conduit installation shall, wherever possible, be installed within the ceiling voids / roof space. Wherever necessary, the services shall be chased, or cast into, the concrete slabs and brick walls.

Should flush mounting not be practical (or possible), the Electrical Sub-contractor shall obtain prior approval from the Consulting Electrical Engineers, for the installation of surface mounted conduit and / or accessories. If approved, surface mounted conduits shall be installed using galvanised spacer brackets, allowing a clear space of 25 mm. Conduit accessories shall be mounted on similar brackets, ensuring an aesthetic installation.

2.22.13 Conductors

All low voltage single core conductors shall be of the PVC insulated type with stranded copper conductors, rated at 600 V general service duty and manufactured in accordance with SANS 1507 - 1990.

The colour coding for the PVC insulation shall be :

- ❑ red, white and blue for phases
- ❑ black for neutral
- ❑ green and / or yellow for earth

The Electrical Sub-contractor shall be allowed to utilise “twin and earth” or “surfix” type conductors.

Single core conductors shall only be installed within conduits, wiring ducts or channels. No single core conductors will be permitted in open channels, or on cable trays and / or cable ladders.

“Twin and earth” or “surfix” conductors shall only be installed within conduits, wiring ducts or channels, or on cable trays and / or cable ladders.

The drawing in of more than two circuits per conduit shall not be allowed.

2.22.14 Lighting Installation

Light outlet points shall be installed generally in positions as indicated on the construction drawings. They shall be as symmetrical as possible within the area in which they are fitted. Cognisance must be taken of the finishes and structural components to avoid clashes of services.

Ceiling mounted fluorescent fittings shall be secured to the concrete ceiling by means of expansion bolts, or “Hilti” fixings, and to the ceiling boards by means of galvanised “Butterfly” expansion nuts.

The Electrical Sub-contractor is to include in the Tender Price the provision of additional fixing materials, where needed.

Light switches shall be provided in the form of surface mounted outlets, flush mounted outlets, powerskirting, power pole or flush-floor / under-screed duct-mounted outlets, as indicated on the construction drawings.

Light switches shall be a fully modular system comprising a strong, universal steel support frame, an easy clip-on assembly and a white screwless cover plate i.e. Mosaic™ product range, or Lumex Clipsal S2000 series, or Crabtree Diamond Range, etc.

All light switches shall be of the same manufacture as the small and large power outlets, telecommunications and associated outlets.

Light switches, unless otherwise indicated, shall be installed at 1 400 mm AFFL, and shall be installed generally in positions as indicated on the construction drawings.

All lamp types shall be guaranteed for the full duration of the guarantee period and / or the stipulated lamp life, as stated by the Lamp Manufacturers, whichever is the greater.

Ballasts / control gear of fluorescent type fittings shall be of the electronic type, and shall bear the relevant SABS mark.

The Electrical Sub-contractor shall, upon completion of the Contract, issue to the Client, for their maintenance purposes, the spare lamps as specified in the Schedule of Quantities.

Photo-electric daylight switches shall be supplied and installed in accordance with Part 5 of this Tender Document.

2.22.15 Schedule of Luminaires

The following type of luminaires can be found on the attached drawings. These fittings have the following specification and should comply the following:

Type	: 1
Description	: Recessed LED flat panel luminaire
Dimensions	: 595 mm long x 595 wide mm x 12 mm deep
Housing	: Suitable for mounting within a recessed T-bar 600 mm long x 600 wide mm ceiling grid structure
Body	: Aluminium, white
Diffuser	: Highly effective, PMMA UGR diffuser with low glare qualities
Lamps	: Non-dimmable
	: High-powered, low energy consumption
	: 38 W, cool white, 5000 K, 80 CRI, Samsung, light emitting diode-type lamp
	: 150 lumens per Watt efficacy, 116 mA operating current
	: L70 working life (> 50000 hours)
Driver	: Non-dimmable
	: Tridonic
	: 220 VAC - 240 VAC input voltage
	: > 0.95 power factor
	: 100000 hours nominal life
	: Total harmonic distortion < 11%
	: Surge protection
	: EN 61347-2-13:2006 certification report
Emergency	: Not applicable
General	: 91 - 99 lumens per Watt efficacy
	: IP20 rating
	: 5 year warranty
	: SABS 60598-2 product certification

	: 0° C to + 40° C operating temperature range
	: 3 metre flexible cabtyre lead and 5 A socket
Type	: 2
Description	: Recessed LED flat panel luminaire
Dimensions	: 595 mm long x 595 wide mm x 12 mm deep
Housing	: Suitable for mounting within a recessed T-bar 600 mm long x 600 wide mm ceiling grid structure
Body	: Aluminium, white
Diffuser	: Highly effective, PMMA UGR diffuser with low glare qualities
Lamps	: Non-dimmable
	: High-powered, low energy consumption
	: 38 W, cool white, 5000 K, 80 CRI, Samsung, light emitting diode-type lamp
	: 150 lumens per Watt efficacy, 116 mA operating current
	: L70 working life (> 50000 hours)
Driver	: Non-dimmable
	: Tridonic
	: 220 VAC - 240 VAC input voltage
	: > 0.95 power factor
	: 100000 hours nominal life
	: Total harmonic distortion < 11%
	: Surge protection
	: EN 61347-2-13:2006 certification report
Emergency	: Battery backup facilities provided 20% for 1 hour
General	: 91 - 99 lumens per Watt efficacy
	: IP20 rating
	: 5 year warranty
	: SABS 60598-2 product certification
	: 0° C to + 40° C operating temperature range
	: 3 metre flexible cabtyre lead and 5 A socket
Type	: 3
Description	: Recessed LED flat panel luminaire
Dimensions	: 1195 mm long x 595 wide mm x 12 mm deep
Housing	: Suitable for mounting within a recessed T-bar 600 mm long x 600 wide mm ceiling grid structure
Body	: Aluminium, white
Diffuser	: Highly effective, PMMA UGR diffuser with low glare qualities
Lamps	: Non-dimmable
	: High-powered, low energy consumption
	: 60 W, cool white, 5000 K, 80 CRI, Samsung, light emitting diode-type lamp
	: 150 lumens per Watt efficacy, 116 mA operating current
	: L70 working life (> 50000 hours)
Driver	: Non-dimmable
	: Tridonic
	: 220 VAC - 240 VAC input voltage
	: > 0.95 power factor
	: 100000 hours nominal life
	: Total harmonic distortion < 11%
	: Surge protection
	: EN 61347-2-13:2006 certification report
Emergency	: Not applicable
General	: 91 - 99 lumens per Watt efficacy
	: IP20 rating
	: 5 year warranty
	: SABS 60598-2 product certification
	: 0° C to + 40° C operating temperature range
	: 3 metre flexible cabtyre lead and 5 A socket

Type	: 4
Description	: Recessed LED flat panel luminaire
Dimensions	: 1195 mm long x 595 wide mm x 12 mm deep
Housing	: Suitable for mounting within a recessed T-bar 600 mm long x 600 wide mm ceiling grid structure
Body	: Aluminium, white
Diffuser	: Highly effective, PMMA UGR diffuser with low glare qualities
Lamps	: Non-dimmable
	: High-powered, low energy consumption
	: 60 W, cool white, 5000 K, 80 CRI, Samsung, light emitting diode-type lamp
	: 150 lumens per Watt efficacy, 116 mA operating current
	: L70 working life (> 50000 hours)
Driver	: Non-dimmable
	: Tridonic
	: 220 VAC - 240 VAC input voltage
	: > 0.95 power factor
	: 100000 hours nominal life
	: Total harmonic distortion < 11%
	: Surge protection
	: EN 61347-2-13:2006 certification report
Emergency	: Battery backup facilities provided 20% for 1 hour
General	: 91 - 99 lumens per Watt efficacy
	: IP20 rating
	: 5 year warranty
	: SABS 60598-2 product certification
	: 0° C to + 40° C operating temperature range
	: 3 metre flexible cabtyre lead and 5 A socket

Type	: 5
Description	: Surface LED protected Dust, Moisture and corrosion proof luminaire
Dimensions	: 1200 mm long x 141 wide x 101 mm deep
Housing	: Suitable for surface mounting
Body	: Reinforced polyester, light grey RAL7035, with stainless steel fixings
Diffuser	: Highly effective, opal, PMMA UGR diffuser with low glare qualities
Lamps	: Non-dimmable
	: High-powered, low energy consumption
	: 53 W, cool white, 5700 K, 80 CRI, Osram Duris E5, light emitting diode-type lamp
	: 180 lumens per Watt efficacy, 350 mA operating current
	: L70 working life (> 50000 hours)
Driver	: Non-dimmable
	: Tridonic / Vossloh Schwabe
	: 110 VAC - 220 VAC input voltage
	: > 0.95 power factor
	: 100000 hours nominal life
	: Total harmonic distortion < 20%
	: Surge protection (2 kV)
	: EN 61317-2-13 certification reports
Emergency	: Not applicable
General	: 127 lumens per Watt efficacy
	: IP66 rating / 6J Impact resistance
	: 5 year warranty
	: SABS 60598-2 product certification
	: -20° C to + 25° C operating temperature range
	: Rear entry, compression gland

Type	: A
Description	: Recessed downlighter luminaire
Dimensions	: 110 mm diameter x 84 mm deep with 90 mm cut-out
Housing	: Suitable for recessed mounting
Body	: Die-cast aluminum, white

Diffuser	: Highly effective, opal, PMMA UGR diffuser with low glare qualities
Lamps	: Non-dimmable
	: High-powered, low energy consumption
	: 16 W, cool white, 5700 K, 80 CRI, Osram Duris E5, light emitting diode-type lamp
	: 180 lumens per Watt efficacy, 350 mA operating current
	: L70 working life (> 50000 hours)
Driver	: Non-dimmable
	: Tridonic / Vossloh Schwabe / TCI
	: 110 VAC - 230 VAC input voltage
	: > 0.95 power factor
	: > 50000 hours nominal life
	: Total harmonic distortion < 11%
	: Surge protection (2 kV)
	: EN 61317-2-13 certification reports
Emergency	: Not applicable
General	: 80 - 103 lumens per Watt efficacy
	: IP20 rating
	: 5 year warranty
	: SABS 60598-2 product certification
	: -20° C to + 40° C operating temperature range
Type	: B
Description	: Surface bulkhead luminaire
Dimensions	: 341 mm wide x 195 mm high x 105 mm deep
Housing	: Suitable for surface mounting
Body	: High pressure, die cast aluminium, epoxy polyester powder coated, black RAL9017 textured finish, finished both inside and outside, for added protection and reflectivity with raised mounting holes to prevent ingress of water Mounted to base by means of stainless steel M5 Allen head screws, with stainless steel heli-coil inserts
Diffuser	: Opal, high impact, non-colouring, acrylic diffuser, offering vandal resistant and highly translucent properties, fitted with tongue and groove silicon sponge gasket
Lamps	: Non-dimmable
	: High-powered, low energy consumption
	: 11 W, cool white, 4000 K, > 80 CRI, Osram Duris E5, light emitting diode-type lamp
	: 180 lumens per Watt efficacy, 0.05 A operating current
	: L70 working life (> 50000 hours)
Driver	: Non-dimmable
	: Tridonic / Vossloh Schwabe / TCI
	: 198 VAC - 264 VAC input voltage
	: > 0.95 power factor
	: > 50000 hours nominal life
	: Total harmonic distortion < 11%
	: Surge protection (2 kV)
	: EN 61317-2-13 certification reports
Emergency	: Not applicable
General	: 80 - 103 lumens per Watt efficacy
	: IP65 rating
	: 5 year warranty
	: SABS 60598-2 and SABS 1464 product certification
	: -20° C to + 35° C operating temperature range
	: All screws, bolts and metals shall be stainless steel or of an anti-corrosive material
	: Stainless steel heli-coil inserts to be fitted
Type	: EXIT
Description	: Surface exit signage (single-sided)
Dimensions	: 430 mm diameter x 215 mm high and 45 mm deep
Housing	: Suitable for surface mounting
Body	: Polycarbonate
Diffuser	: Perspex with green "Exit" test
Lamps	: Non-dimmable

	: High-powered, low energy consumption
	: 2 W, light emitting diode-type lamp
	: 150 mA charging current; 300 mA discharge current
Driver	: Non-dimmable
	: 230 VAC input voltage
Emergency	: 5 x 2 Ahr nickel-cadmium batteries providing 3 hours of operation
General	: 1 year warranty
	: SABS 60598-2 product certification
	: 0° C to + 70° C operating temperature range
Type	: C
General	: Modern high-performing type streetlight luminaire
	: The luminaire shall consist of an aluminium extrusion body and die cast aluminium ends supporting the heat dissipation and the light emitting diode fixation and shall be designed to operate up to 80 W of highest quality light emitting diodes
	: The luminaire shall bear the SANS 60598-2-3 safety mark
Ingress Protection	: The luminaires shall have a degree of protection that complies with SANS 60598-2-3 i.e. lamp compartment with IP66 and gear compartment with IP66 (ratings are to be certified by a SANS report)
Luminaire Housing	: The luminaire housing shall be robustly constructed, weather proof, hail proof, corrosion proof and vandal resistant, manufactured from corrosion-resistant aluminium
	: The front glass shall be mounted in a die cast aluminium frame and shall be held captive by two stainless steel screws, fastened to the housing
	: The gaskets sealing the top and bottom frames shall be made of silicon sponge.
Lamps	: The incorporated OSRAM 48 W, 5700 K light emitting diodes shall be of highest quality and designed to operate at least 50 000 hours at an ambient temperature of 35°C.
Spigot Base	: The spigot base is to be manufactured from high pressure, die-cast aluminium, powder coated for added protection and firmly secured to the pole by three M8 stainless steel grub screws
Diffuser	: The diffuser is to be manufactured from non-discolouring clear high impact acrylic
	: The diffuser is to be seamless and smooth on both the inside and outside
	: The diffuser is to have an extruded silicon gasket fitting over the bottom end and sealed against the spigot base
Components	: The control gear is to be incorporated inside the luminaire and mounted to a removable gear tray
	: All control gear is to be suitable for operation for operation on a 110 - 265 V, 50 Hz single phase system
	: All control gear components are to be removable and bear the relevant SANS mark
	: All internal wiring is to be Teflon coated, with protective sleeving to prevent damage by abrasion
	: The electrical connections are to be by means of a suitable screw terminal block with a wire clamping contact
	: All screws, nuts, bolts, etc. are to be stainless steel or of non-corrosive material
	: The luminaire shall be power factor corrected to a minimum of 0.90
Colour	: All powder coated components (grey)
Extras	: Luminaire shall bear SANS 1464 and SANS 60598-2-1 marks (minimum)

Where applicable, the mounting pole shall comply with the following, namely :

Construction	: 5.7 m fibreglass pole (5.0 m mounting height) constructed by a filament winding process, continuously applied with a uniform tension onto a rotating mandrel, providing a smooth, seamless and tapered surface
Finish	: Finishing coat in compliance with SANS 141, providing a weatherproof, UV-resistant and impact strong surface, K913 Mineral Grey
Facilities	: Access door manufactured from glass filled nylon impregnated, K913 Mineral Grey, held to pole with two stainless steel Allen head captive screws, with M4 brass inserts
Base Plate	: 300 x 300 x 6 mm hot dipped base plate, complete with 2 x hot dipped PVC steel hook bolts and nuts and flange plate to be bolted to a concrete foundation
Gland Plate	: Gland plate, manufactured from mild steel, suitable for No. 0 / 1 glands

Where applicable, the wall mounting bracket shall comply with the following, namely :

Construction	: Mild steel, with adequately-sized base plate and 450 mm long outreach arm
Finish	: Hot-dipped galvanised
Base Plate	: 300 x 300 x 6 mm hot dipped base plate, complete with pre-drilled bolt holes and cable entry facility
Spigot Connection	: Facility for connection onto luminaire's 42 mm diameter spigot base, complete with a spigot-leveling adaptor

The luminaire type and quantities has been allowed in the Schedules of Quantities for the supply, delivery to site, off-loading and safe storage on site, of all specified luminaires.

The appointed Luminaire Supplier (s) shall provide the necessary sample luminaires for approval by the Consulting Electrical Engineers and / or Client, prior to the placement of orders.

The Client may opt to provide the lamps necessary for the specified luminaires. If so, the appointed Electrical Sub-contractor shall facilitate the off-loading and safe storage thereof on site, for the duration of the project's construction stage.

2.22.16 Small and Large Power Installation

All small and large power outlet points shall be installed generally in positions as indicated on the construction drawings. They shall be as symmetrical as possible within the area in which they are fitted. Cognisance must be taken of the finishes and structural components to avoid clashes of services.

The Electrical Sub-contractor is to include in the Tender Price the provision of additional fixing materials, where needed.

Small and large power outlets shall be provided in the form of surface mounted outlets, flush mounted outlets, powerskirting, power pole or flush-floor / under-screed duct-mounted outlets, as indicated on the construction drawings.

Small and large power outlets shall be a fully modular system comprising a strong, universal steel support frame, an easy clip-on assembly and a white screwless cover plate i.e. Mosaic™ product range, or Lumex Clipsal S2000 series, or Crabtree Diamond Range, etc.

The surface and flush-mounted small and large power outlets shall be of the same type and manufacture as the power skirting, power pole, flush-floor / under-screed duct-mounted small and large power outlets.

All small and large power outlets shall be of the same manufacture as the light switches, telecommunications and associated outlets.

Small power outlet points shall be installed at 400 mm AFFL, unless otherwise indicated on the drawings.

Large power outlet points shall be installed at 1 400 mm AFFL, complete with a 50 mm diameter round conduit box at 300 mm AFFL and a conduit "link" in between, or as is necessary for the connection to the relevant electrical equipment.

Where applicable, small and large power outlets shall be colour-coded as follows :

- ☐ normal power outlets, white
- ☐ essential power outlets, red
- ☐ uninterruptible power outlets, blue

Where applicable, small power outlets shall be equipped as follows :

- ☐ normal power outlets, round earth pin
- ☐ essential power outlets, 0 degree shaven earth pin
- ☐ uninterruptible power outlets, 45 degree shaven earth pin

The Electrical Sub-contractor shall be responsible for the electrical connection of the items of specialised electrical equipment to be supplied and installed by Specialist Contractors i.e. hot water generation equipment, food preparation equipment, medical equipment, etc.

2.22.17 Power Skirting Installation

The power skirting, where applicable, shall be a fully modular system, manufactured from self-extinguishing polycarbonate, with a white finish i.e. DLP adaptable trunking range, as manufactured by Legrand Southern Africa, or the Jupiter range, as manufactured by Cabstrut, or the Diamond ducting range, as manufactured by Crabtree, or the O-Line range.

The power skirting outlets shall be of the same type and manufacture as the surface and flush-mounted, power pole and flush-floor / under-screed duct-mounted outlets.

The power skirting installation shall be executed in a manner acceptable to the Consulting Electrical Engineers. The jointing of lengths shall be kept to an absolute minimum, but should they be necessary all joints / ends are to be “machine cut” and completed with a neat and flush finish.

The power skirting installation shall be complete with all standard accessories, i.e. flexible covers, flexible partitions, variable internal dividers and angles, variable external angles and angle covers, flat angles, endcaps, front and base cover joints, tee junctions, etc.

The power skirting shall be (approximately) 195 mm high x 50 mm deep, allowing two x 65 mm high covers (top and bottom channels) and one x 40 mm high cover (middle channel). The top channel will be for the normal power services, the bottom channel for the essential and uninterruptible power services and the middle channel for the data and telephone services. The middle channel; is to be fitted with a partition, allowing separation between the data and telephone services cabling.

2.22.18 Power Pole Installation

The power poles, where applicable, shall be a fully modular system, manufactured from aluminium, with telescopic ceiling mounting devices, protective end caps and white PVC covers i.e. DLP aluminium distribution columns range, as manufactured by Legrand Southern Africa or the Station master, as manufactured by Cabstrut, or the Diamond ducting range, as manufactured by Crabtree.

The power pole installation shall be complete with all standard accessories i.e. ceiling jacks, ceiling flanges, outlet kits, PVC covers, base plates, etc.

The power pole outlets shall be of the same type and manufacture as the surface and flush-mounted, power skirting and flush-floor / under-screed duct-mounted outlets.

The power poles shall be either 3.5 or 4.5 m in length, or as otherwise indicated on the construction drawings.

2.22.19 Flush-floor / Under-screed Ducting Installation

Where applicable, the flush-floor ducting and under-screed ducting systems shall be fully modular, manufactured from pre-galvanised steel (grade Z275), as manufactured by Cabstrut. No alternatives shall be accepted.

The flush-floor / under-screed duct-mounted outlets shall be of the same type and manufacture as the surface and flush-mounted, power skirting and power pole-mounted outlets.

The flush-floor ducting system shall be complete with all standard accessories i.e. ducts, draw-boxes, splices, power skirting connectors, pedestal conduit boxes, pedestals, etc.

The under-screed ducting system shall be complete with all standard accessories i.e. ducts, draw-boxes, splices, conduit access floor outlet kits, concrete ingress prevention plate, plastic carpet frame and lid, etc.

2.22.20 Cable Support Systems

Cable Ladder

Where applicable, the cable ladder shall be manufactured from pre-galvanised steel (grade Z275), as manufactured by Cabstrut or O-Line. The cable ladder shall be of a weld-free construction, allowing fitment on site. No alternatives shall be accepted.

The cable ladder shall be complete with all standard accessories i.e. height reducing, width reducing and adjustable splices, radiused bends, 90 degree droppers, 90 degree risers, horizontal crossovers, horizontal tees, etc.

The cable ladder shall be supported on unistrut, suspended from the roof trusses / roof slab by means of suitably-sized galvanised steel threaded rods.

The cable ladder shall be of the width, duty and rung spacing specified in the Schedule of Quantities and / or on the construction drawings.

Cable Tray

Where applicable, the cable tray shall be manufactured from pre-galvanised steel (grade Z275), as manufactured by Cabstrut or O-Line. The cable tray shall be of an inward bend return flange construction, allowing the use of thinner gauge materials, without compromising loading or deflection standards. No alternatives shall be accepted.

The cable tray shall be complete with all standard accessories i.e. height reducing, width reducing and adjustable splices, fishplate couplers radiused horizontal bends, internal elbow (droppers), internal elbow (risers), variable internal riser and external dropper, 4-way crossovers, horizontal tees, covers, dividers, etc.

The cable tray shall be supported on unistrut, suspended from the roof trusses / roof slab by means of suitably-sized galvanised steel threaded rods.

The cable tray shall be of the width and duty specified in the Schedule of Quantities and / or on the construction drawings.

2.22.21 Wiring Duct Installation

Where applicable, the wiring duct shall be manufactured from pre-galvanised steel (grade Z275), as manufactured by Cabstrut or O-Line. No alternatives shall be accepted.

The wiring duct shall be complete with all standard accessories i.e. PVC covers, splices, radiused and non-radiused internal and external elbows (bends), radiused and non-radiused, horizontal elbows (bends), tee-offs, cross-overs, etc.

The wiring duct shall be supported on unistrut, suspended from the roof trusses / roof slab by means of either galvanised steel threaded rods and / or stainless steel hangers.

The wiring duct shall be of the size specified in the Schedule of Quantities and / or on the construction drawings.

2.22.22 Wiring Mesh Installation

Where applicable, the wiring mesh shall be manufactured from pre-galvanised steel (grade Z275), as manufactured by Cabstrut or O-Line. No alternatives shall be accepted.

The wiring mesh shall be complete with all standard accessories i.e. splices, radiused and non-radiused internal and external elbows (bends), radiused and non-radiused, horizontal elbows (bends), tee-offs, cross-overs, etc.

The wiring mesh, if suspended, shall be supported on unistrut, suspended from the roof trusses / roof slab by means of either galvanised steel threaded rods and / or stainless steel hangers, or if wall mounted, secured to the wall by means of unistrut, splice clamps, washer and a M6 x 16 cup square bolt and nut arrangement.

The wiring mesh shall be of the size specified in the Schedule of Quantities and / or on the construction drawings.

2.22.23 Earthing (Bonding), Specialist Earthing, Surge Protection and Lightning Protection Systems

Earthing (Bonding) System

The Electrical Sub-contractor shall be responsible for the supply and installation of the required earthing (bonding) system.

The earthing (bonding) system shall comply with SANS 0142 - 1987 and shall comprise a continuous main copper earth bar together with connections to all items of electrical, electronic and mechanical equipment.

Bonding of the earth system to metal work in buildings, concrete reinforcing, roofs or pipework, etc. shall also be supplied under this sub-contract.

The clamping surfaces of all connections shall be properly tinned to prevent oxidation.

Where earthing conductors are run on walls or vertical surfaces they shall be secured by “stand-off” bolted saddles at intervals not exceeding 1 250 mm.

Earth electrodes to be supplied and installed under this contract shall consist of 16 mm diameter extensible molecular bonded copper clad steel rods 1 800 mm long, complete with coupling and terminal. These electrodes must comply with SANS 0163 - 1985.

Specialist Earthing

A Specialist Service Provider, appointed to the Electrical Sub-contractor, shall be responsible for the supply and installation of the required specialist earthing system, as is depicted on the attached drawings.

The Consulting Electrical Engineers will, if required, afford the Electrical Sub-contractor an opportunity to undertake this Works, or direct the Electrical Sub-contractor to appoint the Specialist Service Provider to undertake this Works.

If a Specialist Service Provider is appointed, the Electrical Sub-contractor shall remain responsible for the liaison with other Contracting Parties and the co-ordination of the Works and shall be allowed “profit and attendance” on the actual cost of the Works.

The design of the specialist earthing system has not yet been finalised by the Consulting Electrical Engineers. Therefore, a provisional sum has been allowed within the Schedules of Quantities, which will be adjusted to reflect the actual cost of the Works.

However, a general description of the specialist earthing system is as follows :

The earth bars, which are for the equipotential bonding of all process equipment, and are positioned throughout the respective building, shall be in accordance with the detail depicted on the attached drawings, and generally comprise a 300 mm x 20 mm x 5 mm copper earth bar, mounted to the respective wall / steel column by M8 rawl bolts and 40 mm insulators, pre-drilled with 8 mm diameter holes spaced 40 mm apart.

Separate earth mats / systems, as detailed on the attached drawings, shall be provided for the main sources of electricity supply and / or electricity distribution.

The respective earth mats shall be of the sizes depicted on the attached drawings and manufactured from lengths of 70 mm² bare copper earth wire, placed in a criss-cross arrangement, spaced at intervals not more than 300 mm apart, with all intersections / cross-overs, etc. cad-welded. A minimum of two corners of each earth mat shall be connected by means of lengths of 70 mm² bare copper earth wire to an earth bar, as depicted on the attached drawings.

The earth star systems, if required and depicted on the attached drawings, shall comprise a 5 metre three point star electrode system, with two 70 mm² bare stranded copper conductors, fitted to earth spikes with a crimped lugs, an a three point electrode system, comprising 1.8 m x 16 mm² electrodes, connected with 70 mm² bare copper earth wire.

The earth resistance of the respective earth bars, earth mats and earth star systems shall not exceed 30 ohms and shall be supplemented as necessary with driven molecular bonded copper clad steel rods manufactured to SANS 0163 - 1985.

Surge Protection System

The Electrical Sub-contractor shall be responsible for the supply and installation of the required surge protection equipment.

All low voltage panels and electrical distribution boards are to be fitted with surge protection, as is required by the relevant regulations.

Lightning Protection System

A Specialist Service Provider, appointed to the Electrical Sub-contractor, shall be responsible for the supply and installation of the required lightning protection system, as is depicted on the attached drawings.

The Consulting Electrical Engineers will, if required, afford the Electrical Sub-contractor an opportunity to undertake this Works, or direct the Electrical Sub-contractor to appoint the Specialist Service Provider to undertake this Works.

If a Specialist Service Provider is appointed, the Electrical Sub-contractor shall remain responsible for the liaison with other Contracting Parties and the co-ordination of the Works and shall be allowed “profit and attendance” on the actual cost of the Works.

The design of the lightning protection system has not yet been finalised by the Consulting Electrical Engineers. Therefore, a provisional sum has been allowed within the Schedules of Quantities, which will be adjusted to reflect the actual cost of the Works.

A general description of the lightning protection system is as follows :

General

Earthing systems to protect buildings against lightning shall be in accordance with SANS 03 - 1985, as amended.

The components of the lightning protection system shall be installed such that they are not visible; surface mounting of the components shall be kept to an absolute minimum and only where absolutely necessary.

Roofs

Metallic roof sections shall be connected to down conductors to form the overall air termination network, and metallic gutters and drainpipes shall be bonded to this.

Non-metallic (e.g. concrete) sections of roofs shall be fitted with edge or ridge conductors of coastal quality aluminium alloy, which shall be bonded to steel reinforcing by means of bimetallic bonding terminals.

These conductors shall be supported by suitable cleats or clamps, which must allow for thermal expansion. The mounting thereof shall be such as to prevent corrosion due to direct contact with the concrete.

The air termination network shall be connected to the ground earth electrodes by down conductors.

Parts of the building, e.g. chimneys protruding above the general level of the roof shall be protected either by lightning masts or edge conductors, connected to the air termination network.

Down Conductors

The concrete reinforcing, steel columns or similar metal work in the walls of the building shall normally be used as down conductors, connected to the air termination network ground electrode systems through bonding terminals.

Where connected to reinforcing, these terminals shall be cast into the concrete and the reinforcing bars shall be bonded together with mild steel wire prior to casting the concrete.

Where separate external copper or aluminium down conductors are used these shall be bonded to the metal structure of the building to prevent flashing puncturing the concrete or brickwork.

There shall be a minimum of two down conductors (maximum spacing 30 m of building perimeter) preferably located at opposite building corners.

Down conductors shall be connected to the ground system with (if aluminium, bimetallic) bonding terminals 500 mm above ground level.

These terminals shall also be useable as test terminals. The down conductor shall be sleeved below the terminal to a depth of 400 mm below ground level by PVC pipe fixed to the building wall.

Ground Earth Electrodes

The steel reinforcing in the foundation of the building shall be bonded to the ground electrode system.

The steel reinforcement of the building foundation slab shall be earthed by means of driven or pre-drilled rods prior to casting of the concrete. The reinforcing bars shall be bonded together with mild steel wire.

The ground earth electrode shall consist of a trench earth around the building with a single 70 mm² copper conductor or 25 mm x 3 mm strip, buried at a minimum depth of 1 000 mm not more than 1 000 from the building, unless necessary to increase locally to avoid pipes or other fixtures.

The conductor shall be buried in riddled earth to improve conductivity.

The earth resistance of the ground electrode shall not exceed 30 ohms when isolated from the rest of the low voltage electrical system and down leads and shall be supplemented as necessary with driven molecular bonded copper clad steel rods manufactured to SANS 0163 - 1985.

2.22.24 Specialist Sub-contract Installations

The specialist sub-contract installations, as referred to in Clause 4.2.1 and as listed hereunder, shall include, namely :

- ☐ access control (including intercom and door security) installation (refer to Notes 2, 3 and 5)
- ☐ air-conditioning and ventilation services installation (refer to Notes 2, 3 and 5)
- ☐ closed circuit television installation (refer to Notes 2, 3 and 5)
- ☐ early warning detection and alarm installation (refer to Notes 2, 3 and 5)
- ☐ elevators, escalators and goods hoists, (where applicable) (refer to Notes 1, 4 and 5)
- ☐ fire protection services installation (refer to Notes 1, 4 and 5)
- ☐ generator installation (refer to Notes 1, 4 and 5)
- ☐ hot and cold water services installation (refer to Notes 1, 4 and 5)
- ☐ information and communications technology (comprising telephone and data) installation (refer to Notes 2, 3 and 5)
- ☐ medical gas installation (refer to Notes 2, 4 and 5)
- ☐ medical services (including theatre panels, theatre pendants, theatre lights, horizontal and / or vertical bedhead ducting) installation (refer to Notes 1, 4 and 5)
- ☐ nurse-call (and emergency bell) installation (refer to Notes 2, 3 and 5)
- ☐ public address installation (refer to Notes 2, 3 and 5)
- ☐ smoke extraction services installation (where applicable) (refer to Notes 2, 3 and 5)
- ☐ television (and television aerial distribution) installation (refer to Notes 2, 3 and 5)
- ☐ specialist equipment, furniture, fittings and appliances (refer to Notes 2, 3 and 5)

Note 1 : The Sub-contractor responsible for the specialist sub-contract installation shall be appointed as a Domestic Sub-contractor to the Electrical Sub-contractor, who shall have been appointed as Selected Sub-contractor to the Principal Contractor.

Note 2 : The Sub-contractor responsible for the specialist sub-contract installation shall be appointed as a Domestic, Nominated or selected Sub-contractor to the Principal Contractor.

Note 3 : The Sub-contractor responsible for the specialist sub-contract installation shall be responsible for the installation of all conduits, ducts, trays, trunking, wireways and associated accessories required for the respective specialist sub-contract installation, as indicated on the construction drawings.

Note 4 : The Electrical Sub-contractor, appointed as Selected Sub-contractor to the Principal Contractor, for the electrical sub-contract installation, shall be responsible for the installation of all conduits, ducts, trays, trunking, wireways and associated accessories required for the respective specialist sub-contract installation, as indicated on the construction drawings.

Note 5 : The Electrical Sub-contractor, appointed as Selected Sub-contractor to the Principal Contractor, for the electrical sub-contract installation, shall be responsible for the installation of all power supplies required for the respective specialist sub-contract installation, as indicated on the construction drawings.

The following is to be noted, namely :

Information and Communications Technology (including telephone and data)

The telephone and distribution boards, where applicable, shall be positioned as indicated on the construction drawings.

The distribution board must be sized as shown on the construction drawings, complete with a single hinged door and a 20 mm thick wooden backboard, flush mounted at a minimum 1 200 mm above floor level, or at the height otherwise indicated on the construction drawings.

The sizes of all conduits are indicated on the drawings. Polyester draw-wires shall be installed in all conduits.

Flush mounted end boxes must consist of a 100 mm (h) x 100 mm (w) x 50 mm (d) outlet box fitted with suitable blank cover plates, flush mounted 300 mm above floor level, or as otherwise indicated on the construction drawings.

The telephone and data outlets shall be a fully modular system comprising a strong, universal steel support frame, an easy clip-on assembly and a white screwless cover plate i.e. Mosaic™ product range, or Lumex Clipsal S2000 series, or Crabtree Diamond Range, etc.

All telephone and data outlets shall be of the same manufacture as the light switches, small and large power and associated outlets.

The telephone and data outlets shall be fitted with the modular 6-way, 4-contact telephone socket, complete with shutter. Where possible, the two-module grid, either two telephone sockets, two data sockets, or a combination of telephone and data sockets, may be utilised.

2.22.25 Medical Services

There is no Medical Services under this contract.

2.22.26 Electrical and Related Status Signals

No Status Panels shall be provided under this project.

2.23 STAFF TRAINING

The Electrical Sub-contractor shall provide comprehensive training of male and female operational staff and nominated maintenance personnel, to the approval of the Consulting Electrical Engineers.

Training shall be comprehensive, covering all aspects of systems installed as part of these Works.

The Electrical Sub-contractor shall provide a detailed training programme and a copy of the training documentation to the Consulting Electrical Engineers, for comment and review, no less than 12 weeks prior to the commencement of training.

No training will commence on site prior to the written approval of the Consulting Electrical Engineers. Should the Consulting Electrical Engineers not approve the training programme and documentation, the training programme and documentation will be referred back to the Electrical Sub-contractor for re-evaluation and re-submission to the Consulting Electrical Engineers.

The number of staff to be trained is to the full discretion of the Client. However, the Electrical Sub-contractor shall allow for 2 groups, each of up to 4 personnel. Each group shall receive a minimum of two 2-hour training sessions. One of these sessions shall be held prior to the commissioning of the electrical engineering services installation, and the other of these sessions, upon expiry of the defects liability period.

Training shall be adequate to ensure that the groups trained are :

- ☐ competent in the operation of systems
- ☐ adequately trained to carry out on-going training
- ☐ fully aware of the location of all equipment installed as part of this Sub-contract within their area of responsibility

The names of personnel attending the training shall be recorded and submitted to the Consulting Electrical Engineers at the conclusion of training.

Maintenance staff shall demonstrate a complete understanding of the location and connectivity of the various elements of the electrical engineering services installation.

All training aids and course notes necessary to conduct effective operational and maintenance training shall be supplied by the Electrical Sub-contractor.

The training venue will be made available on site by the Client.

PART 3

STANDARD TECHNICAL SPECIFICATIONS

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A 2	General	A 2.1
A 3	Painting and Colour Coding	A 3.1 - A 3.5
A 4	Operating and Maintenance Manuals	A 4.1 - A 4.2
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C 3	LV Cables	C 3.1 - C 3.3
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C 7	Distribution Boards	C 7.1 - C 7.3
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C 9	Conduit and Conduit Fittings	C 9.1 - C 9.2
C 10	PVC Wiring	C 10.1
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C 12	Lighting Installations	C 12.1
C 17	Photo-electric Cells	C 17.1
C 21	Earthing	C 21.1 - C 21.2
C 23	Lightning Protection in Buildings	C 23. 1 - C 23.2
C 25	Water Heaters	C 25.1

(The afore-mentioned documentation has not been included in the Enquiry Document, but may be obtained from the offices of the Consulting Electrical Engineers.)

PART 4

SCHEDULE OF QUANTITIES

CONTENTS

ITEM	DESCRIPTION	PAGE
	General Notes	
1	Specifications	6.1
2	Alterations	6.1
3	Issue of Schedule of Quantities in Electronic Format	6.1
4	Pages	6.1
5	Responsibility	6.1
6	Unit Rates	6.1
7	Variations	6.2
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14	Quantification	6.3
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PART 4

SCHEDULES OF QUANTITIES

GENERAL NOTES

1 Specifications

The Schedule of Quantities form part of the Tender Document and must be read in conjunction with the other parts forming the Tender Document in order to gain the full meanings of the descriptions of the work to be done and materials and equipment to be used.

2 Alterations

No alterations, erasure or addition is to be made in the text of the Schedule of Quantities. Should any alteration, erasure or addition be made, it will not be recognised but the original wording of the Schedule of Quantities will be adhered to.

3 Issue of Schedule of Quantities in Electronic Format

The Consulting Electrical Engineers will make the Schedule of Quantities available to Tenderers in electronic (Microsoft Excel Workbook) format, upon request.

If utilised for tender submission, the Tenderer will be responsible for ensuring the correctness of all calculations. The Consulting Electrical Engineers cannot be held responsible for any arithmetic inaccuracies in the electronic Schedule of Quantities.

4 Pages

Before submitting his Tender, the tenderer must check to ensure all pages have been included and are distinct. Should any obvious errors be found the Consulting Electrical Engineers is to be notified immediately to have them corrected as no liability whatsoever will be admitted by the Consulting Electrical Engineers in respect of errors in the Tender due to the foregoing.

5 Responsibility

The responsibility for the accuracy of the quantities written into the Schedule of Quantities remains with the person who prepared the Schedule of Quantities. The Tenderer shall be relieved of the responsibility of measuring quantities at the Tender stage, and the Tender Price submitted shall be in respect of the quantities set out in the Schedule of Quantities.

The Tenderer will be required to make his assessment of items such as brackets, fixings, etc., from details stated in the Schedule of Quantities and shall make allowances therefore within the rates tendered.

Tenderers shall make due allowance in their rates for any item of incidental or contingent work, labour and materials not contained in the Schedule of Quantities, but deemed necessary for the successful completion of the Works.

6 Unit Rates

Unless a separate rate for the supply and the installation of any item is specifically called for, the supply and installation costs of any items shall be fully included in the unit price.

The description of each item shall, unless otherwise stated herein, be held to include making, conveying and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, cutting and waste, patterns, models and templates plant, temporary works, return of water establishment charges, profit and all other obligations arising out of the Conditions of Contract.

7 Variations

Variations in the scope and extent of the work included in the Schedule of Quantities shall be allowed in order to meet the Client's requirements and shall be measured and costed at the rates entered in the Schedule of Quantities, where appropriate, forming an addition to or deduction from the total of the Schedule of Quantities. Any items or variations for which rates have not been added in the Schedule of Quantities shall be agreed and priced as non-scheduled items in accordance with the provisions of the contract.

The rules governing the extent and costing of the variations shall be those provided for in the Conditions of Contract and Variations to Sub-contract.

Variations to the planning before the work has been executed shall be priced as above. Alterations to work already executed cannot necessarily be priced as above and must be reviewed on its merits.

The appropriate portions of the Preliminary & General Costs are to be adjusted proportionately to the nett additions or omissions of the variations to the contract

8 Preliminary and General

Tenderers shall price the Preliminary & General under any or all of these groups, viz.:

- a) A fixed amount
- b) An amount varied in proportion to the final contract value as compared to the Tender Price
- c) An amount varied in proportion to the final contract period as compared to the originally specified contract period

The allocation of prices to the three categories listed above must be realistic and the Electrical Sub-contractor may be required to justify the allocation of the prices. Should no Preliminary & General Costs be entered against the variable items b) or c) above, no adjustment thereof shall be considered.

9 Provisional Sums

All Provisional Sums shall be expended only as directed by the Consulting Electrical Engineers and any balance remaining shall be deducted from the amount of the Sub-contract sum. No work for which Provisional Sums are provided shall be commenced without written instructions from the Consulting Electrical Engineers.

All Provisional Sums may be utilised in full or in part. These Provisional Sums may be deleted in full or in part if not required.

10 Contingency Sums

All Contingency Sums shall be expended only as directed by the Consulting Electrical Engineers. No work for which Contingency Sums are provided shall be commenced without written instructions from the Consulting Electrical Engineers.

All Contingency Sums may be utilised in full or in part. These Contingency Sums may be deleted in full or in part if not required.

11 Dayworks

The rates included for daywork shall not form part of the Tender Price, but Tenderers shall note that this item must be regarded as provisional and will only be payable to the Electrical Sub-contractor if and when a written order to this effect has been issued.

12 Value Added Tax

This Schedule of Quantities shall be priced nett, excluding VAT. VAT shall be added at the summary at the end of the Schedule of Quantities. The final price entered into the Tender Form shall be inclusive of VAT.

13 Adjustment

The Client reserves the right to adjust arithmetical errors in the extension of rates and totals in the Tender, and the Tenderer will be informed of the effect of any corrections on his Tender Sum prior to the award of the Contract. In no case will tendered rates be adjusted when correcting such errors.

In the event of there being tendered rates or prices which are declared by the Client to be unacceptable to him, because they are either excessively low or high or not in proper balance with other rates, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or prices objected to. If after submission of such evidence and any further evidence requested, the Client is still not satisfied with the tendered rates or prices objected to, he may request the Tenderer to amend these rates and prices along the lines indicated by him.

The Tenderer may or may not thereupon alter and amend the rates and prices objected to and such other related prices as are agreed to by the Client. Should the Tenderer fail to amend his Tender in a manner acceptable to the Client, or at all, it may prejudice his Tender.

In the case of Tenders with Schedule of Quantities, the total corrected Tender Price in the Tender Form shall constitute the Sub-contract Sum. Tenderers are advised to check their extensions and additions. In the case of a Lump Sum Tender, the original uncorrected Tender Price shall be considered. The Consulting Electrical Engineers shall negotiate adjustments to the rates tendered in order to correct the arithmetical extension or addition, whilst the Tender Price as submitted, remains unaltered.

In either case, the Tenderer shall be notified of any arithmetical error in his Tender, and shall be given the opportunity to withdraw the Tender at this stage.

14 Quantification

The successful Tenderer and the Client or his Agent may agree that the total of any Schedule, including any variations by way of additions thereto or deductions there from, represents a fair and accurate quantification of the items set out in the Schedule of Quantities and the parties may agree final payment on that basis. In the event of any dispute as to the quantities, the disputed item or items shall be adjusted where necessary.

15 Ordering

The quantities in this Schedule of Quantities shall not be used for ordering materials. The onus is on the successful Tenderer to order the correct quantities of materials as per the drawings.

16 Payment

The measurement and payment of Work done shall be made in accordance with the unit price rates, and rates of pay listed in the Schedule of Quantities. No payment will be made for any item of associated work not specifically detailed in the Schedule of Quantities.



CONSULTING ELECTRICAL & MECHANICAL ENGINEERS
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EASTERN CAPE DEPARTMENT OF PUBLIC WORKS
IDUTYWA MAGISTRATE'S OFFICE :
REPAIRS AND RENOVATIONS TO THE EXISTING BUILDING
(WCS 054991)

TENDER DOCUMENT
FOR THE
ELECTRICAL ENGINEERING SERVICES
(TELECOMMUNICATIONS)

Issued by :

Eastern Cape Department of Public Works
7th floor PRD Building
Mthatha
5099

Telephone Number : (047) 502 7030

Facsimile Number : (-)

Prepared by :

Evans Consulting Engineers cc
17 Surrey Road
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East London
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Telephone Number : (043) 721 3192

Facsimile Number : (086) 681 0657

Tenderer's Name :

.....

Tenderer's Address :

.....

Telephone Number :

.....

Facsimile Number :

.....

Email Address :

.....

February 2025

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DRAWING SCHEDULE

E20246 - 2023 - 472 / -4- 000 Telecoms Rev E (Tender)

E20246 - 2023 - 472 / -4- 001 Telecoms Rev D (Tender)

PART 1

THE SCHEDULES

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PART 1A

PARTICULARS RELATING TO TENDERER

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building Electrical Engineering Services (Telecommunications)

1. The registered and trading names, physical and postal address, and contact numbers for the tendering entity.

Registered Name :

Trading Name :

Physical Address :

Postal Address :

Telephone No. :

Facsimile No. :

2. The full first and surnames of their partners and/ or directors and their domiciles and addresses.

Full Name (1) :

Address (1) :

Full Name (2) :

Address (2) :

Full Name (3) :

Address (3) :

3. The names and addresses of the local agents, firms, or representatives who are interested in any manner whatsoever in the tender.

Full Name (1) :

Address (1) :

Full Name (2) :

Address (2) :

4. Bank Details Bank Name :

Branch & Code :

Account Number :

Contact Person :

Telephone No. :

.....
Name

.....
Signature

.....
Date

PART 1B

VARIATIONS TO SUB-CONTRACT

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Telecommunications)**

These rates are to be used in the event work is not readily measurable in terms of the attached Schedule of Quantities or Schedule of Rates

I / We agree that any variations to the agreement (not priced elsewhere in this Tender Document) will be priced strictly in accordance with the rates submitted below. The rates (exclusive of VAT) shall be calculated as specified below :

- Cost shall mean the nett cost of equipment or materials supplied to site with all discounts offered
- The labour rates shall include all personnel insurance costs, holidays with pay and travelling time payments, incentive bonuses and overtime premiums, except for overtime payment when overtime is authorised in writing by the Consulting Electrical Engineers
- Percentage and labour rates shall include profits, overheads, financing, insurance, guarantee (with free maintenance) costs, engineering and management

1. for the supply of equipment over and above that originally required by the specifications and drawings Cost Plus _____ %
2. equipment deleted will be at the price entered in the price schedule or at the supplier's selling price, unless a fixed price for deletion of an item is specified elsewhere in the Tender Document
3. for substituted equipment, the percentage reflected in item (1) above will only apply to the difference in the supplier's price arising from the substitution
4. for the supply of all labour, charges will be levied at the selling rate (for normal time) of :

Foreman	_____ per hour
Commissioning Engineers	_____ per hour
Tradesman	_____ per hour
Journeyman	_____ per hour
Labourer	_____ per hour
Other specialists / hour	Cost Plus _____ %

5. If pricing by team work is the standard practise of the Telecommunications Sub- contractor, the team shall comprise the following :

	persons / team members at	selling price per hour
--	---------------------------	------------------------

6. Overtime rates

	Night (after 19h00)	_____ times normal time
	Saturday	_____ times normal time
	Sunday and Public Holidays	_____ times normal time
	Other (specify)	_____ times normal time
7. Transport charges

	Car	_____ Rand per km
	LDV (under 2 tonnes)	_____ Rand per km
	Truck (between 2 and 5 tonnes)	_____ Rand per km
	Other (specify)	_____ Rand per km

Name

Signature

Date

PART 1C

PRICE ADJUSTMENT SCHEDULE

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Telecommunications)**

Does your Tender Price include forward cover for foreign exchange variations ?

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

The tenderer shall detail all adjustments to which the prices and rates listed in this Tender Document are to be subjected to.

The tenderer shall enter NIL hereunder if prices are not subject to adjustment.

[illegible]

Name

Signature

Date _____

Date _____

PART 1E

SCHEDULE OF SUB-CONTRACTORS PROPOSED BY TENDERER

**Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Telecommunications)**

The Tenderer shall state hereunder the names and particulars of all Sub-contractors he proposes to employ on the Works. The Tenderer shall also define the duties and relevant experience of each Sub-contractor listed.

Name of Sub-contractor	Contact Numbers	Proposed Duties	Experience

Name

Signature

Date

PART 1F

SIMILAR INSTALLATIONS CARRIED OUT BY TENDERER

Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Telecommunications)

The Tenderer shall list below all similar works carried out by him including Client details and value of the Works.
Failure to comply may invalidate the Tender.

Name of Contract	Year	Client	Consulting Engineers	Value (R)

Name

Signature

Date

PART 1G

SCHEDULE OF WORK IN HAND

Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Telecommunications)

The Tenderer shall detail below all Work currently in progress.

Client	Project Details	Project Value (R)	Completion Date

PART 1H

SCHEDULE OF MATERIALS

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Telecommunications)**

The Tenderer shall detail below all materials proposed in order to complete the Works specified. (Failure to complete this schedule may invalidate the tender submission).

As per (Schedule of Quantities)

Access Control

Description

Manufacturer

Metal Detector

X-ray Viewer and Conveyor

CCTV

Public Address

Data and IT

.....
Name

Signature

Date _____

PART 1I

SCHEDULE OF STAFF AVAILABLE

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Telecommunications)**

The Tenderer shall provide a list of all staff (from senior personnel to labourers) that will be made available to perform any duties for and on behalf of the Tenderer on this project. The Tenderer may attach a company organigram for information purposes.

The Tenderer shall note that a competent Accredited Person registered as an Installation Electrician shall be responsible for the Works and present on site at all times.

Name	Designation	Experience	Qualification	Registration *

* This information shall be as appearing on the certificates as required in terms of the Occupational Health and Safety Act No 85 of 1993

Name

Signature

Date

PART 1J

AGREEMENT RELATING TO OCCUPATIONAL HEALTH & SAFETY ACT

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Telecommunications)**

Agreement between the Principal Contractor and the Mandatory (hereinafter referred to as the Sub-contractor) as envisaged in Section 37 (2) of the Occupational Health and Safety Act No 85 of 1993 as amended.

Background Information :

1. The Occupational Health and Safety Act comprises Sections 1 to 50 and all unrepealed Regulations promulgated in terms of the former Machinery and Occupational Safety Act No 6 of 1983 as amended as well as any other Regulations which may be promulgated from time to time in terms of the new Act.
2. The Mandatory as defined in the Act may be an agent, a contractor or a sub-contractor. This shall not derogate from the Telecommunications Sub- contractor's status as being the responsible employer on this particular Contract.
3. Section 37 of the Occupational Health and Safety Act has the potential of punishing Clients (Principals) for the unlawful acts or omissions of Contractors save where a written agreement has been concluded between the parties containing arrangements and procedures to ensure compliance with the said Act by the Telecommunications Sub-contractor. This Agreement constitutes such a written agreement.
4. This sub-contract document forms an integral part of the Agreement.
5. To be able to perform in terms of the Agreement, Sub-contractors must be familiar with the relevant provisions of the Act.
6. The liability of the Telecommunications Sub- contractor under this Agreement will commence on the day the site is handed over to the Telecommunications Sub- contractor and terminate when the site is handed back to the Client.
7. Sub-contractors who intend to utilise the services of further Sub-Contractors are advised to conclude a similar Agreement with their Sub-Contractors.

I

representing (the Telecommunications Sub-contractor)

hereby acknowledge that the Telecommunications Sub- contractor is an employer in his own right with duties as prescribed in the Occupational Health and Safety Act No 85 of 1993 as amended. The Telecommunications Sub-contractor undertakes to ensure that all work will be performed, and machinery and plant used, in accordance with the provisions of the said Act. The Telecommunications Sub- contractor furthermore agrees to comply with the requirements of the Client as contained in the Contract documents and to liaise with the Client should he, for whatever reason, be unable to perform his duties in terms of this Agreement.

Signed at (place) on (date / month / year)

Signature on behalf of the Sub-contractor (the Mandatory)

Signature on behalf of Eastern Cape Department of Public Works (the Client)

PART 1K

CERTIFICATES REQUIRED

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building Electrical Engineering Services (Telecommunications)

The Tenderer shall submit proof of the following, namely :

Compulsory Documentation

1. Notice of Registered Office and Postal Address of Company, in terms of the Companies Act, 1973, including the Company Registration Document accompanied by Share Certificates, where applicable i.e. Cipro Certificate
2. Copies of the Identity Documents, for each of the respective Directors / Members / Partners / Shareholders/ Trustees, etc.
3. Tax Clearance Certificate, as issued by the South African Revenue Services
4. Accredited Valid Original or Certified B-BBEE Certificate
5. Declaration of Insurances : Workmen's Compensation Assurance
: Unemployment Insurance Fund
: Contractor's All Risks Insurance
6. Original Bank Stamped Letter or Cancelled Cheque as Proof of Bank Account
7. Licence of the Accredited Person registered as an Installation Electrician who will be responsible for the Works and the on-site supervision thereof (*where applicable*)
8. Licence of the Accredited Person registered as a Master Installation Electrician who will be responsible for the relevant portion of the Works and the on-site supervision thereof (*where applicable*)
9. Proof of registration of Company, and where applicable, the relevant persons, with the Private Security Industry Regulatory Authority (PSIRA) (*where applicable*)
10. Proof of registration of all persons who will be involved in this project with the South African Qualification & Certification Committee (SAQCC) for the Fire Industry (*where applicable*)
11. Proof of registration of Company with the Fire Detection Installers Association (FDIA) (*where applicable*)
12. Proof of registration as a "Gas Installer", in terms of the Government Gazette, number 32395, dated 15 July 2009, as amended (*where applicable*)
13. Proof of registration of Company with the Automatic Sprinkler Inspection Bureau (Pty) Ltd (ASIB) (*where applicable*)

Supplementary Documentation

14. Company Profile (Abridged Version)
15. Proof of Location of Office
16. Telecommunications Sub- contractors Association (ECA) Registration Certificate (for the associated electrical Works)
17. Proof of Central Supplier Database Registration

Name

Signature

Date

PART 1L**FORM OF RESOLUTION**

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Telecommunications)**

This form is to be completed in full by the Tenderer. Failure to do so may invalidate the Tender.

At a meeting held by the Directors / Members / Partners / Trustees of

_____ (Tenderer's Name)

at _____ (Place)

on the _____ (Day / Month / Year)

it was resolved

that _____

in his / her capacity as their _____

is hereby authorised and empowered to sign the Tender and / or Contract Documents for the project known as the

**“Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Telecommunications)”**

for and on behalf of the Tenderer.

Signed : _____ Signed : _____

Capacity : _____ Capacity : _____

PART 1M**SITE INSPECTION CERTIFICATE**

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Telecommunications)**

This form is to be completed in full by the Tenderer. Failure to do so may invalidate the Tender.

This is to certify that I / we

the representative (s) of

(Tenderer's Name)

(address)

telephone number

facsimile number

certify that I / we have examined the site, drawings and tender documents and have made myself / ourselves fully conversant with all conditions and circumstances likely to influence the rates tendered.

Name of Tenderer's Representative

Signature of Tenderer's Representative

Name of Consulting Electrical Engineers' Representative

Signature of Consulting Electrical Engineers' Representative

PART 2

PROJECT SPECIFICATION

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PART 2

PROJECT SPECIFICATION

Any requirement or statement made in this Project Specification section of the specification shall override the requirements of Part 3 : Standard Specifications and the Drawings.

2.1 GENERAL

This specification covers all Works necessary for the electrical engineering (telecommunications) services installation of the project known as the “Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building”.

The project generally comprises the following Works, namely :

- ❑ Alterations and refurbishment of the Idutywa Magistrate's Office building
- ❑ Construction of a Decanting Site for the temporary Magistrate’s Office
- ❑ the above building Works generally include brick / dry walls, existing concrete slabs and floors, sheet vinyl / carpet / porcelain tile flooring, painted / tiled surfaces, suspended exposed “T” / flush plastered ceilings, etc.

This sequencing of the Works and the “unofficial” sectional completion requirements will be negotiated by the Client, Professional Team, Principal Contractor and the successful Tenderer.

The proposed base sequencing of the Works is as follows:

Decanting (Phase 1)

- ❑ Phase 1A – Addition of park homes (Offices) to the respective site as instructed
- ❑ Phase 1B – Moving of staff/equipment to temporary offices

Refurbishment to Existing Magistrate Offices (Phase 2)

- ❑ Phase 2 - Refurbish and Alterations to entire Building / Site

The Tenderer’s attention is specifically drawn to the fact that at Practical Completion the completion of specific sections must be such that the Client can actually move into the premises and commence conventional operational Office and Court activities.

Thus, programming for the Works must allow for the systematic clearance of all outstanding work and defects (save only latent defects) prior to the “Sectional” and “Practical” Completion circumstances required. The Works to be cleared are to include all electrical and mechanical installations including commissioning procedure and certificates of compliance etc., in addition to the building works.

Any works to the exterior of the building which do not impact on the conventional operational Office and Court - related activities could be exempted from this requirement regarding “Sectional” and “Practical” Completion.

2.2 SCOPE OF WORK

2.2.1 Principle Items of Work

The principle items of Work covered by this Sub-contract comprises the supply, delivery, installation, testing, commissioning and three (3) months guarantee (with free maintenance during the guarantee period) of the complete Works involved in the Telecommunications system, as further detailed below, namely :

Access Control

- ❑ Preliminary & General Items
- ❑ The supply and installation of electronically controlled maglocks
- ❑ The supply and installation of communication cabling, connectors and lugs
- ❑ The supply and installation of recessed mounted green glass break units inclusive of protection covers
- ❑ The supply and installation suitable power supply units with battery back up
- ❑ The supply and installation of metal status indicators “open and close”
- ❑ The supply and installation of video phone and desk station devices

- ❑ The supply and installation of door tag readers
- ❑ The supply and installation of centurion automatic gate motors including remotes, beams and control panels
- ❑ The connection and interface to sliding doors
- ❑ The supply and installation of stand-alone metal detection
- ❑ The supply and installation of x- ray baggage detection unit and accessories
- ❑ The supply and installation of conduit, fittings and accessories
- ❑ Connect and interface to the fire detection system, including the re-programming thereof
- ❑ Provisional Sums as detailed in the Schedule of Quantities
- ❑ Provision of Record Drawings and Operating and Maintenance manuals
- ❑ Provision of Certificates of Compliance for complete installation covered in this specification
- ❑ All other materials, equipment, labour and services necessary for the complete, safe and efficient operation of the Works in full accordance with the specifications as detailed in the “Project Specification”
- ❑ Maintenance during the three (3) months defects liability period i.e. if, during the defects liability period, the access control is not in working order for any reason for which the Contractor is responsible, or if the installation develops any defects, the Telecommunications Sub-contractor shall immediately upon being notified thereof take steps to remedy the defects
- ❑ Maintenance during the twelve (12) months defects liability period for the X-ray, metal detector, and associated equipment i.e. if, during the defects liability period, the access control is not in working order for any reason for which the Contractor is responsible, or if the installation develops any defects, the Telecommunications Sub-contractor shall immediately upon being notified thereof take steps to remedy the defects

Closed Circuit Television

- ❑ Preliminary & General Items
- ❑ Connect and interface CCTV system, including the re-programming thereof
- ❑ The supply and installation of conduit, fittings and accessories
- ❑ The supply and installation of cabling, fibre and all accessories to make the system complete
- ❑ Provisional Sums as detailed in the Schedule of Quantities
- ❑ Provision of Record Drawings and Operating and Maintenance manuals
- ❑ Provision of Certificates of Compliance for complete installation covered in this specification
- ❑ All other materials, equipment, labour and services necessary for the complete, safe and efficient operation of the Works in full accordance with the specifications as detailed in the “Project Specification”
- ❑ Maintenance during the three (3) months defects liability period i.e. if, during the defects liability period, the access control is not in working order for any reason for which the Contractor is responsible, or if the installation develops any defects, the Telecommunications Sub-contractor shall immediately upon being notified thereof take steps to remedy the defects

Data Installation

- ❑ Network and telephone points (Cat5E) as per the clients requirements

Public Address/ Recording System

- ❑ Preliminary & General Items
- ❑ The supply and installation of ceiling/wall mounted public address speakers
- ❑ The supply and installation of communication cabling, connectors and lugs
- ❑ The supply and installation of recording speaker/conference equipment inclusive of servers and
- ❑ The supply and installation of bulk evacuation system, loop system and music/PA system combination equipment in cabinet
- ❑ The supply and installation of conduit, fittings and accessories
- ❑ Connect and interface to the fire detection system, including the re-programming thereof
- ❑ Provisional Sums as detailed in the Schedule of Quantities
- ❑ Provision of Record Drawings and Operating and Maintenance manuals
- ❑ Provision of Certificates of Compliance for complete installation covered in this specification
- ❑ All other materials, equipment, labour and services necessary for the complete, safe and efficient operation of the Works in full accordance with the specifications as detailed in the “Project Specification”
- ❑ Maintenance during the three (3) months defects liability period i.e. if, during the defects liability period, the public address is not in working order for any reason for which the Contractor is responsible, or if the installation develops any defects, the Telecommunications Sub-contractor shall immediately upon being notified thereof take steps to remedy the defects

2.2.2 Works to be carried out by Others

The Telecommunications Sub- contractor will be responsible for ensuring that the electrical sub-contract Works is completed in accordance with Principal Contract, with the necessary co-ordination between the parties.

The Principal Contractor shall, under separate contracts, employ various other parties for the supply, installation, testing and commissioning of various specialist equipment installations i.e. but not limited to, the following :

- ❑ Supply and installation of early warning detection and alarm installation, which shall be carried out by the Early Warning Detection and Alarm Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of the electrical installation, which shall be carried out by an Electrical Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of fire protection services installation, which shall be carried out a Fire Protection Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of generator installation, which shall be carried out a Generator Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of hot and cold-water services installation, which shall be carried out by the Plumbing Sub-contractor, appointed as a Domestic Sub-contractor to the Principal Contractor
- ❑ Supply and installation of the kitchen equipment installation, which shall be carried out by Kitchen Equipment Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of specialist equipment, furniture, fittings and appliances, appointed either as Domestic, Nominated or Selected Sub-contractors to the Principal Contractor

The Telecommunications Sub- contractor shall work in close liaison with the appointed Contracting Parties.

2.3 INSPECTION OF SITE

The Consulting Electrical Engineers will not hold a compulsory site inspection meeting.

The prospective Tenderers are advised to thoroughly acquaint themselves with the nature and extent of Work to be done and to make allowance for items obviously intended and necessary for the proper completion of the Works, although not specified.

By submitting a tender it is accepted that the Tenderer is fully aware of all site conditions as well as the access to it, and has allowed for this in their Tender Price. Claims due to lack of knowledge will not be entertained.

2.4 COMPLIANCE WITH REGULATIONS, STANDARDS AND CODES

The entire installation shall be in full conformity with the current versions of the following :

- ❑ the South African National Standard : Code of Practice for “The Application of the National Building Regulations” i.e. those included in the “National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977)”, as published in the Government Gazette, number 31084, dated 30 May 2008, which became effective as of 01 October 2008, and known as “SANS 10400 - 2010”
- ❑ the Occupational Health and Safety Act, 1993 (Act 85 of 1993),
- ❑ SANS 204-1 : 2008 - Energy Efficiency in Buildings : Part 1 - General Requirements,
- ❑ SANS 204-2 : 2008 - Energy Efficiency in Buildings : Part 2 - The Application of the Energy Efficiency Requirements for Buildings with Natural Environmental Control,
- ❑ SANS 204-3 : 2008 - Energy Efficiency in Buildings : Part 3 - The Application of the Energy Efficiency Requirements for Buildings with Artificial Ventilation or Air-conditioning,
- ❑ any other relevant by-laws of the Local Authorities.
- ❑ SANS 507-1 : (NRS 034-1 : 2007) Electricity Distribution - Guidelines for the Provision of Electricity Distribution Networks in Residential Areas (Part 1 : Planning and Design of Distribution Networks)
- ❑ SANS 10114-1 : 2005 : Interior Lighting
- ❑ South African National Standard : SANS 10142-1: 2003 - The Wiring of Premises : Part 1 - Low-voltage Installations
- ❑ “SANS 0313 - 1999 : The Code of Practice for “The Protection of Structures against Lightning”

Further, the Telecommunications Sub- contractor shall adhere to all the relevant regulations, standards and codes specified in Part 2 of this Tender Document.

All apparatus, components, parts, fittings and materials supplied and / or installed, whether specifically specified herein or not, shall conform in respect of quality, manufacture, tests and performance with the requirements of the appropriate current South African (SABS) or British Standard Specifications (BS) and Addenda thereto, except where otherwise required by this specification or permitted by approval of the Consulting Electrical Engineers, in writing.

All materials and workmanship, which may, in the opinion of the Consulting Electrical Engineers, be inferior to that specified for the Work, will be condemned. All condemned material and workmanship must be replaced or rectified as the case may be, to the satisfaction of the Consulting Electrical Engineers.

Any fitting or item of equipment not specifically mentioned but obviously necessary for the successful completion of the installation is to be included so as to form a complete working installation.

2.5 SUPERVISION

The Works shall at all times, for the duration of the contract, be carried out under the supervision of a competent representative of the Telecommunications Sub- contractor, who should also be an Accredited Person registered as an Installation Electrician in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended.

The relevant portion of the Works shall at all times, for the duration of the contract, be carried out under the supervision of a competent representative of the Telecommunications Sub- contractor, who should also be an Accredited Person registered as a Master Installation Electrician in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended.

The afore-mentioned representatives of the Telecommunications Sub- contractor shall be able and authorised to receive and carry out instructions on behalf of the Telecommunications Sub- contractor.

2.6 PROGRAMME

Please refer to main contractor document for the relevant programme.

2.7 SAMPLES AND ALTERNATIVES

The preferred manufacturer / makers of equipment and / or material are as described in either the Project Specification, the Standard Technical Specifications or as listed in the Schedule of Quantities.

The Client reserves the right to specify the equipment and / or materials utilised in the Works. No alternatives to equipment and / or materials are to be used unless written approval is obtained from the Client, or his Representative and / or the Consulting Electrical Engineers.

2.8 DEFINITIONS

- ❑ Supply : To purchase, procure and deliver complete with all related specified accessories
- ❑ Erect : To place or mount and fix in position
- ❑ Install : To erect, connect up and commission, complete with related accessories
- ❑ Indicated shown, Noted : As indicated or shown on drawings
- ❑ Approved, Alternative : Approved in writing by the Consulting Electrical Engineers
- ❑ Similar, Equal : Equal or better in efficiency of performance and compatibility

2.9 CONFLICT BETWEEN SPECIFICATIONS, SCHEDULE OF QUANTITIES AND DRAWINGS

Should there be conflict between the Project Specifications, Schedule of Quantities, Drawings and / or Standard Technical Specifications, the sections shall be considered in the following order of priority :

- ❑ Project Specifications
- ❑ Schedule of Quantities
- ❑ Drawings
- ❑ Standard Technical Specifications

Should the Telecommunications Sub- contractor note an inconsistency between the Project Specifications, Schedule of Quantities, Drawings and / or Standard Technical Specifications, he shall notify the Consulting Electrical Engineers immediately and obtain clarification or instructions prior to ordering or installing equipment.

2.10 DEVIATIONS FROM TENDER DOCUMENTS

No deviations or alterations from that of the specification, schedules or drawings shall be made without first obtaining the written approval of the Department.

2.11 DRAWINGS

Refer to the Drawing Schedule for the list of drawings relating to this Tender Document.

At no time is the Telecommunications Sub- contractor to scale drawings or to make any assumptions regarding measurements / dimensions. If in doubt, the Telecommunications Sub- contractor is to obtain clarification from the Consulting Electrical Engineers.

2.12 MOVING OF EQUIPMENT

The Telecommunications Sub- contractor shall investigate each space through which equipment must be moved. Where necessary, equipment shall be transported in sections of size suitable for moving through spaces available.

2.13 MISCELLANEOUS

2.13.1 Labels

Labels shall be installed as required in terms of the relevant codes of practice and as further specified in this Tender Document.

All labels shall be in English with capital letters, in black and on a white background, and a minimum of 4 mm in height. All labels shall be of ivory or plastic construction and riveted / screwed in place.

2.13.2 Safety Signage

The Telecommunications Sub- contractor shall supply and install all danger, sub-station and safety notices and signs in terms of the relevant regulations.

All safety signage installed shall be in accordance with SABS 1186.

2.14 INSTALLATION DRAWINGS

Drawings shall be submitted in triplicate as soon as possible after the signing of the Sub-contract Agreement, but in ample time to allow the Consulting Electrical Engineers to examine and approve before equipment manufacture is started, or material delivered to site.

Should the Consulting Electrical Engineers require that any drawing be amended, the Telecommunications Sub- contractor shall make the necessary alterations and re-submit the drawing within two weeks.

The Telecommunications Sub- contractor shall provide the Principal Contractor and the Consulting Electrical Engineers with complete layout, installation and shop drawings, together with any necessary descriptions and specifications. Sufficient details shall be given to permit a full appraisal of all parts of the installation and their relation to the building structure.

Drawings shall give full details of all foundations, ducts, chases, pits and openings and shall set out all lines and levels for the work.

Delays caused by the submission of drawings or by an error, omission or inadequacy in these drawings, shall not be considered a reason for an extension of the Sub-contract time.

2.15 PAYMENT VALUATIONS

The Telecommunications Sub- contractor shall be entitled to submit monthly payment claims to the Principal Contractor. The payment claims are to be submitted to the Consulting Electrical Engineers for approval and recommendation, prior to submission to the Principal Contractor.

The payment claim shall be in the form of a copy of the Schedule of Quantities, indicating the tendered, claimed (supplied, installed and materials on / off site) and anticipated completion quantities, rates and values.

2.16 VARIATION ORDERS

Variations orders shall be ordered and processed either by the issue of a revised drawing or by issue of a site instruction, by a duly authorised person.

The Telecommunications Sub- contractor shall ensure that the above procedures have been followed prior to carrying out any work. Failure to comply may invalidate any claim for work done.

Unless otherwise agreed with the Consulting Electrical Engineers, all claims for variation orders shall be approved prior to proceeding with the relevant Works. The Telecommunications Sub- contractor shall submit variation order claims to the Consulting Electrical Engineers for approval with the preceding monthly payment claim.

However, the Telecommunications Sub- contractor shall only include the value of approved variation orders in any payment claim or invoice, once approved in writing by the Consulting Electrical Engineers. Variation order claims, which have not been approved, but are included in the monthly payment claim, will be deducted from the payment claim in question.

2.17 ACCEPTANCE, TESTING AND COMMISSIONING

The Telecommunications Sub- contractor shall carry out all tests required in terms of the relevant Acts, SABS Codes of Practice and Local Authority requirements. The Telecommunications Sub- contractor shall provide all the equipment and apparatus required for the purpose of carrying out all necessary tests.

The Telecommunications Sub- contractor is responsible for carrying out all necessary tests and obtaining all necessary certificates for the installation and operation of the plant.

If any part of the Works fails the test, the Telecommunications Sub- contractor shall be responsible for rectifying, at his own cost, the defective Works and the re-testing thereof to ensure compliance. If in consequence, the Consulting Electrical Engineers are obliged to attend the further acceptance tests the additional costs incurred by the Consulting Electrical Engineers shall be payable by the Telecommunications Sub- contractor.

The Works shall be deemed to be practically complete only when the Consulting Electrical Engineers has approved all tests and inspections, and a Completion Advice Notice or other relevant completion notice is issued.

2.18 COMPULSORY FORMS AND CERTIFICATES

The Telecommunications Sub- contractor shall submit the necessary commencement, compliance and completion forms for the installation as required in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended, the relevant SABS Specifications and the requirements of the relevant Supply Authorities.

2.19 OPERATING INSTRUCTIONS, MAINTENANCE MANUALS AND RECORD DRAWINGS

The Telecommunications Sub- contractor shall supply, after approval by the Consulting Electrical Engineers, three (3) bound sets of operating instructions, maintenance manuals and record drawings for the complete mechanical engineering services installation.

2.20.1 Operating Instructions and Maintenance Manual

Failure to submit these manuals will result in the delay of the final inspection and acceptance of the Works by the Client.

The manuals shall be prepared within the Contract, and shall be particular to the project. All charges that may be required by manufacturers' suppliers for the provision of information and literature shall be included in the contract price.

The manual shall be arranged with an index and referencing system and a matching flysheet giving the names and address of principals involved on the project.

The covers shall be hardbound with a four-post loose-leaf system. The Contract details shall be embossed on the front cover. Numbered card dividers shall be inserted between the sections.

The format of the manual shall be in accordance with the following sections, after a preface and index. Any other data considered by the Client to be pertinent shall also be included.

Section 1

This shall comprise the introduction, abbreviations, and any warnings that may be required by the Machinery and Occupational Safety Act, Local Authorities, and other bodies.

Section 2

A full description of each system, together with the main plant components and locations, plus the mode of operation of automatic control systems associated with such system shall be reflected in this section.

Section 3

This shall comprise the complete plant technical data of each item of control equipment (e.g. manufacturer's name and address, type of unit, serial number. This information shall be derived from a site inspection of identification plates together with information obtained from manufacturers.

Section 4

This section shall describe in detail the operating procedures necessary for starting up, running, and shutting down each individual system. This shall include the control panel starter and selection facilities together with any alarm and safety interlocks as identified on the control panel.

Section 5

This shall comprise the maintenance operations on a daily, weekly, monthly etc. basis for each item of plant. The preparation of this section shall be carried out by obtaining from the manufacturer his advice and recommendations for lubrication, adjustment and routine maintenance.

Section 6

This section shall comprise the emergency procedures to be adopted by personnel engaged on the operation and maintenance of the electrical and mechanical services with regard to fire, first aid, general failures, and call-out procedures during working hours and out of working hours.

Section 7

A recommended action on plant malfunction shall be detailed in this section. This is to assist both the user and maintenance engineer in the event of a fault developing in a system by indicating the nature of the fault and the recommended action.

Section 8

This shall comprise a list of recommended spares. The preparation of this section shall be carried out by obtaining the manufacturer's recommendations and also incorporate the Client's requirements regarding spares.

Section 9

A schedule of the record drawings or 'as-built' drawings for the new control systems shall be inserted in numerical order in this section. The drawings shall be bound into the manual.

Section 10

This section shall comprise test certificates and commissioning reports. It shall include reset schedules and temperature and pressure set points clearly for each item of control equipment.

Section 11

This shall comprise the manufacturers' literature, arranged in alphabetical order to match the list of manufacturers.

The names of the manufacturers (or their local representatives), addresses, and telephone numbers shall also be given.

2.20.2 Record Drawings

A complete set of floor plans, in hard copy format, will be issued to the Air-conditioning and Ventilation Sub-contractor, for preparation of Record Drawings.

The Telecommunications Sub- contractor shall prepare Record Drawings of the complete mechanical engineering services installation and return same to Consulting Electrical Engineers.

2.21 DEFECTS LIABILITY PERIOD

The defects liability period shall be three (3) months, which shall commence with the issue of the Works Completion Certificate (or Completion Advice Notice) in respect of the fully commissioned Works, by the Consulting Electrical Engineers.

With effect from the date of the Works Completion Certificate, and for the duration of the defect's liability period, the Telecommunications Sub- contractor shall be responsible for all routine inspections, services and maintenance-related tasks that are specified for each component of the installation by the relevant Manufacturer / Supplier.

Furthermore, the Telecommunications Sub- contractor shall be responsible for the carrying out of the following inspections, services and maintenance-related tasks, namely :

- ☐ Test the incoming voltages and determine whether they are within normal parameters
- ☐ Check all switchgear within the respective electrical distribution board
- ☐ Test all earth leakage units
- ☐ Test all socket outlets circuits i.e. one socket outlet per circuit to be tested in terms of correct earth leakage operation
- ☐ Test all light switches and determine whether all light fittings are operating correctly
- ☐ Test all photo-electrical daylight switches to ensure their correct operation
- ☐ Check all isolators to ensure correct operation
- ☐ Carry out a visual inspection of complete Telecommunications to ensure that all electrical fittings are still in place, covers fitted properly, etc.

We understand the maintenance to be undertaken on the uninterruptible power supply set during the defects liability period to be based on and include (but not be limited to) the following, namely :

- ☐ check control switches and test on bypass
- ☐ check parameters of control board
- ☐ tested and inspection of all fans and filters
- ☐ check fuses
- ☐ check machines for common errors
- ☐ load tested to be actioned and battery life cycles to be calculated
- ☐ banks of batteries to be tested and replaced if necessary

The Telecommunications Sub- contractor shall ensure that the inspections, services and maintenance-related tasks are undertaken at intervals not greater than three months.

The Telecommunications Sub- contractor shall ensure that each inspection, service and / or maintenance-related task is undertaken in the presence of a representative of either the Consulting Electrical Engineers or the Client.

The Telecommunications Sub- contractor shall ensure that the necessary documentation is completed and submitted to the Consulting Electrical Engineers confirming the completion of the relevant tasks after every and each inspection, service and / or maintenance-related task milestone.

The Telecommunications Sub- contractor shall also timeously attend to any defects, which may occur through the normal operation of the Works.

If, during the defects liability period, the installation is not in working order for any reason for which the Telecommunications Sub- contractor is responsible, or if the installation develops defects, he shall immediately upon being notified thereof take steps to remedy the defects and make any necessary adjustments.

Should such stoppages however be so frequent as to become troublesome, or should the installations otherwise prove unsatisfactory during the said period the Telecommunications Sub- contractor shall, if called upon by the Consulting Electrical Engineers, at his own expense replace the whole of the installations or such parts thereof as the Consulting Electrical Engineers may deem necessary with apparatus specified by the Consulting Electrical Engineers.

The Telecommunications Sub- contractor shall also timeously attend to any defects, which may occur through the normal operation of the Works.

Upon completion of the maintenance period, the Consulting Electrical Engineers shall undertake a final inspection and hand-over of the Works to the Client.

4.22 DETAILED SCHEDULE OF WORK

Access Control

4.22.1 Main Intercom Stations

The new intercom stations added to the new reception desk.

The intercom panel shall have a colour display and be capable of transmitting audio and voice. The intercom panel shall be a “one to one” type control panel, capable of supporting a second station, if necessary.

The new intercom panel shall be complete with 7 Ampere battery backup and battery charging unit, and be capable of carrying out automatic “self-testing” at regular intervals. The panel shall be compliant with BS5839 and EN54.

The installation shall include for block diagrams and operating instruction to be installed alongside the panel in a position approved by the Consulting Electrical Engineer. Full training in operation of the panel must be provided to all responsible persons and various levels of password access must be included for to disallow tampering of the programming and operation of the intercom panel.

4.22.2 7 Ampere Battery Backup and Battery Charging Unit

All battery backup and battery charging units installed, shall be addressable types with a unique identification code and built-in LED indicator. The unit shall be surface mounted and the batteries shall be housed within the power supply units. A quick release cover shall be supplied for the access to the power supply units. All existing battery back-up units shall be retained.

All battery back-up units installed within the ceiling voids shall have ceiling labels below the ceiling clearly indicating the position of the power supply unit.

All cabling shall be strapped together in a neat manner.

4.22.3 Electronic Locking Device (Maglock)

The electronic locking device shall be the maglock type with a locking power of minimum of 500kg. The locking device shall be properly secured to the aluminum frame and unfixed door leaf. All factory supplied caps and screw covers shall be installed. The movement rubber behind the faceplate of the release plate must be installed for proper contact with the electronic lock.

All locking devices installed must be in “free mode” until building activity ceases and the system is operational.

No visible wiring to the electronic locking device shall be accepted.

4.22.4 Break Glass Unit

The break glass units (emergency release) are to be the resettable type, recessed mounted in positions at a height indicated on the drawings and installed directly to the wiring breaking the circuit in the event of an emergency. They shall be green and have a re-settable element. All break glass units must be fitted with a plastic cover to deter hoax signals. Each unit shall have a test key and shall be handed to the client on hand-over.

4.22.5 Release Buttons

The release button shall be “no touch”, neon blue, type button, recessed mounted into the positions as indicated on the construction drawings. The release button shall de-activate the locking device, freeing the door.

4.22.6 Communication Cable

The cable installed from the main panels and other main monitoring devices to the monitoring devices shall be a stranded multi-core cable, installed into PVC conduit, which shall be supplied and installed by the appointed Sub-contractor, complete with galvanised draw-wire and saddles placed 500 mm apart.

4.22.7 Interfacing to the Early Warning Detection and Alarm Installation

The activation relay will be provided by the Early Warning Detection and Alarm Installation Sub-contractor. The Access Control Sub-contractor shall be responsible for the connection of the access control system to the early warning detection and alarm installation.

4.22.8 X-ray Scanner

Technical Specifications as follows

Detection System	: Dual Energy (Multi Energy Imaging)
Monitor	: Colour Monitor with remote operation
Conveyor Belt	: <2100mm
Screening	: Full profile of inspection tunnel
Discharge Roller	: Entrance & Exit
Power Supply	: 240V AC 50Hz, 5A Maximum
High Voltage Generator rating	: 160kV
Operating Temperature	: 0-40°C
Relative Humidity	: 95% Non-condensating
Min Object Height	: 400mm
Min Object Width	: 600mm
Min Object Length	: Unlimited
Max Unit Height	: 1400mm from floor level

Construction Detail

- ❑ The unit shall incorporate a facility to be controlled either from the right or the left-hand side.
- ❑ The operating keyboard and monitor shall be operable remotely, at a minimum of 5m from the unit.
- ❑ Control elements (pushbuttons, switches, etc.) are to be of sturdy design, selected for severe operating conditions.
- ❑ Discharge rollers shall be included with the unit. The discharge roller platform shall be long enough to prevent articles being X-rayed from falling off.
- ❑ The conveyor belt shall be designed for 24-hour, heavy-duty operation.
- ❑ The unit shall not be longer than 900mm wide and 2600mm in overall length, including the conveyor belt platform.
- ❑ Image Processing
- ❑ Monitor display shall cover not less than 500mm of the object length.
- ❑ Full scan volume shall be visible on the screen, without any corner cut-off.
- ❑ Imaging scale of all objects should be constant with the minimum distortion.
- ❑ Nine (9), independent zoom sectors. The selected sector shall be identified by light frame before zoom is activated.

- ❑ A colour monitor (non-interlaced), screen size of at least 34cm shall be provided. Parallel operation of additional monitors, without modification to the unit, must be available.
- ❑ The image on the monitor screen must be flicker free.
- ❑ Control of brightness and of contrast shall be provided on the front panel of the monitor.
- ❑ Ability to switch between “POSITIVE” and “NEGATIVE” images.
- ❑ Dual (Multi) energy colour system with a four (4) colour (Industry Standard) is a firm requirement.
- ❑ Organic/Inorganic colour stripping.
- ❑ High and low penetration.
- ❑ Variable colour stripping and variable gamma edge enhancement.
- ❑ Automatic density (variable) threat alert.
- ❑ Automatic organic material threat alert.
- ❑ Operator log-in identification facility.
- ❑ Video output capabilities for recording of images shall be included
- ❑ Voltage stabilizer must be included.

Resolution & Penetration

- ❑ Monitor display shall cover not less than 500mm of the object length.
- ❑ The image quality on the monitor shall be uniform, without distortion in the centre or the edges.
- ❑ Penetration of 25mm steel minimum must be guaranteed.
- ❑ A pre-selectable density threat level shall be a feature of the equipment, with a visual and/or audible alarm if any item being screened exceeds that pre-selected density.

4.22.9 Walk-Through Metal Detection

The metal detector shall consist of a free-standing walk-through frame with an integral control unit, and shall be suitable to detect metallic objects on a person by means of the magnetic field principle.

- ❑ The metal detector shall be suitable to detect ferrous and non-ferrous metals.
- ❑ The metal detector shall be equipped to eliminate false alarms.
- ❑ The metal detector shall scan the entire area of the walkthrough area and detect metal objects on a person passing through to the levels as specified.
- ❑ The metal detector shall incorporate self test button to confirm that the system is operating correctly.
- ❑ The metal detector shall be completely tamper proof.
- ❑ The programme and sensitivity push buttons shall be so arranged to eliminate tampering.
- ❑ The metal detector shall not be adversely affected by stationary metal bars or structures in the vicinity of the unit or moving metal near the archway.

The metal detector shall be capable of operating adjacent to an X-Ray inspection unit.

The metal detector shall have multi-zone vertical detection zones for the full height of a person. Each zone shall have a display bar with proportional indication on the vertical sides of the metal detector.

4.22.10 Closed Circuit Television (as per Schedule of Quantities)

4.22.11 4.22.11 Data (as per Schedule of Quantities)

4.22.12 Public Address / Recording System

Public Address System

Main Amplifier

- ❑ The new amplifier panel shall be situated at the Reception. Any existing public address system shall not be retained and shall be removed.
- ❑ The new amplifier shall be a 120-Watt high performance digital mixer power amplifier.
- ❑ The installation shall include for block diagrams and operating instruction to be installed alongside the panel in a position approved by the Consulting Electrical Engineer. Full training in operation of the panel must be provided to all responsible persons and various levels of password access must be included for to disallow tampering of the programming and operation of the intercom panel.

Desktop Paging Microphone (push to talk)

- ❑ The desktop paging microphone shall stand on the Reception desk.
- ❑ All cabling shall be strapped together in a neat manner.

6-Watt Clip-In Speaker

- ❑ The speaker shall be a 6-Watt, clip-in type speaker and be secured by means of a fire proof back-box.
- ❑ No visible wiring to the speaker shall be accepted.

Digital Mixer Power Amplifier

- ❑ A 240-Watt high performance digital mixer power amplifier with 1 x DIN5 Type + 2x Phone J shall be installed for third party connection to the amplifier.

Communication Cable

- ❑ The cable installed between the equipment shall be a stranded, two core fire rated, 1 mm² cable, installed into PVC conduit, which shall be supplied and installed by the appointed Sub-contractor, complete with galvanised draw-wire and saddles placed 500 mm apart.

Interfacing to the Early Warning Detection and Alarm Installation

- ❑ The activation relay will be provided by the Early Warning Detection and Alarm Installation Sub-contractor. The Public Address Sub-contractor shall be responsible for the connection of the Public Address System to the Early Warning Detection and Alarm Installation as an evacuation system. The looping system shall be activated in the event of a fire.

Conduit Installation

- ❑ The Public Address Sub-contractor shall be responsible for the installation of their conduit and accessories. Provisions have been made in the “schedule of quantities”.

Recording System*Conference System Master Control Unit*

The master control unit shall support the connection of at least 32 wired conference units and at least 246 conference units while using additional sub control units. Delegate units and multiple chairman units shall be connectable.

At least four different conference modes shall be available: First-in-first-out priority, last-in-first-out priority, voice activation and chairman only. At least 8 conference units shall be able to speaker simultaneously. The number shall be limitable to at least 1 or 2 manually via the master control unit.

The master control unit shall provide an integrated feedback suppression. Furthermore, it shall be possible to insert a DSP device into the signal chain to add additional signal processing.

The master control unit shall provide the recording of conferences on its internal storage or a locally installed USB drive (at least 32 GB capacity shall be supported).

The master control unit shall provide a USB interface to enable the integration of online conference participants via a computer. The configuration of the device using a computer shall be possible via TCP/IP connection.

- ❑ Power source: At least 100 - 240 V AC, 50/60 Hz
- ❑ Power consumption: 60 W or less
- ❑ Frequency response: At least 100 Hz - 13 kHz
- ❑ Audio inputs: At least 1x Mic (phone jack), 1x EQ input (RCA), 1x Video conference input (RCA)
- ❑ Audio outputs: At least 1x Line (phone jack), 1x Rec (RCA), 1x Headphones (mini jack), 1x EQ output (RCA), 1x Video conference output (RCA)
- ❑ Digital audio interface: USB 2.0, type-B port

- ❑ Network I/F: 100BASE-TX, Auto MDI/MDI-X, RJ45 connector
- ❑ Network Protocol: TCP, HTTP, DHCP, ARP (APIPA), UDP (mDNS), UPnP
- ❑ Finish: (Panel) Steel plate, 30 % gloss, surface-treated, paint, black
- ❑ Dimensions (WxHxD): 361 mm x 100.4 mm x 184.2 mm or less
- ❑ Weight: 2.2 kg or less

Chairman Unit

The chairman unit shall be able to guide the conference and manage meetings. The unit shall have a compact design and speech function and shall have an additional button for priority giving the chairman precedence over all participants.

- ❑ A speech button shall allow the chairman to access the microphone and in doing so will disable the internal loudspeaker, preventing acoustic feedback. In the off position, the chairman shall be able to monitor the delegates via an internal loudspeaker whilst the microphone is turned off. The chairman unit shall be self-powered by the central control unit and shall include two mini-jack earphone sockets with individual volume controls.
- ❑ The microphone shall have a ring-type LED “in-use” lamp located at the head that will illuminate the operation status when in use. The microphone can be attached and detached from the unit via a locking XLR-431 type connector. There shall be two optional microphone types available, standard length (518 mm) and a long reach (668 mm). The finish of the unit shall be of ABS resin in a matt black finish weighing 880 g (1.94 lb.) The dimensions of the unit shall be 208.9 (W) × 71.3 (H) × 160.5 (D) mm (8.22" × 2.81" × 6.32")

Delegate Unit

- ❑ The unit shall have compact design and speech functions.
- ❑ A speech button shall allow the delegate to access the microphone and in doing so will disable the internal loudspeaker, preventing acoustic feedback.
- ❑ The delegate unit shall be self-powered by the central control unit and shall include two mini-jack earphone sockets with individual volume controls.
- ❑ The microphone shall have a ring-type LED “in-use” lamp located at the head that will illuminate the operation status when in use. The microphone can be attached and detached from the unit via a locking XLR-431 type connector. There shall be two optional microphone types available, standard length (518 mm) and a long reach (668 mm). The finish of the unit shall be of ABS resin in a matt black finish weighing 875 g (1.93 lb.) The dimensions of the unit shall be 208.9 (W) × 71.3 (H) × 160.5 (D) mm (8.22" × 2.81" × 6.32")

Extension Unit

- ❑ The extension unit shall be capable of increasing cable distances of up to fifty meters when using the digital conference system manufactured by TOA Corporation.
- ❑ The extension unit shall be able to connect between the master/substation units and the chairman/ delegate units at the end of a daisy chain configuration using standard CAT5e STP LAN cable. The system shall be connected using digital communication technology.
- ❑ The extension unit shall have two RJ45 microphone unit line in sockets with an AC power connector and a LED power indicator.
- ❑ Power requirement shall be 100-240 V AC, 50/60 Hz using the supplied AC power supply.
- ❑ The extension unit shall be finished in a white (RAL 9003 equivalent) ABS resin enclosure measuring 124.3 (W) x 100.3 (H) x 35 (D) mm (4.89" x 3.95" x 1.38") and weighing 150 g (0.33 lb.)

Microphone

- ❑ The ergonomically designed short stem microphone shall be able to simply plug into an associated chairman or delegate unit via the built-in XLR connector and shall have a frequency response of 100 Hz – 13 kHz with a sensitivity of -37dB.
- ❑ The microphone shall be of an electret condenser type that will provide optimum performance.
- ❑ The microphone shall have a red ring at the top that shall illuminate when active indicating its status to others.
- ❑ The microphone shall be finished with a black stainless steel gooseneck with an overall length of 518 mm (1.7') and shall weigh 110 g (0.24 lb.)

Microphone [Long]

- ❑ The ergonomically designed long stem microphone shall be able to simply plug into an associated chairman or delegate unit via the built-in XLR connector. The adjustable gooseneck shall be in two parts that will allow the user to position the microphone accordingly.
- ❑ The Microphone shall have a frequency response of 100 Hz – 13 kHz with a sensitivity of -37dB and shall be of an electret condenser type that will provide optimum performance.
- ❑ The microphone shall have a red ring at the top that shall illuminate when active indicating its status to others.
- ❑ The microphone shall be finished with a black stainless-steel gooseneck with an overall length of 668 mm (2.19') and shall weigh 125 g (0.28 lb.)

Master Control Unit

- ❑ The master control unit shall configure and control delegate and chairman units via standard CAT5e STP LAN cable and by a simple daisy chain topology shall be able to control up to 32 chairman and delegate units. It shall be possible to extend the number of delegate/chairman units to 246 by utilizing sub-control units, allowing full-integrated conference facilities.
- ❑ The system shall be easy to configure allowing the user quick and easy set up and disassembly.
- ❑ The master control unit shall employ an automatic FBS (feedback suppressor) function that will systematically eliminate acoustic feedback by a series of notch filters allowing optimum performance at all times.
- ❑ There shall be a NOM (Number of Open Microphones) facility allowing up to 2 chairmen and 8 delegates to participate simultaneously and a Mic auto-off function that will disable the microphone after 30 seconds if no signal is present. There also shall be an energy-saving function that will switch off the system after 2 hours of inactivity.
- ❑ The master control unit shall have recording facilities that will allow recordings to be made in MP3 format with a sampling frequency of 32 kHz with a 128 kbps bit rate and stored on an internal 1GB hard drive or an additional USB drive, there shall also be two mono RCA recording outputs. The master control unit shall also have PC control to facilitate custom control software as well as integration with other devices such as cameras.
- ❑ The master control unit shall employ a push and hold test function button that will confirm connectivity is correct and for additional monitoring purposes there shall be
- ❑ LED indication for the following: power, conference mode, number of open microphones, microphone auto-off, speaker monitor, connection test, external control, setting lock, recording status, USB access status, USB memory status, internal memory status, remaining USB memory capacity warning, internal memory capacity warning, LINK/ACT and 10BASE-T/100BASE-TX indicators. The master control unit shall also provide RCA sockets to facilitate an external graphic equalizer, videoconference, a line output jack socket for external amplifier and a headphone mini jack socket.
- ❑ Power requirement shall be 100-240 VAC, 50/60 Hz with a 60 W or less power consumption using the provided AC Power Supply.
- ❑ The master unit shall have the option of being a stand-alone unit or rack-mountable using optional brackets and shall use four EIA component rack spaces. Dimensions shall be 361 (W) x 100.4 (H) x 179.8 (D) mm (14.21" x 3.95" x 7.08") weighing 2.2 kg (4.85 lbs.) and finished in treated steel plate with black metallic paint.

Sub Control Unit

- ❑ The sub-control unit shall perform the task of expanding the amount of chairman and delegate units.
- ❑ Up to five sub-control units shall be able to connect to the master control station utilizing a standard CAT5e STP LAN cable allowing up to 48 chairman/delegate units to be used per each sub-control unit. The system shall be connected using digital communication technology.
- ❑ The sub-control unit shall provide three RJ45 ports for chairman/delegate units and two RJ45 sub-control for line ports making installation quick and easy.
- ❑ Power requirement shall be 100-240 VAC, 50/60 Hz with an 80 W or less power consumption using the provided AC power supply.
- ❑ The sub-control unit shall have the flexibility of being rack mounted utilizing one EIA component rack space using the optional mounting brackets.
- ❑ Dimensions of the sub-control unit shall be 210 (W) x 45.8 (H) x 294.8 (D) mm (8.27" x 1.8" x 11.61") and finished in a black surface-treated steel plate enclosure with a black aluminium front panel, and shall weigh 1.6 kg (3.53 lb.)

4.22.13 Conduit Installation

The Telecommunications Sub-contractor shall be responsible for the installation of their conduit and accessories. Provisions have been made in the “schedule of quantities”.

2.23 STAFF TRAINING

The Telecommunications Sub- contractor shall provide comprehensive training of male and female operational staff and nominated maintenance personnel, to the approval of the Consulting Electrical Engineers.

Training shall be comprehensive, covering all aspects of systems installed as part of these Works.

The Telecommunications Sub- contractor shall provide a detailed training programme and a copy of the training documentation to the Consulting Electrical Engineers, for comment and review, no less than 12 weeks prior to the commencement of training.

No training will commence on site prior to the written approval of the Consulting Electrical Engineers. Should the Consulting Electrical Engineers not approve the training programme and documentation, the training programme and documentation will be referred back to the Telecommunications Sub- contractor for re-evaluation and re-submission to the Consulting Electrical Engineers.

The number of staff to be trained is to the full discretion of the Client. However, the Telecommunications Sub-contractor shall allow for 2 groups, each of up to 4 personnel. Each group shall receive a minimum of two 2-hour training sessions. One of these sessions shall be held prior to the commissioning of the electrical engineering services installation, and the other of these sessions, upon expiry of the defects liability period.

Training shall be adequate to ensure that the groups trained are :

- ☐ competent in the operation of systems
- ☐ adequately trained to carry out on-going training
- ☐ fully aware of the location of all equipment installed as part of this Sub-contract within their area of responsibility

The names of personnel attending the training shall be recorded and submitted to the Consulting Electrical Engineers at the conclusion of training.

Maintenance staff shall demonstrate a complete understanding of the location and connectivity of the various elements of the electrical engineering services installation.

All training aids and course notes necessary to conduct effective operational and maintenance training shall be supplied by the Telecommunications Sub- contractor.

The training venue will be made available on site by the Client.

PART 3

STANDARD TECHNICAL SPECIFICATIONS

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(The afore-mentioned documentation has not been included in the Enquiry Document, but may be obtained from the offices of the Consulting Electrical Engineers.)

PART 4

SCHEDULE OF QUANTITIES

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PART 4

SCHEDULES OF QUANTITIES

GENERAL NOTES

1 Specifications

The Schedule of Quantities form part of the Tender Document and must be read in conjunction with the other parts forming the Tender Document in order to gain the full meanings of the descriptions of the work to be done and materials and equipment to be used.

2 Alterations

No alterations, erasure or addition is to be made in the text of the Schedule of Quantities. Should any alteration, erasure or addition be made, it will not be recognised but the original wording of the Schedule of Quantities will be adhered to.

3 Issue of Schedule of Quantities in Electronic Format

The Consulting Electrical Engineers will make the Schedule of Quantities available to Tenderers in electronic (Microsoft Excel Workbook) format, upon request.

If utilised for tender submission, the Tenderer will be responsible for ensuring the correctness of all calculations. The Consulting Electrical Engineers cannot be held responsible for any arithmetic inaccuracies in the electronic Schedule of Quantities.

4 Pages

Before submitting his Tender, the tenderer must check to ensure all pages have been included and are distinct. Should any obvious errors be found the Consulting Electrical Engineers is to be notified immediately to have them corrected as no liability whatsoever will be admitted by the Consulting Electrical Engineers in respect of errors in the Tender due to the foregoing.

5 Responsibility

The responsibility for the accuracy of the quantities written into the Schedule of Quantities remains with the person who prepared the Schedule of Quantities. The Tenderer shall be relieved of the responsibility of measuring quantities at the Tender stage, and the Tender Price submitted shall be in respect of the quantities set out in the Schedule of Quantities.

The Tenderer will be required to make his assessment of items such as brackets, fixings, etc., from details stated in the Schedule of Quantities and shall make allowances therefore within the rates tendered.

Tenderers shall make due allowance in their rates for any item of incidental or contingent work, labour and materials not contained in the Schedule of Quantities, but deemed necessary for the successful completion of the Works.

6 Unit Rates

Unless a separate rate for the supply and the installation of any item is specifically called for, the supply and installation costs of any items shall be fully included in the unit price.

The description of each item shall, unless otherwise stated herein, be held to include making, conveying and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, cutting and waste, patterns, models and templates plant, temporary works, return of water establishment charges, profit and all other obligations arising out of the Conditions of Contract.

7 Variations

Variations in the scope and extent of the work included in the Schedule of Quantities shall be allowed in order to meet the Client's requirements and shall be measured and costed at the rates entered in the Schedule of Quantities, where appropriate, forming an addition to or deduction from the total of the Schedule of Quantities. Any items or variations for which rates have not been added in the Schedule of Quantities shall be agreed and priced as non-scheduled items in accordance with the provisions of the contract.

The rules governing the extent and costing of the variations shall be those provided for in the Conditions of Contract and Variations to Sub-contract.

Variations to the planning before the work has been executed shall be priced as above. Alterations to work already executed cannot necessarily be priced as above and must be reviewed on its merits.

The appropriate portions of the Preliminary & General Costs are to be adjusted proportionately to the nett additions or omissions of the variations to the contract

8 Preliminary and General

Tenderers shall price the Preliminary & General under any or all of these groups, viz.:

- a) A fixed amount
- b) An amount varied in proportion to the final contract value as compared to the Tender Price
- c) An amount varied in proportion to the final contract period as compared to the originally specified contract period

The allocation of prices to the three categories listed above must be realistic and the Electrical Sub-contractor may be required to justify the allocation of the prices. Should no Preliminary & General Costs be entered against the variable items b) or c) above, no adjustment thereof shall be considered.

9 Provisional Sums

All Provisional Sums shall be expended only as directed by the Consulting Electrical Engineers and any balance remaining shall be deducted from the amount of the Sub-contract sum. No work for which Provisional Sums are provided shall be commenced without written instructions from the Consulting Electrical Engineers.

All Provisional Sums may be utilised in full or in part. These Provisional Sums may be deleted in full or in part if not required.

10 Contingency Sums

All Contingency Sums shall be expended only as directed by the Consulting Electrical Engineers. No work for which Contingency Sums are provided shall be commenced without written instructions from the Consulting Electrical Engineers.

All Contingency Sums may be utilised in full or in part. These Contingency Sums may be deleted in full or in part if not required.

11 Dayworks

The rates included for daywork shall not form part of the Tender Price, but Tenderers shall note that this item must be regarded as provisional and will only be payable to the Telecommunications Sub-contractor if and when a written order to this effect has been issued.

12 Value Added Tax

This Schedule of Quantities shall be priced nett, excluding VAT. VAT shall be added at the summary at the end of the Schedule of Quantities. The final price entered into the Tender Form shall be inclusive of VAT.

13 Adjustment

The Client reserves the right to adjust arithmetical errors in the extension of rates and totals in the Tender, and the Tenderer will be informed of the effect of any corrections on his Tender Sum prior to the award of the Contract. In no case will tendered rates be adjusted when correcting such errors.

In the event of there being tendered rates or prices which are declared by the Client to be unacceptable to him, because they are either excessively low or high or not in proper balance with other rates, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or prices objected to. If after submission of such evidence and any further evidence requested, the Client is still not satisfied with the tendered rates or prices objected to, he may request the Tenderer to amend these rates and prices along the lines indicated by him.

The Tenderer may or may not thereupon alter and amend the rates and prices objected to and such other related prices as are agreed to by the Client. Should the Tenderer fail to amend his Tender in a manner acceptable to the Client, or at all, it may prejudice his Tender.

In the case of Tenders with Schedule of Quantities, the total corrected Tender Price in the Tender Form shall constitute the Sub-contract Sum. Tenderers are advised to check their extensions and additions. In the case of a Lump Sum Tender, the original uncorrected Tender Price shall be considered. The Consulting Electrical Engineers shall negotiate adjustments to the rates tendered in order to correct the arithmetical extension or addition, whilst the Tender Price as submitted, remains unaltered.

In either case, the Tenderer shall be notified of any arithmetical error in his Tender, and shall be given the opportunity to withdraw the Tender at this stage.

14 Quantification

The successful Tenderer and the Client or his Agent may agree that the total of any Schedule, including any variations by way of additions thereto or deductions there from, represents a fair and accurate quantification of the items set out in the Schedule of Quantities and the parties may agree final payment on that basis. In the event of any dispute as to the quantities, the disputed item or items shall be adjusted where necessary.

15 Ordering

The quantities in this Schedule of Quantities shall not be used for ordering materials. The onus is on the successful Tenderer to order the correct quantities of materials as per the drawings.

16 Payment

The measurement and payment of Work done shall be made in accordance with the unit price rates, and rates of pay listed in the Schedule of Quantities. No payment will be made for any item of associated work not specifically detailed in the Schedule of Quantities.

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

PART C3.4 MECHANICAL SPECIFICATIONS



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EASTERN CAPE DEPARTMENT OF PUBLIC WORKS
IDUTYWA MAGISTRATE'S OFFICE :
REPAIRS AND RENOVATIONS TO THE EXISTING BUILDING
(WCS 054991)

PROJECT SPECIFICATION AND SCHEDULE OF QUANTITIES NOTES
FOR THE
MECHANICAL ENGINEERING SERVICES
(AIR-CONDITIONING AND VENTILATION INSTALLATION)
(MECHANICAL INSTALLATION)

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.....

Tenderer's Address :

.....

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February 2025

Our File : Public/ECE Projects/2023/2023-472/Tender/AC&V
Our Reference : Tender Document (AC&V)

Members:

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SAIMech, IPET, SAFHE, FPASA
Engineering Manager (Mechanical)

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DRAWING SCHEDULE

The following drawings are issued with this Tender Document :

M20246 - 2023 - 472 / 11 - 000 Air-conditioning and Ventilation Layout Revision H (Tender) (A0 for Scale)

PART 1

THE SCHEDULES

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PART 1A

PARTICULARS RELATING TO TENDERER

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building

Mechanical Engineering Services (Air-conditioning and Ventilation Installation)

1. The registered and trading names, physical and postal address, and contact numbers for the tendering entity.

Registered Name :

Trading Name :

Physical Address :

Postal Address :

Telephone No. :

Facsimile No. :

2. The full first and surnames of their partners and/ or directors and their domiciles and addresses.

Full Name (1) :

Address (1) :

Full Name (2) :

Address (2) :

Full Name (3) :

Address (3) :

3. The names and addresses of the local agents, firms, or representatives who are interested in any manner whatsoever in the tender.

Full Name (1) :

Address (1) :

Full Name (2) :

Address (2) :

4. Bank Details Bank Name :

Branch & Code :

Account Number :

Contact Person :

Telephone No. :

.....
Name

.....
Signature

.....
Date

PART 1B

VARIATIONS TO SUB-CONTRACT

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building

Mechanical Engineering Services (Air-conditioning and Ventilation Installation)

These rates are to be used in the event work is not readily measurable in terms of the attached Schedule of Quantities or Schedule of Rates

I / We agree that any variations to the agreement (not priced elsewhere in this Tender Document) will be priced strictly in accordance with the rates submitted below. The rates (exclusive of VAT) shall be calculated as specified below :

- Cost shall mean the nett cost of equipment or materials supplied to site with all discounts offered
- The labour rates shall include all personnel insurance costs, holidays with pay and travelling time payments, incentive bonuses and overtime premiums, except for overtime payment when overtime is authorised in writing by the Consulting Mechanical Engineers
- Percentage and labour rates shall include profits, overheads, financing, insurance, guarantee (with free maintenance) costs, engineering and management

1. for the supply of equipment over and above that originally required by the specifications and drawings Cost Plus _____ %
2. equipment deleted will be at the price entered in the price schedule or at the supplier's selling price, unless a fixed price for deletion of an item is specified elsewhere in the Tender Document
3. for substituted equipment, the percentage reflected in item (1) above will only apply to the difference in the supplier's price arising from the substitution

4. for the supply of all labour, charges will be levied at the selling rate (for normal time) of :

Foreman _____ per hour

Commissioning Engineers _____ per hour

Tradesman _____ per hour

Journeyman _____ per hour

Labourer _____ per hour

Other specialists / hour Cost Plus _____ %

5. If pricing by team work is the standard practise of the Air-conditioning and Ventilation Sub-contractor, the team shall comprise the following :

_____ persons / team members at _____ selling price per hour

6. Overtime rates

Night (after 19h00)	_____	times normal time
Saturday	_____	times normal time
Sunday and Public Holidays	_____	times normal time
Other (specify)	_____	times normal time

7. Transport charges

Car	_____	Rand per km
LDV (under 2 tonnes)	_____	Rand per km
Truck (between 2 and 5 tonnes)	_____	Rand per km
Other (specify)	_____	Rand per km

Name

Signature

Date

PART 1C

PRICE ADJUSTMENT SCHEDULE

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building

Mechanical Engineering Services (Air-conditioning and Ventilation Installation)

Does your Tender Price include forward cover for foreign exchange variations ?

The tenderer shall detail all adjustments to which the prices and rates listed in this Tender Document are to be subjected to.

The tenderer shall enter NIL hereunder if prices are not subject to adjustment.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Name

Signature

Date _____

Name	Signature	Date

PART 1E

SCHEDULE OF SUB-CONTRACTORS PROPOSED BY TENDERER

Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building

Mechanical Engineering Services (Air-conditioning and Ventilation Installation)

The Tenderer shall state hereunder the names and particulars of all Sub-contractors he proposes to employ on the Works. The Tenderer shall also define the duties and relevant experience of each Sub-contractor listed.

Name of Sub-contractor	Contact Numbers	Proposed Duties	Experience

Name

Signature

Date

PART 1F**SIMILAR INSTALLATIONS CARRIED OUT BY TENDERER**

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building

Mechanical Engineering Services (Air-conditioning and Ventilation Installation)

The Tenderer shall list below all similar works carried out by him including Client details and value of the Works. Failure to comply may invalidate the Tender.

Name of Contract	Year	Client	Consulting Engineers	Value (R)

 Name

 Signature

 Date

PART 1G

SCHEDULE OF WORK IN HAND

Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building

Mechanical Engineering Services (Air-conditioning and Ventilation Installation)

The Tenderer shall detail below all Work currently in progress.

Client	Project Details	Project Value (R)	Completion Date

Name

Signature

Date

PART 1H

SCHEDULE OF MATERIALS

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building

Mechanical Engineering Services (Air-conditioning and Ventilation Installation)

The Tenderer shall detail below all materials proposed in order to complete the Works specified. (Failure to complete this schedule may invalidate the tender submission).

Description

NB: Only one manufacturer's name to be inserted for each item.

1 Air-conditioning

1.1 Capacity

2.8 kW Cooling and Heating

Type

VRV / VRF 600x600 Cassette Unit

Quantity

Two (2)

Manufacture

Model Number

Cooling Capacity (kW)

Airflow (l/s)

Number of Phases / Voltage

Start Current / Running Current

Power Input (kW)

Country of Origin

1.2 Capacity

3.5 kW Cooling and Heating

Type

VRV / VRF 600x600 Cassette Unit

Quantity

Five (5)

Manufacture

Model Number

Cooling Capacity (kW)

Airflow (l/s)

Number of Phases / Voltage

Start Current / Running Current

Power Input (kW)

Country of Origin

1.3 Capacity

4.5 kW Cooling and Heating

Type

VRV / VRF 600x600 Cassette Unit

Quantity

One (1)

Manufacture

Model Number

Cooling Capacity (kW)

Airflow (l/s)

Number of Phases / Voltage

Start Current / Running Current

Power Input (kW)

Country of Origin

1.4 Capacity

5 kW Cooling and Heating

Type

VRV / VRF 600x600 Cassette Unit

Quantity

Four (4)

Manufacture

Model Number

Cooling Capacity (kW)
Airflow (l/s)
Number of Phases / Voltage
Start Current / Running Current
Power Input (kW)
Country of Origin

1.5 Capacity

Type
Quantity
Manufacture
Model Number
Cooling Capacity (kW)
Airflow (l/s)
Number of Phases / Voltage
Start Current / Running Current
Power Input (kW)
Country of Origin

11.5 kW Cooling and Heating

VRV / VRF Round Flow Cassette Unit
Four (4)

1.6 Capacity

Type
Quantity
Manufacture
Model Number
Cooling Capacity (kW)
Airflow (l/s)
Number of Phases / Voltage
Start Current / Running Current
Power Input (kW)
Country of Origin

14 kW Cooling and Heating

VRV / VRF Round Flow Cassette Unit
Four (4)

1.7 Capacity

Type
Quantity
Manufacture
Model Number
Cooling Capacity (kW)
Airflow (l/s)
Number of Phases / Voltage
Start Current / Running Current
Power Input (kW)
Country of Origin

3.5 kW Cooling and Heating

Inverter Split 600x600 Cassette Unit
Three (3)

1.8 Capacity

Type
Quantity
Manufacture
Model Number
Cooling Capacity (kW)
Airflow (l/s)
Number of Phases / Voltage
Start Current / Running Current
Power Input (kW)
Country of Origin

5 kW Cooling and Heating

Inverter Split 600x600 Cassette Unit
One (1)

2 Ventilation**2.1 Serving**

Type
 Quantity
 Manufacture
 Model Number
 Airflow (l/s)
 Number of Phases / Voltage
 Start Current / Running Current
 Static Pressure (Pa)
 Static Pressure (Pa)
 Filters
 Automatic Speed / Flow Controller
 Magnihelic Gauges
 Country of Origin

EAF-1

In-line Axial Extract Fan
 One (1)

2.2 Serving

Type
 Quantity
 Manufacture
 Model Number
 Airflow (l/s)
 Number of Phases / Voltage
 Start Current / Running Current
 Static Pressure (Pa)
 Country of Origin
 Filters

FAF-1

In-line Axial Supply Fan
 One (1)

2.3 Serving

Type
 Quantity
 Manufacture
 Model Number
 Airflow (l/s)
 Number of Phases / Voltage
 Start Current / Running Current
 Static Pressure (Pa)
 Country of Origin
 Filters

FAF-2

In-line Axial Supply Fan
 One (1)

2.4 Serving

Type
 Quantity
 Manufacture
 Model Number
 Airflow (l/s)
 Number of Phases / Voltage
 Start Current / Running Current
 Static Pressure (Pa)
 Country of Origin
 Filters

FAF-3 and FAF-4

In-line Axial Supply Fan
 Two (2)

2.5 Serving

Type
 Quantity

FAF-5

In-line Axial Supply Fan
 One (1)

Manufacture
Model Number
Airflow (l/s)
Number of Phases / Voltage
Start Current / Running Current
Static Pressure (Pa)
Country of Origin
Filters

2.6 Serving

Type
Quantity
Manufacture
Model Number
Airflow (l/s)
Number of Phases / Voltage
Start Current / Running Current
Static Pressure (Pa)
Country of Origin
Filters

FAF-6

In-line Axial Supply Fan
One (1)

Name

Signature

Date

PART 1I

SCHEDULE OF STAFF AVAILABLE

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building

Mechanical Engineering Services (Air-conditioning and Ventilation Installation)

The Tenderer shall provide a list of all staff (from senior personnel to labourers) that will be made available to perform any duties for and on behalf of the Tenderer on this project. The Tenderer may attach a company organigram for information purposes.

The Tenderer shall note that a competent Accredited Person registered as an Installation Electrician shall be responsible for the associated electrical Works.

Name	Designation	Experience	Qualification	Registration *

* This information shall be as appearing on the certificates as required in terms of the Occupational Health and Safety Act No 85 of 1993

Name

Signature

Date

PART 1J

AGREEMENT RELATING TO OCCUPATIONAL HEALTH & SAFETY ACT

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building

Mechanical Engineering Services (Air-conditioning and Ventilation Installation)

Agreement between the Principal Contractor and the Mandatory (hereinafter referred to as the Sub-contractor) as envisaged in Section 37 (2) of the Occupational Health and Safety Act No 85 of 1993 as amended.

Background Information :

1. The Occupational Health and Safety Act comprises Sections 1 to 50 and all unrepealed Regulations promulgated in terms of the former Machinery and Occupational Safety Act No 6 of 1983 as amended as well as any other Regulations which may be promulgated from time to time in terms of the new Act.
2. The Mandatory as defined in the Act may be an agent, a contractor or a sub-contractor. This shall not derogate from the Air-conditioning and Ventilation Sub-contractor's status as being the responsible employer on this particular Contract.
3. Section 37 of the Occupational Health and Safety Act has the potential of punishing Clients (Principals) for the unlawful acts or omissions of Contractors save where a written agreement has been concluded between the parties containing arrangements and procedures to ensure compliance with the said Act by the Air-conditioning and Ventilation Sub-contractor. This Agreement constitutes such a written agreement.
4. This sub-contract document forms an integral part of the Agreement.
5. To be able to perform in terms of the Agreement, Sub-contractors must be familiar with the relevant provisions of the Act.
6. The liability of the Air-conditioning and Ventilation Sub-contractor under this Agreement will commence on the day the site is handed over to the Air-conditioning and Ventilation Sub-contractor and terminate when the site is handed back to the Client.
7. Sub-contractors who intend to utilise the services of further Sub-Contractors are advised to conclude a similar Agreement with their Sub-Contractors.

I

representing (the Air-conditioning and Ventilation Sub-contractor)

hereby acknowledge that the Air-conditioning and Ventilation Sub-contractor is an employer in his own right with duties as prescribed in the Occupational Health and Safety Act No 85 of 1993 as amended. The Air-conditioning and Ventilation Sub-contractor undertakes to ensure that all work will be performed, and machinery and plant used, in accordance with the provisions of the said Act. The Air-conditioning and Ventilation Sub-contractor furthermore agrees to comply with the requirements of the Client as contained in the Contract documents and to liaise with the Client should he, for whatever reason, be unable to perform his duties in terms of this Agreement.

Signed at (place) on (date / month / year)

Signature on behalf of the Sub-contractor (the Mandatory)

Signature on behalf of Eastern Cape Department of Public Works (the Client)

PART 1K

CERTIFICATES REQUIRED

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building

Mechanical Engineering Services (Air-conditioning and Ventilation Installation)

The Tenderer shall submit proof of the following, namely :

Compulsory Documentation

1. Notice of Registered Office and Postal Address of Company, in terms of the Companies Act, 1973, including the Company Registration Document accompanied by Share Certificates, where applicable i.e. Cipro Certificate
2. Copies of the Identity Documents, for each of the respective Directors / Members / Partners / Shareholders/ Trustees, etc.
3. Tax Clearance Certificate, as issued by the South African Revenue Services
4. Accredited Valid Original or Certified B-BBEE Certificate
5. Declaration of Insurances : Workmen's Compensation Assurance
: Unemployment Insurance Fund
: Contractor's All Risks Insurance
6. Original Bank Stamped Letter or Cancelled Cheque as Proof of Bank Account
7. Licence of the Accredited Person registered as an Installation Electrician who will be responsible for the Works and the on-site supervision thereof (*where applicable*)
8. Licence of the Accredited Person registered as a Master Installation Electrician who will be responsible for the relevant portion of the Works and the on-site supervision thereof (*where applicable*)
9. Proof of registration of Company, and where applicable, the relevant persons, with the Private Security Industry Regulatory Authority (PSIRA) (*where applicable*)
10. Proof of registration of all persons who will be involved in this project with the South African Qualification & Certification Committee (SAQCC) for the Fire Industry (*where applicable*)
11. Proof of registration of Company with the Fire Detection Installers Association (FDIA) (*where applicable*)
12. Proof of registration as a "Gas Installer", in terms of the Government Gazette, number 32395, dated 15 July 2009, as amended (*where applicable*)
13. Proof of registration of Company with the Automatic Sprinkler Inspection Bureau (Pty) Ltd (ASIB) (*where applicable*)

Supplementary Documentation

14. Company Profile (Abridged Version)
15. Proof of Location of Office
16. Electrical Sub-contractors Association (ECA) Registration Certificate (for the associated electrical Works)
17. Proof of Central Supplier Database Registration

Name

Signature

Date

PART 1L**FORM OF RESOLUTION**

Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Mechanical Engineering Services (Air-conditioning and Ventilation Installation)

This form is to be completed in full by the Tenderer. Failure to do so may invalidate the Tender.

At a meeting held by the Directors / Members / Partners / Trustees of

_____ (Tenderer's Name)

at _____ (Place)

on the _____ (Day / Month / Year)

it was resolved

that _____

in his / her capacity as their _____

is hereby authorised and empowered to sign the Tender and / or Contract Documents for the project known as the

**“Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
 Mechanical Engineering Services (Air-conditioning and Ventilation Installation)”**

for and on behalf of the Tenderer.

Signed : _____ Signed : _____

Capacity : _____ Capacity : _____

PART 1M**SITE INSPECTION CERTIFICATE****Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building****Mechanical Engineering Services (Air-conditioning and Ventilation Installation)**

This form is to be completed in full by the Tenderer. Failure to do so may invalidate the Tender.

This is to certify that I / we _____

the representative (s) of _____ (Tenderer's Name)

_____ (address)

_____ telephone number

_____ facsimile number

certify that I / we have examined the site, drawings and tender documents and have made myself / ourselves fully conversant with all conditions and circumstances likely to influence the rates tendered.

Name of Tenderer's Representative _____

Signature of Tenderer's Representative _____

Name of Consulting Mechanical Engineers' Representative _____

Signature of Consulting Mechanical Engineers' Representative _____

PART 2

PROJECT SPECIFICATION

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PART 2

PROJECT SPECIFICATION

Any requirement or statement made in this Project Specification section of the specification shall override the requirements of Part 3 : Standard Specifications and the Drawings.

2.1 GENERAL

This specification covers all Works necessary for the mechanical engineering (air-conditioning and ventilation) services installation of the project known as the “Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building”.

The project generally comprises the following Works, namely :

- ❑ Alterations and refurbishment of the Idutywa Magistrate's Office building
- ❑ Construction of a Decanting Site for the temporary Magistrate’s Office
- ❑ the above building Works generally include brick / dry walls, existing concrete slabs and floors, sheet vinyl / carpet / porcelain tile flooring, painted / tiled surfaces, suspended exposed “T” / flush plastered ceilings, etc.

This sequencing of the Works and the “unofficial” sectional completion requirements will be negotiated by the Client, Professional Team, Principal Contractor and the successful Tenderer.

The proposed base sequencing of the Works is as follows:

Decanting (Phase 1)

- ❑ Phase 1A – Addition of park homes (Offices) to the respective site as instructed
- ❑ Phase 1B – Moving of staff/equipment to temporary offices

Refurbishment to Existing Magistrate Offices (Phase 2)

- ❑ Phase 2 - Refurbish and Alterations to entire Building / Site

The Tenderer’s attention is specifically drawn to the fact that at Practical Completion the completion of specific sections must be such that the Client can actually move into the premises and commence conventional operational Office and Court activities.

Thus, programming for the Works must allow for the systematic clearance of all outstanding work and defects (save only latent defects) prior to the “Sectional” and “Practical” Completion circumstances required. The Works to be cleared are to include all electrical and mechanical installations including commissioning procedure and certificates of compliance etc., in addition to the building works.

Any works to the exterior of the building which do not impact on the conventional operational Forensic -related activities could be exempted from this requirement regarding “Sectional” and “Practical” Completion.

2.2 SCOPE OF WORK

2.2.1 Principle Items of Work

The principle items of Work covered by this Sub-contract comprises the supply, delivery, installation, testing, commissioning and twelve (12) months guarantee (with free maintenance during the guarantee period) of the complete Works involved in the mechanical engineering (air-conditioning and ventilation) services installation, as further detailed below, namely :

- ❑ Preliminary & general items
- ❑ Removal / repositioning of existing air-conditioning and ventilation systems etc.
- ❑ Supply and installation of air-cooled VRV / VRF / heat recovery air-conditioning systems including pipe-work, controls, drains, refrigerant piping, ducting, etc.
- ❑ Supply and installation of air-cooled Inverter Split air-conditioning systems including pipe-work, controls, drains, refrigerant piping, ducting, etc.

- ❑ Supply and installation of ventilation systems to ablutions, offices and general kitchen areas, inclusive of fans, attenuators, extraction / supply discs, ducting, filters, weather louvers, etc.
- ❑ Supply and installation of filtered air ventilation systems, including fans, attenuators, ducting, controls, drains, magnihelic gauges, primary, hepa filters, disc valves, louvers, etc.
- ❑ Servicing, testing and commissioning of existing ventilation systems including balancing of flows
- ❑ Supply and installation of fire dampers and passive fire protection methods to newly constructed fire walls
- ❑ Provisional Sums as detailed in the Schedule of Quantities
- ❑ Provision of Record Drawings and Operating and Maintenance manuals
- ❑ Provision of Certificates of Compliance for complete installation covered in this specification
- ❑ All other materials, equipment, labour and services necessary for the complete, safe and efficient operation of the Works in full accordance with the specifications as detailed in the “Project Specification”
- ❑ Maintenance during the twelve (12) months defects liability period i.e. if, during the defects liability period, the air-conditioning and ventilation installation is not in working order for any reason for which the Air-conditioning and Ventilation Sub-contractor is responsible, or if the installation develops any defects, the Air-conditioning and Ventilation Sub-contractor shall immediately upon being notified thereof take steps to remedy the defects

2.2.2 Works to be carried out by Others

The Principal Contractor, who is yet to be appointed, shall be appointed for the building Works, as briefly explained in Clause 2.1.

The successful Air-conditioning and Ventilation Sub-contractor shall be appointed as a Selected Sub-contractor to the appointed Principal Contractor.

The Air-conditioning and Ventilation Sub-contractor will be responsible for ensuring that the air-conditioning and ventilation sub-contract Works is completed in accordance with Principal Contract, with the necessary co-ordination between the parties.

The Principal Contractor shall, under separate contracts, employ various other parties for the supply, installation, testing and commissioning of various specialist equipment installations i.e. but not limited to, the following :

- ❑ Supply and installation of access control (including intercom and door security) installation, which shall be carried out by the Access Control Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of closed-circuit television installation, which shall be carried out by the Closed Circuit Television Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of early warning detection and alarm installation, which shall be carried out by the Early Warning Detection and Alarm Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of the electrical installation, which shall be carried out by an Electrical Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of fire protection services installation, which shall be carried out a Fire Protection Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of generator installation, which shall be carried out a Generator Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of hot and cold-water services installation, which shall be carried out by the Plumbing Sub-contractor, appointed as a Domestic Sub-contractor to the Principal Contractor
- ❑ Supply and installation of the kitchen equipment installation, which shall be carried out by Kitchen Equipment Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of a medical gas installation, which shall be carried out by a Medical Gas Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor
- ❑ Supply and installation of specialist telecommunications services (where applicable) i.e. telephone and data, emergency bell and nurse-call, access control and door security, intercom, closed circuit television, radio, public address, television and television aerial services installations, etc. which shall be carried out by respective Sub-contractors, appointed as either Domestic Sub-contractors to the Electrical Sub-contractor (conduits, wireways, power supplies, etc. by the Electrical Sub-contractor)
- ❑ Supply and installation of specialist equipment, furniture, fittings and appliances, appointed either as Domestic, Nominated or Selected Sub-contractors to the Principal Contractor

The Air-conditioning and Ventilation Sub-contractor shall work in close liaison with the appointed Contracting Parties.

2.3 INSPECTION OF SITE

The Consulting Mechanical Engineers will not hold a compulsory site inspection meeting.

The prospective Tenderers are advised to thoroughly acquaint themselves with the nature and extent of Work to be done and to make allowance for items obviously intended and necessary for the proper completion of the Works, although not specified.

By submitting a tender, it is accepted that the Tenderer is fully aware of all site conditions as well as the access to it, and has allowed for this in their Tender Price. Claims due to lack of knowledge will not be entertained.

2.4 SITE CONDITIONS

2.4.1 Location and Description

Decanting Site : The site is situated in Streatfield Street, Idutywa.

Main Site : The site is situated on Corner of N2 and market Street, Idutywa.

2.4.2 Existing Services

There are known and unknown existing electrical and mechanical services on site. Therefore, the Air-conditioning and Ventilation Sub-contractor shall take the necessary precaution.

The Principal Contractor shall provide a temporary water connection to the construction site for use by all Contracting Parties.

The Principal Contractor shall provide a temporary electricity connection to the construction site for use by all Contracting Parties.

The Principal Contractor shall provide temporary toilet facilities to the construction site for use by all Contracting Parties.

Coverage from the main cellular phone communications networks is available on site.

2.5 COMPLIANCE WITH REGULATIONS, STANDARDS AND CODES

The entire installation shall be in full conformity with the current versions of the following :

- ☐ South African National Standard : SANS 10400 - 2010 - Code of Practice for “The Application of the National Building Regulations” i.e. those included in the “National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977)”, as published in the Government Gazette, number 31084, dated 30 May 2008, which became effective as of 01 October 2008
- ☐ South African National Standard : SANS 10142-1: 2003 - The Wiring of Premises : Part 1 - Low-voltage Installations
- ☐ South African National Standard : SANS 10147: 2014 – Refrigeration Systems, including Plants associated with Air-conditioning Systems
- ☐ Relevant parts of the British Standard : EN 12101 - Smoke and Heat Control Systems
- ☐ Occupational Health and Safety Act, 1993 (Act 85 of 1993)
- ☐ Any other relevant by-laws of the Local Authorities

Further, the Air-conditioning and Ventilation Sub-contractor shall adhere to all the relevant regulations, standards and codes specified in Part 2 of this Tender Document.

All apparatus, components, parts, fittings and materials supplied and / or installed, whether specifically specified herein or not, shall conform in respect of quality, manufacture, tests and performance with the requirements of the

appropriate current South African (SABS) or British Standard Specifications (BS) and Addenda thereto, except where otherwise required by this specification or permitted by approval of the Consulting Mechanical Engineers, in writing.

All materials and workmanship, which may, in the opinion of the Consulting Mechanical Engineers, be inferior to that specified for the Work, will be condemned. All condemned material and workmanship must be replaced or rectified as the case may be, to the satisfaction of the Consulting Mechanical Engineers.

Any fitting or item of equipment not specifically mentioned but obviously necessary for the successful completion of the installation is to be included so as to form a complete working installation.

2.6 SUPERVISION

The Work shall at all times, for the duration of the contract, be carried out under the supervision of a competent representative of the Air-conditioning and Ventilation Sub-contractor, who should also be registered with the South African Qualification & Certification Committee (SAQCC) for the Gas Industry.

The associated electrical Works shall at all times, for the duration of the contract, be carried out under the supervision of a competent representative of the Air-conditioning and Ventilation Sub-contractor, who should also be an Accredited Person registered as an Installation Electrician in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended.

Furthermore, and where applicable, the associated smoke extraction Works shall at all times, for the duration of the contract, be carried out under the supervision of a competent representative of the Air-conditioning and Ventilation Sub-contractor, who should also be an Accredited Person registered as Smoke Extraction / Ventilation Installer in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended.

The afore-mentioned representatives of the Air-conditioning and Ventilation Sub-contractor shall be able and authorised to receive and carry out instructions on behalf of the Air-conditioning and Ventilation Sub-contractor.

2.7 PROGRAMME

Please refer to main contractor document for the relevant programme.

2.8 SAMPLES AND ALTERNATIVES

The preferred manufacturer / makers of equipment and / or material are as described in either the Project Specification, the Standard Technical Specifications or as listed in the Schedule of Quantities.

The Client reserves the right to specify the equipment and / or materials utilised in the Works. No alternatives to equipment and / or materials are to be used unless written approval is obtained from the Client, or his Representative and / or the Consulting Mechanical Engineers.

2.9 DEFINITIONS

- ☐ Supply : To purchase, procure and deliver complete with all related specified accessories
- ☐ Erect : To place or mount and fix in position
- ☐ Install : To erect, connect up and commission, complete with related accessories
- ☐ Indicated shown, Noted : As indicated or shown on drawings
- ☐ Approved, Alternative : Approved in writing by the Consulting Mechanical Engineers
- ☐ Similar, Equal : Equal or better in efficiency of performance and compatibility

2.10 CONFLICT BETWEEN SPECIFICATIONS, SCHEDULE OF QUANTITIES AND DRAWINGS

Should there be conflict between the Project Specifications, Schedule of Quantities, Drawings and / or Standard Technical Specifications, the sections shall be considered in the following order of priority :

- ☐ Project Specifications
- ☐ Schedule of Quantities
- ☐ Drawings
- ☐ Standard Technical Specifications

Should the Air-conditioning and Ventilation Sub-contractor note an inconsistency between the Project Specifications, Schedule of Quantities, Drawings and / or Standard Technical Specifications, he shall notify the Consulting Mechanical Engineers immediately and obtain clarification or instructions prior to ordering or installing equipment.

2.11 DEVIATIONS FROM TENDER DOCUMENTS

No deviations or alterations from that of the specification, schedules or drawings shall be made without first obtaining the written approval of the Department.

2.12 DRAWINGS

Refer to the Drawing Schedule for the list of drawings relating to this Tender Document.

At no time is the Air-conditioning and Ventilation Sub-contractor to scale drawings or to make any assumptions regarding measurements / dimensions. If in doubt, the Air-conditioning and Ventilation Sub-contractor is to obtain clarification from the Consulting Mechanical Engineers.

2.13 MOVING OF EQUIPMENT

The Air-conditioning and Ventilation Sub-contractor shall investigate each space through which equipment must be moved. Where necessary, equipment shall be transported in sections of size suitable for moving through spaces available.

2.14 MISCELLANEOUS

2.14.1 Labels

Labels shall be installed as required in terms of the relevant codes of practice and as further specified in this Tender Document.

All labels shall be in English with capital letters, in black and on a white background, and a minimum of 4 mm in height. All labels shall be of ivory or plastic construction and riveted / screwed in place.

2.14.2 Safety Signage

The Air-conditioning and Ventilation Sub-contractor shall supply and install all danger, sub-station and safety notices and signs in terms of the relevant regulations.

All safety signage installed shall be in accordance with SABS 1186.

2.15 INSTALLATION DRAWINGS

Drawings shall be submitted in triplicate as soon as possible after the signing of the Sub-contract Agreement, but in ample time to allow the Consulting Mechanical Engineers to examine and approve before equipment manufacture is started, or material delivered to site.

Should the Consulting Mechanical Engineers require that any drawing be amended, the Air-conditioning and Ventilation Sub-contractor shall make the necessary alterations and re-submit the drawing within two weeks.

The Air-conditioning and Ventilation Sub-contractor shall provide the Principal Contractor and the Consulting Mechanical Engineers with complete layout, installation and shop drawings, together with any necessary descriptions and specifications. Sufficient details shall be given to permit a full appraisal of all parts of the installation and their relation to the building structure.

Drawings shall give full details of all foundations, ducts, chases, pits and openings and shall set out all lines and levels for the work.

Delays caused by the submission of drawings or by an error, omission or inadequacy in these drawings, shall not be considered a reason for an extension of the Sub-contract time.

2.16 PAYMENT VALUATIONS

The Air-conditioning and Ventilation Sub-contractor shall be entitled to submit monthly payment claims to the Principal Contractor. The payment claims are to be submitted to the Consulting Mechanical Engineers for approval and recommendation, prior to submission to the Principal Contractor.

The payment claim shall be in the form of a copy of the Schedule of Quantities, indicating the tendered, claimed (supplied, installed and materials on / off site) and anticipated completion quantities, rates and values.

2.17 VARIATION ORDERS

Variations orders shall be ordered and processed either by the issue of a revised drawing or by issue of a site instruction, by a duly authorised person.

The Air-conditioning and Ventilation Sub-contractor shall ensure that the above procedures have been followed prior to carrying out any work. Failure to comply may invalidate any claim for work done.

Unless otherwise agreed with the Consulting Mechanical Engineers, all claims for variation orders shall be approved prior to proceeding with the relevant Works. The Air-conditioning and Ventilation Sub-contractor shall submit variation order claims to the Consulting Mechanical Engineers for approval with the preceding monthly payment claim.

However, the Air-conditioning and Ventilation Sub-contractor shall only include the value of approved variation orders in any payment claim or invoice, once approved in writing by the Consulting Mechanical Engineers. Variation order claims, which have not been approved, but are included in the monthly payment claim, will be deducted from the payment claim in question.

2.18 ACCEPTANCE, TESTING AND COMMISSIONING

The Air-conditioning and Ventilation Sub-contractor shall carry out all tests required in terms of the relevant Acts, SABS Codes of Practice and Local Authority requirements. The Air-conditioning and Ventilation Sub-contractor shall provide all the equipment and apparatus required for the purpose of carrying out all necessary tests.

The Air-conditioning and Ventilation Sub-contractor is responsible for carrying out all necessary tests and obtaining all necessary certificates for the installation and operation of the plant.

If any part of the Works fails the test, the Air-conditioning and Ventilation Sub-contractor shall be responsible for rectifying, at his own cost, the defective Works and the re-testing thereof to ensure compliance. If in consequence, the Consulting Mechanical Engineers are obliged to attend the further acceptance tests the additional costs incurred by the Engineers shall be payable by the Air-conditioning and Ventilation Sub-contractor.

The Works shall be deemed to be practically complete only when the Consulting Mechanical Engineers has approved all tests and inspections, and a Completion Advice Notice or other relevant completion notice is issued.

2.19 COMPULSORY FORMS AND CERTIFICATES

The Air-conditioning and Ventilation Sub-contractor shall submit the necessary commencement, compliance and completion forms for the installation as required in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended, the relevant SABS Specifications and the requirements of the relevant Supply Authorities.

2.20 OPERATING INSTRUCTIONS, MAINTENANCE MANUALS AND RECORD DRAWINGS

The Air-conditioning and Ventilation Sub-contractor shall supply, after approval by the Consulting Mechanical Engineers, three (3) bound sets of operating instructions, maintenance manuals and record drawings for the complete mechanical engineering services installation.

2.20.1 Operating Instructions and Maintenance Manual

Failure to submit these manuals will result in the delay of the final inspection and acceptance of the Works by the Client.

The manuals shall be prepared within the Contract, and shall be particular to the project. All charges that may be required by manufacturers' suppliers for the provision of information and literature shall be included in the contract price.

The manual shall be arranged with an index and referencing system and a matching flysheet giving the names and address of principals involved on the project.

The covers shall be hardbound with a four-post loose-leaf system. The Contract details shall be embossed on the front cover. Numbered card dividers shall be inserted between the sections.

The format of the manual shall be in accordance with the following sections, after a preface and index. Any other data considered by the Client to be pertinent shall also be included.

Section 1

This shall comprise the introduction, abbreviations, and any warnings that may be required by the Machinery and Occupational Safety Act, Local Authorities, and other bodies.

Section 2

A full description of each system, together with the main plant components and locations, plus the mode of operation of automatic control systems associated with such system shall be reflected in this section.

Section 3

This shall comprise the complete plant technical data of each item of control equipment (e.g. manufacturer's name and address, type of unit, serial number. This information shall be derived from a site inspection of identification plates together with information obtained from manufacturers.

Section 4

This section shall describe in detail the operating procedures necessary for starting up, running, and shutting down each individual system. This shall include the control panel starter and selection facilities together with any alarm and safety interlocks as identified on the control panel.

Section 5

This shall comprise the maintenance operations on a daily, weekly, monthly etc. basis for each item of plant. The preparation of this section shall be carried out by obtaining from the manufacturer his advice and recommendations for lubrication, adjustment and routine maintenance.

Section 6

This section shall comprise the emergency procedures to be adopted by personnel engaged on the operation and maintenance of the electrical and mechanical services with regard to fire, first aid, general failures, and call-out procedures during working hours and out of working hours.

Section 7

A recommended action on plant malfunction shall be detailed in this section. This is to assist both the user and maintenance engineer in the event of a fault developing in a system by indicating the nature of the fault and the recommended action.

Section 8

This shall comprise a list of recommended spares. The preparation of this section shall be carried out by obtaining the manufacturer's recommendations and also incorporate the Client's requirements regarding spares.

Section 9

A schedule of the record drawings or 'as-built' drawings for the new control systems shall be inserted in numerical order in this section. The drawings shall be bound into the manual.

Section 10

This section shall comprise test certificates and commissioning reports. It shall include reset schedules and temperature and pressure set points clearly for each item of control equipment.

Section 11

This shall comprise the manufacturers' literature, arranged in alphabetical order to match the list of manufacturers. The names of the manufacturers (or their local representatives), addresses, and telephone numbers shall also be given.

2.20.2 Record Drawings

A complete set of floor plans, in hard copy format, will be issued to the Air-conditioning and Ventilation Sub-contractor, for preparation of Record Drawings.

The Air-conditioning and Ventilation Sub-contractor shall prepare Record Drawings of the complete mechanical engineering services installation and return same to Consulting Mechanical Engineers.

2.21 DEFECTS LIABILITY PERIOD

The defects liability period shall be twelve (12) months, which shall commence with the issue of the Works Completion Certificate (or Completion Advice Notice) in respect of the fully commissioned Works, by the Consulting Mechanical Engineers.

With effect from the date of the Works Completion Certificate, and for the duration of the defect's liability period, the Air-conditioning and Ventilation Sub-contractor shall be responsible for all routine inspections, services and maintenance-related tasks that are specified for each component of the installation by the relevant Manufacturer / Supplier.

Furthermore, the Air-conditioning and Ventilation Sub-contractor shall be responsible for the carrying out of the following inspections, services and maintenance-related tasks, namely :

Three month interval :

- ☐ check system functions for normal operations
- ☐ check air filters and change if dirty
- ☐ check that electrical loads drawn are within normal parameters
- ☐ using manual control check the operation of the refrigeration circuit
- ☐ ensure that there are no signs of ice formation on the evaporator coils
- ☐ inspect all fuses and thermal overload devices
- ☐ ensure that there are no obstructions in the path of the air supply to and from the unit
- ☐ check the condensate pipe for blockages
- ☐ check the operation of the compressor and consumption of current is normal
- ☐ inspect the fan motor(s) and bearings and condenser coil, cleaning dirt from between fins if necessary

Six month interval :

- ☐ all items listed above
- ☐ check fan speed
- ☐ ensure display panel lights and/or controls are functioning correctly

Nine month interval :

- ☐ all items listed in the Three-month interval above

Twelve month interval :

- ☐ all items listed above
- ☐ inspect fans, check that direction of rotation is correct and that bearings are not running hot
- ☐ check mains voltage
- ☐ check the surface temperature of the compressor housing
- ☐ check insulation on suction tubing

The Air-conditioning and Ventilation Sub-contractor shall ensure that the inspections, services and maintenance-related tasks are undertaken at intervals not greater than three months.

The Air-conditioning and Ventilation Sub-contractor shall ensure that each inspection, service and / or maintenance-related task is undertaken in the presence of a representative of either the Consulting Mechanical Engineers or the Client.

The Air-conditioning and Ventilation Sub-contractor shall ensure that the necessary documentation is completed and submitted to the Consulting Mechanical Engineers confirming the completion of the relevant tasks after each and every inspection, service and / or maintenance-related task milestone.

The Air-conditioning and Ventilation Sub-contractor shall also timeously attend to any defects, which may occur through the normal operation of the Works.

If, during the defects liability period, the installation is not in working order for any reason for which the Air-conditioning and Ventilation Sub-contractor is responsible, or if the respective installation develops a defect, the Air-conditioning and Ventilation Sub-contractor shall, immediately upon being notified thereof, take steps to remedy the defects and make any necessary adjustments.

Should such stoppages, however be so frequent as to become troublesome, or should the installation otherwise prove unsatisfactory during the said period the Air-conditioning and Ventilation Sub-contractor shall, if called upon by the Consulting Mechanical Engineers, at his own expense replace the whole of the installation, or such parts thereof, as the Consulting Mechanical Engineers may deem necessary with equipment specified by the Consulting Mechanical Engineers.

Upon completion of the defect's liability period, the Consulting Mechanical Engineers shall undertake the final inspection, service and / or maintenance-related task, as explained above and ensure that the necessary documentation is completed and submitted to the Consulting Mechanical Engineers on behalf of the Client.

2.22 DETAILED SCHEDULE OF WORK

The layouts of the air-conditioning units and ventilation fans are as indicated on the drawings included with the document. All parts of this installation shall require all equipment to be extensively cleaned for a hygienic system of operation.

2.22.1 Existing Air-conditioning Installations

There are existing split type air-conditioning units / systems on site. The systems are to be removed and handed over to the Client for possible reuse thereof.

2.22.2 VRV Air-conditioning Installation

VRV type air-conditioning units shall include indoor, outdoor units, multiconnection boxes, refrigerant pipes, fittings etc. for a complete working system.

2.22.2.1 VRV Mid-wall Units

VRV mid-wall units shall provide heating and cooling to a capacity (kW) as stated in the schedule of quantities and drawings attached.

The drain from the unit shall be connected to a nearest suitable drain point and shall have a fall of not less than 1:100 and be adequately supported (No bowing of the drains will be entertained).

All controllers are to be wired type and programmable (to lock temperature settings). The controllers shall be mounted adjacent the light switch position in the room or as confirmed with the Consulting Mechanical Engineer.

All chasing for the flush installation of drains and controls must be done before plastering of walls.

All refrigerant piping that is routed internally, shall be surface mounted and shall be enclosed in PVC trunking.

Refrigerant piping run in ceiling voids or externally shall be run in neatly erected, supported galvanized sheet metal trunking. External trunking shall be painted to architects' colour.

2.22.2.2 VRV Round Flow Cassette Units / Fully Flat Cassette Units (600 x 600)

VRV cassette units shall provide heating and cooling to a capacity (kW) as stated in the schedule of quantities and drawings attached.

The drain from the unit shall be connected to a nearest suitable drain point and shall have a fall of not less than 1:100 and be adequately supported (No bowing of the drains will be entertained).

All controllers are to be wired type and programmable (to lock temperature settings). The controllers shall be mounted adjacent the light switch position in the room or as confirmed with the Consulting Mechanical Engineer.

All chasing for the flush installation of drains and controls must be done before plastering of walls.

All refrigerant piping that is routed internally, shall be surface mounted and shall be enclosed in PVC trunking.

Refrigerant piping run in ceiling voids or externally shall be run in neatly erected, supported galvanized sheet metal trunking. External trunking shall be painted to architects' colour.

2.22.2.3 VRV Ceiling Suspended Units

VRV cassette units shall provide heating and cooling to a capacity (kW) as stated in the schedule of quantities and drawings attached.

The drain from the unit shall be connected to a nearest suitable drain point and shall have a fall of not less than 1:100 and be adequately supported (No bowing of the drains will be entertained).

All controllers are to be wired type and programmable (to lock temperature settings). The controllers shall be mounted adjacent the light switch position in the room or as confirmed with the Consulting Mechanical Engineer.

All chasing for the flush installation of drains and controls must be done before plastering of walls.

All refrigerant piping that is routed internally, shall be surface mounted and shall be enclosed in PVC trunking.

Refrigerant piping run in ceiling voids or externally shall be run in neatly erected, supported galvanized sheet metal trunking. External trunking shall be painted to architects' colour.

2.22.2.4 VRV Concealed Ceiling Units

VRV concealed ceiling units shall provide heating and cooling to a capacity (kW) as stated in the schedule of quantities and drawings attached. 20% of fresh air shall be introduced to the return air with a natural anodized aluminium weather louver and plenum box with washable filters.

All internal ducting shall be externally insulated with 25mm foil faced fiberglass.

The return air plenum box installation shall include standard removable washable filters. The return air louvers shall be hinged white louvers including removable washable filters.

The drain from the unit shall be connected to a nearest suitable drain point and shall have a fall of not less than 1:100 and be adequately supported (No bowing of the drains will be entertained).

All controllers are to be wired type and programmable (to lock temperature settings). The controllers shall be mounted adjacent the light switch position in the room or as confirmed with the Consulting Mechanical Engineer.

All chasing for the flush installation of drains and controls must be done before plastering of walls.

All refrigerant piping that is routed internally, shall be surface mounted and shall be enclosed in PVC trunking.

Refrigerant piping run in ceiling voids or externally shall be run in neatly erected, supported galvanized sheet metal trunking. External trunking shall be painted to architects' colour.

2.22.3 Inverter Split Air-conditioning Installation

Inverter split type air-conditioning units shall include indoor, outdoor units, refrigerant pipes, fittings etc. for a complete working system.

2.22.3.1 Inverter Mid-wall Units

Inverter split mid-wall units shall provide heating and cooling to a capacity (kW) as stated in the schedule of quantities and drawings attached.

The drain from the unit shall be connected to a nearest suitable drain point and shall have a fall of not less than 1:100 and be adequately supported (No bowing of the drains will be entertained).

All controllers are to be wired type and programmable (to lock temperature settings). The controllers shall be mounted adjacent the light switch position in the room or as confirmed with the Consulting Mechanical Engineer.

All chasing for the flush installation of drains and controls must be done before plastering of walls.

All refrigerant piping that is routed internally, shall be surface mounted and shall be enclosed in PVC trunking.

Refrigerant piping run in ceiling voids or externally shall be run in neatly erected, supported galvanized sheet metal trunking. External trunking shall be painted to architects' colour.

2.22.3.2 Inverter Round Flow Cassette Units / Fully Flat Cassette Units (600 x 600)

Inverter split cassette units shall provide heating and cooling to a capacity (kW) as stated in the schedule of quantities and drawings attached.

The drain from the unit shall be connected to a nearest suitable drain point and shall have a fall of not less than 1:100 and be adequately supported (No bowing of the drains will be entertained).

All controllers are to be wired type and programmable (to lock temperature settings). The controllers shall be mounted adjacent the light switch position in the room or as confirmed with the Consulting Mechanical Engineer.

All chasing for the flush installation of drains and controls must be done before plastering of walls.

All refrigerant piping that is routed internally, shall be surface mounted and shall be enclosed in PVC trunking.

Refrigerant piping run in ceiling voids or externally shall be run in neatly erected, supported galvanized sheet metal trunking. External trunking shall be painted to architects' colour.

2.22.3.3 Inverter Ceiling Suspended Units

Inverter split cassette units shall provide heating and cooling to a capacity (kW) as stated in the schedule of quantities and drawings attached.

The drain from the unit shall be connected to a nearest suitable drain point and shall have a fall of not less than 1:100 and be adequately supported (No bowing of the drains will be entertained).

All controllers are to be wired type and programmable (to lock temperature settings). The controllers shall be mounted adjacent the light switch position in the room or as confirmed with the Consulting Mechanical Engineer.

All chasing for the flush installation of drains and controls must be done before plastering of walls.

All refrigerant piping that is routed internally, shall be surface mounted and shall be enclosed in PVC trunking.

Refrigerant piping run in ceiling voids or externally shall be run in neatly erected, supported galvanized sheet metal trunking. External trunking shall be painted to architects' colour.

2.22.3.4 Inverter Concealed Ceiling Units

Inverter split concealed ceiling units shall provide heating and cooling to a capacity (kW) as stated in the schedule of quantities and drawings attached. 20% of fresh air shall be introduced to the return air with a natural anodized aluminium weather louver and plenum box with washable filters.

All internal ducting shall be externally insulated with 25mm foil faced fiberglass.

The return air plenum box installation shall include standard removable washable filters. The return air louvers shall be hinged white louvers including removable washable filters.

The drain from the unit shall be connected to a nearest suitable drain point and shall have a fall of not less than 1:100 and be adequately supported (No bowing of the drains will be entertained).

All controllers are to be wired type and programmable (to lock temperature settings). The controllers shall be mounted adjacent the light switch position in the room or as confirmed with the Consulting Mechanical Engineer.

All chasing for the flush installation of drains and controls must be done before plastering of walls.

All refrigerant piping that is routed internally, shall be surface mounted and shall be enclosed in PVC trunking.

Refrigerant piping run in ceiling voids or externally shall be run in neatly erected, supported galvanized sheet metal trunking. External trunking shall be painted to architects' colour.

2.22.4 Refrigerant Piping

All refrigerant piping and associated insulation, that is routed internally, shall be surface mounted and shall be enclosed in PVC trunking.

The trunking shall be supplied complete with the corner pieces, junction pieces, covers and end-caps. Cutting and mitring shall not be acceptable.

The refrigerant used shall be of latest technology type refrigerants, R410A, etc.

All refrigerant piping run in ceiling voids or externally shall be run in neatly erected, supported galvanized welded wire mesh cable tray.

The cable tray shall be supplied complete with vertical and horizontal bends, tees, saddles and joiner clamps necessary to complete the installation.

2.22.5 Controls

All wired controls for air-conditioning unit are to be run in conduit and draw-boxes chased into the wall.

All controllers are to be programmable wired type (to lock temperature settings). The controllers shall be mounted adjacent the light switch position in the room or as confirmed with the Consulting Mechanical Engineer.

No joints shall be allowed in control wiring.

2.22.6 Louvres

All louvres shall be neatly fixed to frames, and in installations where they cannot be clipped in, they must be fitted with countersunk stainless-steel screws.

They shall be aluminium, epoxy powder coated to Architect's specification requirements.

2.22.7 Drains / Condensate

Provision shall be made for drainage from air-conditioning units to the nearest drain point provided.

The drain from the unit shall be connected to a nearest suitable drain point and shall have a fall of not less than 1:100 and be adequately supported (No bowing of the drains will be entertained).

Any drains run internally shall be chased into the wall and cast into the slabs or alternatives must be agreed with the Consulting Mechanical Engineer before the walls are plastered.

2.22.8 Outdoor Units

Outdoor units shall be wall mounted on approved galvanized steel brackets with rubber pads, properly braced and fixed and shall match the type / manufacture of the internal unit.

2.22.9 Design Criteria

□ Altitude	:	775 m (Above Sea Level)
□ External ambient	Summer	: 29.4 ° C DB, 23.9 ° C WB
	Winter	: 1.6 ° C
□ Indoor Design / Room conditions	:	22.5° C, ±2° C, 50% RH, ±5% RH

All air-conditioner and condenser units shall be of good quality with a minimum of 12 months warranty.

2.22.10 Existing Ventilation Systems

There are existing ventilation systems on site. The systems are to be removed and handed over to the Client for possible reuse thereof.

2.22.11 New Ventilation Systems

2.22.11.1 In-line Axial Extract Fans

The air extract ventilation system is by means of a ducted system run within the ceiling void. Axial extract air fan to the system is securely mounted to the roof slab / trusses, with an extraction flow and pressure stipulated in the Schedule of Quantities and attached drawings.

The axial extract fan shall either be a Silent Series type fan, or an axial extract fan including two off 1.5 D sound attenuators for a quiet running system (45db) as detailed. See table below. All connections between fan, attenuators and ducting shall include a rubber type collar to alleviate any noise transfer.

Ducting is to be galvanized un-insulated sheet metal inclusive of branch ducting and collars. All external ducting, fans, attenuators and fittings are to be corrosion resistant.

The system will discharge to external through a plenum box and a natural anodized aluminium weather louver, or galvanized un-insulated sheet metal cowl, as stipulated in the Schedule of Quantities and attached drawings.

Ducting is to be connected to the disc valves located in ceiling using flexible ducting.

2.22.11.2 In-line Axial Supply Fans

The air supply ventilation system is by means of a ducted system run within the ceiling void. Axial supply air fan to the system is securely mounted to the roof slab / trusses, with a supply flow and pressure stipulated in the Schedule of Quantities and attached drawings.

The axial supply fan shall either be a Silent Series type fan, or an axial extract fan including two off 1.5 D sound attenuators for a quiet running system (45db) as detailed. See table below. All connections between fan, attenuators and ducting shall include a rubber type collar to alleviate any noise transfer.

Ducting is to be galvanized un-insulated sheet metal inclusive of branch ducting and collars. All external ducting, fans, attenuators and fittings are to be corrosion resistant.

Fresh air will be supplied through a natural anodized aluminium weather louver, or a galvanized un-insulated sheet metal cowl as stipulated in the Schedule of Quantities and attached drawings, including a plenum box and removable washable filters.

Ducting is to be connected to the disc valves located in ceiling using flexible ducting.

2.22.11.3 Filtered Fan Extract Systems

The air extract ventilation system is by means of a ducted system run within the ceiling void. The filtered fan system shall be an extract fan filter unit, with an extract flow and pressure stipulated in the Schedule of Quantities and attached drawings (The pressure shown does not including pressure loss of fan filter unit, this is to be added in) complete with two stage filter unit, primary pleat filter and H14 Hepa Filter, (size to suite flow requirements) 99.998%.

Both Pleat and HEPA filters are to be equipped with safe change housing.

The fan system is to be a quiet running system (35-45db) as detailed. See table below.

The fan unit shall be wall or floor mounted on approved galvanized steel brackets with rubber pads, properly braced and fixed.

The unit is to be supplied with constant volume (EC type or similar approved) fans including automatic speed controller, controlled by the PC Modbus System (with potentiometers to adjust fan speed). Magnihelic gauges shall be supplied across the filters to monitor pressure differential.

The unit shall include red and green indication lamps, positioned on the ceiling at the entrance of the respective rooms, controlled by an air-flow switch, inclusive of necessary fittings, isolators, power supply, weather proof box, etc. for a complete monitoring system.

Ducting is to be well sealed (no leaks) galvanized un-insulated sheet metal inclusive of branch ducting and collars.

All external ducting, fans, attenuators and fittings are to be corrosion resistant.

Ducting is to be connected to the disc valves located in ceiling using flexible ducting.

2.22.11.4 Wall Mounted Fans

The air extract / supply ventilation system is by means of a wall / window mounted extract / supply fan. The air extract / supply air fan to the system is securely mounted to the wall / window with an extract / supply flow stipulated in the Schedule of Quantities and attached drawings.

2.22.11.5 Whirly Birds / Twister

Whirly Bird / Twister, size as indicated on Schedule of Quantities, shall be an Aluminium twister installed through the roof, including end caps around cut outs and back-flashing to protect the building from the external weather. The system shall be a waterproof system.

2.22.12 Wiring Duct Installation

Where applicable, the wiring duct shall be manufactured from pre-galvanized steel (Grade Z275), as manufactured by Cabstrut or O-Line. No alternatives shall be accepted.

The wiring duct shall be complete with all standard accessories i.e. PVC covers, splices, radiused and non-radiused internal and external elbows (bends), radiused and non-radiused horizontal elbows (bends), tee-offs, cross-overs, etc.

The wiring duct shall be supported on unistrut, suspended from roof trusses / roof slab by means of either galvanized steel threaded rods and / or stainless-steel hangers.

The wiring duct shall be of the size and colour specified in the Schedule of Quantities and / or on the construction drawings.

2.22.13 Wiring Mesh Installation

Where applicable, the wiring mesh shall be manufactured from pre-galvanized steel (Grade Z275), as manufactured by Cabstrut or O-Line. No alternatives shall be accepted.

The wiring mesh shall be complete with all standard accessories i.e. splices, radiused and non-radiused internal and external elbows (bends), radiused and non-radiused horizontal elbows (bends), tee-offs, cross-overs, etc.

The wiring mesh, if suspended, shall be supported on unistrut, suspended from the roof trusses / roof slab by means of either galvanized steel threaded rods and / or stainless-steel hangers, or if wall mounted, secured to the wall by means of unistrut, splice clamps, washer and M6 x 16 cup square bolt and nut arrangement.

The wiring mesh shall be of the size and colour specified in the Schedule of Quantities and / or on the construction drawings.

2.22.14 Quality of Work

The Consulting Mechanical Engineer shall have the right to visit the site at any reasonable time and inspect the progress of the work and materials used, and shall have the right to reject:

- ☐ Any work which in his opinion is not to specification or standard, and which is badly or incorrectly carried out
- ☐ Any materials which are considered not to specification or are of an inferior quality

2.22.15 Electrical Services

An Electrical Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor, will undertake the electrical services installation.

The Electrical Sub-contractor shall be responsible for the installation of all conduits, draw-boxes, draw-wires, distribution boards and / or power supplies, required for the air-conditioning and ventilation services as indicated on the construction drawings.

The sizes of all conduits are indicated on the drawings. 2 mm² polyester draw tape shall be installed in all conduits.

The Air-Conditioning and Ventilation Sub-contractor shall be responsible for the electrical works from the isolator (provided by the Electrical Sub-contractor) to and from the respective air-conditioning and ventilation systems, i.e.:

- ☐ From the provided isolator to the air-conditioning condenser and indoor units respectively
- ☐ From the provided isolator to the respective fans
- ☐ From the provided isolator to the respective MCC Panel and electrical works between the MCC Panel and respective fans

The Electrical Sub-contractor shall generally assist the Air-Conditioning and Ventilation Sub-contractor.

2.22.16 Noise Ratings Within Buildings

Description	Criteria for Continuous Noise Intrusion	
	NR Curve	Approx. dB (A)
Office Buildings:		
• General Open Offices, Reception Areas	40	45
• Conference Rooms / Therapy Rooms	30	35
• Executive Offices	35	40
• Foyers, Public Areas	45	50
• Typing & Machinist Rooms, Computer Rooms	45	40
• Kitchens, Sterilizing & Service Areas	45	50
• Surgery, Dental Clinics & Consulting Areas	40	45
• Waiting Rooms & Reception Area	45	45
Courts:		
• Court Environment	30	35

2.23 STAFF TRAINING

The Air-conditioning and Ventilation Sub-contractor shall provide comprehensive training of male and female operational staff and nominated maintenance personnel, to the approval of the Consulting Mechanical Engineers.

Training shall be comprehensive, covering all aspects of systems installed as part of these Works.

The Air-conditioning and Ventilation Sub-contractor shall provide a detailed training programme and a copy of the training documentation to the Consulting Mechanical Engineers, for comment and review, no less than 12 weeks prior to the commencement of training.

No training will commence on site prior to the written approval of the Consulting Mechanical Engineers. Should the Consulting Mechanical Engineers not approve the training programme and documentation, the training programme and documentation will be referred back to the Air-conditioning and Ventilation Sub-contractor for re-evaluation and re-submission to the Consulting Mechanical Engineers.

The number of staff to be trained is to the full discretion of the Client. However, the Air-conditioning and Ventilation Sub-contractor shall allow for 2 groups, each of up to 4 personnel. Each group shall receive a minimum of two 2-hour training sessions. One of these sessions shall be held prior to the commissioning of the mechanical engineering services installation, and the other of these sessions, upon expiry of the defects liability period.

Training shall be adequate to ensure that the groups trained are :

- ☐ competent in the operation of systems
- ☐ adequately trained to carry out on-going training
- ☐ fully aware of the location of all equipment installed as part of this Sub-contract within their area of responsibility

The names of personnel attending the training shall be recorded and submitted to the Consulting Mechanical Engineers at the conclusion of training.

Maintenance staff shall demonstrate a complete understanding of the location and connectivity of the various elements of the electrical engineering services installation.

All training aids and course notes necessary to conduct effective operational and maintenance training shall be supplied by the Air-conditioning and Ventilation Sub-contractor.

The training venue will be made available on site by the Client.

PART 3

STANDARD TECHNICAL SPECIFICATIONS

CONTENTS

ITEM	DESCRIPTION
SECTION HVAC 1	General
SECTION HVAC 2	Air Cooled Condensing Units
SECTION HVAC 9	Diffusers, Grilles, etc
SECTION HVAC 10	Ducting
SECTION HVAC 11	Electrical Wiring
SECTION HVAC 13	Fans
SECTION HVAC 21	Operating and Maintenance Instructions
SECTION HVAC 24	Painting
SECTION HVAC 25	Refrigeration Piping
SECTION HVAC 26	Sound Attenuators
SECTION HVAC 32	VRV-type Air-Conditioning Units

(The afore-mentioned documentation has not been included in the Enquiry Document, but may be obtained from the offices of the Consulting Mechanical Engineers.)

PART 4

SCHEDULE OF QUANTITIES

CONTENTS

ITEM	DESCRIPTION	PAGE
	General Notes	
1	Specifications	4.1
2	Alterations	4.1
3	Issue of Schedule of Quantities in Electronic Format	4.1
4	Pages	4.1
5	Responsibility	4.1
6	Unit Rates	4.1
7	Variations	4.2
8	Preliminary and General	4.2
9	Provisional Sums	4.2
10	Contingency Sums	4.2
11	Dayworks	4.2
12	Value Added Tax	4.2
13	Adjustment	4.3
14	Quantification	4.3
15	Ordering	4.3
16	Payment	4.3

PART 4

SCHEDULES OF QUANTITIES

GENERAL NOTES

1 Specifications

The Schedule of Quantities form part of the Tender Document and must be read in conjunction with the other parts forming the Tender Document in order to gain the full meanings of the descriptions of the work to be done and materials and equipment to be used.

2 Alterations

No alterations, erasure or addition is to be made in the text of the Schedule of Quantities. Should any alteration, erasure or addition be made, it will not be recognised but the original wording of the Schedule of Quantities will be adhered to.

3 Issue of Schedule of Quantities in Electronic Format

The Consulting Mechanical Engineers will make the Schedule of Quantities available to Tenderers in electronic (Microsoft Excel Workbook) format, upon request.

If utilised for tender submission, the Tenderer will be responsible for ensuring the correctness of all calculations. The Consulting Mechanical Engineers cannot be held responsible for any arithmetic inaccuracies in the electronic Schedule of Quantities.

4 Pages

Before submitting his Tender, the tenderer must check to ensure all pages have been included and are distinct. Should any obvious errors be found the Consulting Mechanical Engineers is to be notified immediately to have them corrected as no liability whatsoever will be admitted by the Consulting Mechanical Engineers in respect of errors in the Tender due to the foregoing.

5 Responsibility

The responsibility for the accuracy of the quantities written into the Schedule of Quantities remains with the person who prepared the Schedule of Quantities. The Tenderer shall be relieved of the responsibility of measuring quantities at the Tender stage, and the Tender Price submitted shall be in respect of the quantities set out in the Schedule of Quantities.

The Tenderer will be required to make his assessment of items such as brackets, fixings, etc., from details stated in the Schedule of Quantities and shall make allowances therefore within the rates tendered.

Tenderers shall make due allowance in their rates for any item of incidental or contingent work, labour and materials not contained in the Schedule of Quantities, but deemed necessary for the successful completion of the Works.

6 Unit Rates

Unless a separate rate for the supply and the installation of any item is specifically called for, the supply and installation costs of any items shall be fully included in the unit price.

The description of each item shall, unless otherwise stated herein, be held to include making, conveying and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, cutting and waste, patterns, models and templates plant, temporary works, return of water establishment charges, profit and all other obligations arising out of the Conditions of Contract.

7 Variations

Variations in the scope and extent of the work included in the Schedule of Quantities shall be allowed in order to meet the Client's requirements and shall be measured and costed at the rates entered in the Schedule of Quantities, where appropriate, forming an addition to or deduction from the total of the Schedule of Quantities. Any items or variations for which rates have not been added in the Schedule of Quantities shall be agreed and priced as non-scheduled items in accordance with the provisions of the contract.

The rules governing the extent and costing of the variations shall be those provided for in the Conditions of Contract and Variations to Sub-contract.

Variations to the planning before the work has been executed shall be priced as above. Alterations to work already executed cannot necessarily be priced as above and must be reviewed on its merits.

The appropriate portions of the Preliminary & General Costs are to be adjusted proportionately to the nett additions or omissions of the variations to the contract

8 Preliminary and General

Tenderers shall price the Preliminary & General under any or all of these groups, viz.:

- a) A fixed amount
- b) An amount varied in proportion to the final contract value as compared to the Tender Price
- c) An amount varied in proportion to the final contract period as compared to the originally specified contract period

The allocation of prices to the three categories listed above must be realistic and the Air-conditioning and Ventilation Sub-contractor may be required to justify the allocation of the prices. Should no Preliminary & General Costs be entered against the variable items b) or c) above, no adjustment thereof shall be considered.

9 Provisional Sums

All Provisional Sums shall be expended only as directed by the Consulting Mechanical Engineers and any balance remaining shall be deducted from the amount of the Sub-contract sum. No work for which Provisional Sums are provided shall be commenced without written instructions from the Engineers.

All Provisional Sums may be utilised in full or in part. These Provisional Sums may be deleted in full or in part if not required.

10 Contingency Sums

All Contingency Sums shall be expended only as directed by the Consulting Mechanical Engineers. No work for which Contingency Sums are provided shall be commenced without written instructions from the Engineers.

All Contingency Sums may be utilised in full or in part. These Contingency Sums may be deleted in full or in part if not required.

11 Dayworks

The rates included for daywork shall not form part of the Tender Price, but Tenderers shall note that this item must be regarded as provisional and will only be payable to the Air-conditioning and Ventilation Sub-contractor if and when a written order to this effect has been issued.

12 Value Added Tax

This Schedule of Quantities shall be priced nett, excluding VAT. VAT shall be added at the summary at the end of the Schedule of Quantities. The final price entered into the Tender Form shall be inclusive of VAT.

13 Adjustment

The Client reserves the right to adjust arithmetical errors in the extension of rates and totals in the Tender, and the Tenderer will be informed of the effect of any corrections on his Tender Sum prior to the award of the Contract. In no case will tendered rates be adjusted when correcting such errors.

In the event of there being tendered rates or prices which are declared by the Client to be unacceptable to him, because they are either excessively low or high or not in proper balance with other rates, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or prices objected to. If after submission of such evidence and any further evidence requested, the Client is still not satisfied with the tendered rates or prices objected to, he may request the Tenderer to amend these rates and prices along the lines indicated by him.

The Tenderer may or may not thereupon alter and amend the rates and prices objected to and such other related prices as are agreed to by the Client. Should the Tenderer fail to amend his Tender in a manner acceptable to the Client, or at all, it may prejudice his Tender.

In the case of Tenders with Schedule of Quantities, the total corrected Tender Price in the Tender Form shall constitute the Sub-contract Sum. Tenderers are advised to check their extensions and additions. In the case of a Lump Sum Tender, the original uncorrected Tender Price shall be considered. The Consulting Mechanical Engineers shall negotiate adjustments to the rates tendered in order to correct the arithmetical extension or addition, whilst the Tender Price as submitted, remains unaltered.

In either case, the Tenderer shall be notified of any arithmetical error in his Tender, and shall be given the opportunity to withdraw the Tender at this stage.

14 Quantification

The successful Tenderer and the Client or his Agent may agree that the total of any Schedule, including any variations by way of additions thereto or deductions there from, represents a fair and accurate quantification of the items set out in the Schedule of Quantities and the parties may agree final payment on that basis. In the event of any dispute as to the quantities, the disputed item or items shall be adjusted where necessary.

15 Ordering

The quantities in this Schedule of Quantities shall not be used for ordering materials. The onus is on the successful Tenderer to order the correct quantities of materials as per the drawings.

16 Payment

The measurement and payment of Work done shall be made in accordance with the unit price rates, and rates of pay listed in the Schedule of Quantities. No payment will be made for any item of associated work not specifically detailed in the Schedule of Quantities.



CONSULTING ELECTRICAL & MECHANICAL ENGINEERS
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**EASTERN CAPE DEPARTMENT OF PUBLIC WORKS
IDUTYWA MAGISTRATE'S OFFICE :
REPAIRS AND RENOVATIONS TO THE EXISTING BUILDING
(WCS 054991)**

**PROJECT SPECIFICATION AND SCHEDULE OF QUANTITIES NOTES
FOR THE
ELECTRICAL ENGINEERING SERVICES
(EARLY WARNING DETECTION INSTALLATION)
(ELECTRICAL INSTALLATION)**

Issued by :

**Eastern Cape Department of Public Works
7th floor PRD Building
Mthatha
5099**

**Telephone Number : (047) 502 7030
Facsimile Number : (-)**

Prepared by :

**Evans Consulting Engineers cc
17 Surrey Road
VINCENT
East London
5247**

**Telephone Number : (043) 721 3192
Facsimile Number : (086) 681 0657**

Tenderer's Name :

.....

Tenderer's Address :

.....

Telephone Number :

.....

Facsimile Number :

.....

Email Address :

.....

February 2025

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DRAWING SCHEDULE

2023 - 472 / GR -6- 000 Fire Detection Revision E (Tender)

PART 1

THE SCHEDULES

CONTENTS

PART	DESCRIPTION	PAGE
1A	Particulars Relating to Tenderer	1.1
1B	Variations to Sub-contract	1.2
1C	Price Adjustment Schedule	1.3
1D	Statement of Compliance or Qualification by Tenderer	1.4
1E	Schedule of Sub-contractors Proposed by Tenderer	1.5
1F	Similar Installations Carried out by Tenderer	1.6
1G	Schedule of Work	1.7
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PART 1A**PARTICULARS RELATING TO TENDERER**

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm Installation)**

1. The registered and trading names, physical and postal address, and contact numbers for the tendering entity.

Registered Name :

Trading Name :

Physical Address :

Postal Address :

Telephone No. :

Facsimile No. :

2. The full first and surnames of their partners and/ or directors and their domiciles and addresses.

Full Name (1) :

Address (1) :

Full Name (2) :

Address (2) :

Full Name (3) :

Address (3) :

3. The names and addresses of the local agents, firms, or representatives who are interested in any manner whatsoever in the tender.

Full Name (1) :

Address (1) :

Full Name (2) :

Address (2) :

2. Bank Details Bank Name :

Branch & Code :

Account Number :

Contact Person :

Telephone No. :

.....
Name

.....
Signature

.....
Date

PART 1B

VARIATIONS TO SUB-CONTRACT

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm Installation)**

These rates are to be used in the event work is not readily measurable in terms of the attached Schedule of Quantities or Schedule of Rates

I / We agree that any variations to the agreement (not priced elsewhere in this Tender Document) will be priced strictly in accordance with the rates submitted below. The rates (exclusive of VAT) shall be calculated as specified below :

- Cost shall mean the nett cost of equipment or materials supplied to site with all discounts offered
- The labour rates shall include all personnel insurance costs, holidays with pay and travelling time payments, incentive bonuses and overtime premiums, except for overtime payment when overtime is authorised in writing by the Consulting Electrical Engineers
- Percentage and labour rates shall include profits, overheads, financing, insurance, guarantee (with free maintenance) costs, engineering and management

1. for the supply of equipment over and above that originally required by the specifications and drawings Cost Plus _____ %
2. equipment deleted will be at the price entered in the price schedule or at the supplier's selling price, unless a fixed price for deletion of an item is specified elsewhere in the Tender Document

3. for substituted equipment, the percentage reflected in item (1) above will only apply to the difference in the supplier's price arising from the substitution

2. for the supply of all labour, charges will be levied at the selling rate (for normal time) of :

Foreman	_____	per hour
Commissioning Engineers	_____	per hour
Tradesman	_____	per hour
Journeyman	_____	per hour
Labourer	_____	per hour
Other specialists / hour	Cost Plus _____	%

5. If pricing by team work is the standard practise of the Contractor, the team shall comprise :

_____	persons / team members at	_____	selling price per hour
-------	---------------------------	-------	------------------------

4. Overtime rates

Night (after 19h00)	_____	times normal time
Saturday	_____	times normal time
Sunday and Public Holidays	_____	times normal time
Other (specify)	_____	times normal time

7. Transport charges

Car	_____	Rand per km
LDV (under 2 tonnes)	_____	Rand per km
Truck (between 2 and 5 tonnes)	_____	Rand per km
Other (specify)	_____	Rand per km

_____	_____	_____
Name	Signature	Date

PRICE ADJUSTMENT SCHEDULE

Does your Tender Price include forward cover for foreign exchange variations ?	YES		NO	
--	-----	--	----	--

The tenderer shall detail all adjustments to which the prices and rates listed in this Tender Document are to be subjected to.

The tenderer shall enter NIL hereunder if prices are not subject to adjustment.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Name _____

Signature

.....
Date

STATEMENT OF COMPLIANCE OR QUALIFICATION BY TENDERER

Does this Tender comply in every respect with the Conditions of Tender, Conditions of Contract, Schedules, Project Specifications, Schedule of Quantities and Drawings ?

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

If NO, detail qualifications hereunder. Failure to do so shall imply compliance.

Qualifications :

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Name

Signature

.....
Date

PART 1E

SCHEDULE OF SUB-CONTRACTORS PROPOSED BY TENDERER

**Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm Installation)**

The Tenderer shall state hereunder the names and particulars of all Sub-contractors he proposes to employ on the Works. The Tenderer shall also define the duties and relevant experience of each Sub-contractor listed.

Name of Sub-contractor	Contact Numbers	Proposed Duties	Experience

Name

Signature

Date

PART 1F

SIMILAR INSTALLATIONS CARRIED OUT BY TENDERER

**Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm Installation)**

The Tenderer shall list below all similar works carried out by him including Client details and value of the Works.
Failure to comply may invalidate the Tender.

Name of Contract	Year	Client	Consulting Electrical Engineers	Value (R)

Name

Signature

Date

PART 1G

SCHEDULE OF WORK IN HAND

Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm Installation)

The Tenderer shall detail below all Work currently in progress.

Client	Project Details	Project Value (R)	Percentage Complete (%)	Commencement and Completion Dates

Name

Signature

Date

PART 1H

SCHEDULE OF MATERIALS

Project Name : Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm Installation)

The Tenderer shall detail below all materials proposed in order to complete the Works specified. (Failure to complete this schedule may invalidate the tender submission).

Description		Manufacturer
Fire Alarm Panel		
Addressable two loop panel		
Addressable Detection Devices		
Combustion Gas Sensitive (Ionisation)		
Smoke Sensitive (Light Scattering) (Optical)		
Heat Sensitive (Rate of Temperature Rise)		
Beam Detectors		
Vesda Early Warning Unit		
Alarm Siren / Sounder		
Strobe Warning Light		
Break Glass		
Interface Unit		
Sequential Magnetic door release unit		
Fire Rated Cable		
Gas Suppression (System Details and Gas Type)		
Record Rooms		
Server Rooms		
Other		
Other		
Other		
Other		
Other		

PART 11

SCHEDULE OF STAFF AVAILABLE

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm Installation)**

The Tenderer shall provide a list of all staff (from senior personnel to labourers) that will be made available to perform any duties for and on behalf of the Tenderer on this project. The Tenderer may attach a company organigram for information purposes.

The Tenderer shall note that a competent Accredited Person registered as an Installation Electrician shall be responsible for the Works and present on site at all times.

Name	Position / Designation	Years of Relevant Experience	Qualification	Registration Number*

* These numbers shall be the those appearing on the certificates as required in terms of the Occupational Health and Safety Act No 85 of 1993

Name

Signature

Date

PART 1J**AGREEMENT RELATING TO OCCUPATIONAL HEALTH & SAFETY ACT**

**PROJECT NAME : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm System)**

Agreement between the Principal Contractor and the Mandatory (hereinafter referred to as the Sub-contractor) as envisaged in Section 37 (2) of the Occupational Health and Safety Act No 85 of 1993 as amended.

Background Information :

1. The Occupational Health and Safety Act comprises Sections 1 to 50 and all unrepealed Regulations promulgated in terms of the former Machinery and Occupational Safety Act No 6 of 1983 as amended as well as any other Regulations which may be promulgated from time to time in terms of the new Act.
2. The Mandatory as defined in the Act may be an agent, a contractor or a sub-contractor. This shall not derogate from the Contractors status as being the responsible employer on this particular Contract.
3. Section 37 of the Occupational Health and Safety Act has the potential of punishing Clients (Principals) for the unlawful acts or omissions of Contractors save where a written agreement has been concluded between the parties containing arrangements and procedures to ensure compliance with the said Act by the Contractor. This Agreement constitutes such a written agreement.
2. This Contract document forms an integral part of the Agreement.
5. To be able to perform in terms of the Agreement Contractors must be familiar with the relevant provisions of the Act.
4. The liability of the Contractor under this Agreement will commence on the day the site is handed over to the Contractor and terminate when the site is handed back to the Client.
7. Contractors who intend to utilise the services of Sub-Contractors and / or Nominated Sub-Contractors are advised to conclude a similar Agreement with their Sub-Contractors and / or Nominated Sub-Contractors.

I

representing (the Early Warning Detection and Alarm Sub-contractor)

hereby acknowledge that the Early Warning Detection and Alarm Sub-contractor is an employer in his own right with duties as prescribed in the Occupational Health and Safety Act No 85 of 1993 as amended. The Early Warning Detection and Alarm Sub-contractor undertakes to ensure that all work will be performed, and machinery and plant used, in accordance with the provisions of the said Act. The Early Warning Detection and Alarm Sub-contractor furthermore agrees to comply with the requirements of the Client as contained in the Contract documents and to liaise with the Client should he, for whatever reason, be unable to perform his duties in terms of this Agreement.

Signed at (place) on (date / month / year)

Signature on behalf of the Sub-contractor (the Mandatory)

Signature on behalf of Eastern Cape Department of Public Works (the Client)

PART 1K

CERTIFICATES REQUIRED

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm Installation)**

The Tenderer shall submit proof of the following, namely :

Compulsory Documentation

1. Notice of Registered Office and Postal Address of Company, in terms of the Companies Act, 1973, including the Company Registration Document accompanied by Share Certificates, where applicable i.e. Cipro Certificate
2. Copies of the Identity Documents, for each of the respective Directors / Members / Partners / Shareholders/ Trustees, etc.
3. Tax Clearance Certificate, as issued by the South African Revenue Services
4. Accredited Valid Original or Certified B-BBEE Certificate
5. Declaration of Insurances : Workmen's Compensation Assurance
: Unemployment Insurance Fund
: Contractor's All Risks Insurance
6. Original Bank Stamped Letter or Cancelled Cheque as Proof of Bank Account
7. Licence of the Accredited Person registered as an Installation Electrician who will be responsible for the Works and the on-site supervision thereof (*where applicable*)
8. Licence of the Accredited Person registered as a Master Installation Electrician who will be responsible for the relevant portion of the Works and the on-site supervision thereof (*where applicable*)
9. Proof of registration of Company, and where applicable, the relevant persons, with the Private Security Industry Regulatory Authority (PSIRA) (*where applicable*)
10. Proof of registration of all persons who will be involved in this project with the South African Qualification & Certification Committee (SAQCC) for the Fire Industry (*where applicable*)
11. Proof of registration of Company with the Fire Detection Installers Association (FDIA) (*where applicable*)
12. Proof of registration as a "Gas Installer", in terms of the Government Gazette, number 32395, dated 15 July 2009, as amended (*where applicable*)
13. Proof of registration of Company with the Automatic Sprinkler Inspection Bureau (Pty) Ltd (ASIB) (*where applicable*)

Supplementary Documentation

14. Company Profile (Abridged Version)
15. Proof of Location of Office
16. Electrical Sub-contractors Association (ECA) Registration Certificate (for the associated electrical Works)
17. Proof of Central Supplier Database Registration

Name	Signature	Date

PART 1L**FORM OF RESOLUTION**

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm Installation)**

This form is to be completed in full by the Tenderer. Failure to do so may invalidate the Tender.

At a meeting held by the Directors / Members / Partners / Trustees of

..... (Tenderer's Name)

at (Place)

on the (Day / Month / Year)

it was resolved

that

in his / her capacity as their

is hereby authorised and empowered to sign the Tender and / or Contract Documents for the project known as the

**“Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm Installation)”**

for and on behalf of the Tenderer.

Signed : Signed :

Capacity : Capacity :

PART 1M**SITE INSPECTION CERTIFICATE**

**Project Name : Idutywa Magistrate's Office: Repairs and Renovations to the Existing Building
Electrical Engineering Services (Early Warning Detection and Alarm Installation)**

This form is to be completed in full by the Tenderer. Failure to do so may invalidate the Tender.

This is to certify that I / we _____
 the representative (s) of _____ (Tenderer's Name)
 _____ (address)
 _____ telephone number
 _____ facsimile number

certify that I / we have examined the site, drawings and tender documents and have made myself / ourselves fully conversant with all conditions and circumstances likely to influence the rates tendered.

Name of Tenderer's Representative _____

Signature of Tenderer's Representative _____

Name of Consulting Electrical Engineers' Representative _____

Signature of Consulting Electrical Engineers' Representative _____

PART 2

PROJECT SPECIFICATION

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PART 2

PROJECT SPECIFICATION

Any requirement or statement made in this Project Specification section of the specification shall override the requirements of Part 3 : Standard Specifications and the Drawings.

2.1 GENERAL

This specification covers all Works necessary for the electrical engineering (early warning detection and alarm) services installation of the project known as the “Idutywa Magistrate’s Office: Repairs and Renovations to the Existing Building”.

The project generally comprises the following Works, namely :

- ❑ Alterations and refurbishment of the Idutywa Magistrate's Office building
- ❑ Construction of a Decanting Site for the temporary Magistrate’s Office
- ❑ the above building Works generally include brick / dry walls, existing concrete slabs and floors, sheet vinyl / carpet / porcelain tile flooring, painted / tiled surfaces, suspended exposed “T” / flush plastered ceilings, etc.

This sequencing of the Works and the “unofficial” sectional completion requirements will be negotiated by the Client, Professional Team, Principal Contractor and the successful Tenderer.

The proposed base sequencing of the Works is as follows:

Decanting (Phase 1)

- ❑ Phase 1A – Addition of park homes (Offices) to the respective site as instructed
- ❑ Phase 1B – Moving of staff/equipment to temporary offices

Refurbishment to Existing Magistrate Offices (Phase 2)

- ❑ Phase 2 - Refurbish and Alterations to entire Building / Site

The Tenderer’s attention is specifically drawn to the fact that at Practical Completion the completion of specific sections must be such that the Client can actually move into the premises and commence conventional operational Office and Court activities.

Thus, programming for the Works must allow for the systematic clearance of all outstanding work and defects (save only latent defects) prior to the “Sectional” and “Practical” Completion circumstances required. The Works to be cleared are to include all electrical and mechanical installations including commissioning procedure and certificates of compliance etc., in addition to the building works.

Any works to the exterior of the building which do not impact on the conventional operational Forensic -related activities could be exempted from this requirement regarding “Sectional” and “Practical” Completion.

2.2 SCOPE OF WORK

2.2.1 Principle Items of Work

The principle items of Work covered by this Sub-contract comprises the supply, delivery, installation, testing, commissioning and twelve (12) months guarantee (with free maintenance during the guarantee period) of the complete Works involved in the early warning detection and alarm system, as further detailed below, namely :

- ❑ Preliminary & General Items
- ❑ The supply and installation of an addressable fire alarm panel (2-loop) with installer friendly “auto learn” / “loop detection” and on board scope facility for commissioning and fault finding, including a white backlit graphical liquid crystal display (LCD), 28 Amp battery, battery charging unit, etc.
- ❑ The supply and installation of fire detection devices (smoke sensitive, heat sensitive, combustion gas sensitivity and light emitting diodes)
- ❑ The supply and installation of alarm sirens / sounders
- ❑ The supply and installation of surface mounted break glass units

- ❑ The supply and installation of (PH120) fire retardant cable
- ❑ The supply and installation of alarm sirens / sounders
- ❑ The supply and installation of gas suppression systems within the Record and Server Rooms
- ❑ Provisional Sums as detailed in the Schedule of Quantities
- ❑ Provision of Record Drawings and Operating and Maintenance manuals
- ❑ Provision of Certificates of Compliance for complete installation covered in this specification
- ❑ All other materials, equipment, labour and services necessary for the complete, safe and efficient operation of the Works in full accordance with the specifications as detailed in the “Project Specification”
- ❑ Maintenance during the twelve (12) months defects liability period i.e. if, during the defects liability period, the electrical installation is not in working order for any reason for which the Contractor is responsible, or if the installation develops any defects, the Early Warning Detection and Alarm Sub-contractor shall immediately upon being notified thereof take steps to remedy the defects

2.2.2 Works to be Carried out by Others

The Principal Contractor, yet to be appointed, shall be appointed for the building Works, as briefly explained in Clause 2.1.

The successful Early Warning Detection and Alarm Sub-contractor shall be appointed as a Selected Sub-contractor to the appointed Principal Contractor. The successful Early Warning Detection and Alarm Sub-contractor may not sub-contract any portion of the Works to other parties.

The Principal Contractor may employ other Contracting Parties (to be appointed either as Selected or Domestic Sub-contractors) to complete portions of the Works.

The Early Warning Detection and Alarm Sub-contractor will be responsible for ensuring that the Selected Sub-contract is completed in accordance with Principal Contract, with the necessary co-ordination between the parties.

The Principal Contractor shall, under separate contracts, employ various other parties for the supply, installation, testing and commissioning of various specialist equipment installations i.e. but not limited to, the following :

- ❑ Supply and installation of air-conditioning and ventilation services installation, which shall be carried out by the Air-conditioning and Ventilation Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor (conduits, wireways, power supplies, etc. by Electrical Sub-contractor)
- ❑ Supply and installation of the electrical installation, which shall be carried out by an Electrical Sub-contractor, appointed as a Selected Sub-contractor to the Principal Contractor (conduits, wireways, power supplies, etc. by appointed Electrical Sub-contractor)
- ❑ Supply and installation of elevators, escalators and goods hoists, (where applicable) which shall be carried out by the relevant Specialist Sub-contractors, appointed as Domestic, Nominated or Selected Sub-contractors to the Principal Contractor (conduits, wireways, power supplies, etc. by Electrical Sub-contractor)
- ❑ Supply and installation of fire protection services installation, which shall be carried out by either the Plumbing Sub-contractor, appointed as a Domestic Sub-contractor to the Principal Contractor or by a Fire Services Sub-contractor, appointed as a Nominated or Selected Sub-contractor to the Principal Contractor (conduits, wireways, power supplies, etc. by Electrical Sub-contractor)
- ❑ Supply and installation of hot and cold water services installation, which shall be carried out by the Plumbing Sub-contractor, appointed as a Domestic Sub-contractor to the Principal Contractor (conduits, wireways, power supplies, etc. by Electrical Sub-contractor)
- ❑ Supply and installation of smoke extraction services installation (where applicable), which shall be carried out by the Smoke Extraction Sub-contractor, appointed as a Domestic, Nominated or Selected Sub-contractor to the Principal Contractor (conduits, wireways, power supplies, etc. by Electrical Sub-contractor)
- ❑ Supply and installation of specialist telecommunications services (where applicable) i.e. telephone and data, emergency bell and nurse-call, access control and door security, intercom, closed circuit television, radio, public address, television and television aerial services installations, etc. which shall be carried out by respective Sub-contractors, appointed as either Domestic Sub-contractors to the Electrical Sub-contractor (conduits, wireways, power supplies, etc. by the Electrical Sub-contractor)
- ❑ Supply and installation of specialist equipment, furniture, fittings and appliances

The Early Warning Detection and Alarm Sub-contractor shall work in close liaison with the appointed Contracting Parties.

2.3 INSPECTION OF SITE

The Consulting Electrical Engineers will not hold a compulsory site inspection meeting.

The prospective Tenderers are advised to thoroughly acquaint themselves with the nature and extent of Work to be done and to make allowance for items obviously intended and necessary for the proper completion of the Works, although not specified.

By submitting a Tender it is accepted that the Tenderer is fully aware of all site conditions as well as the access to it, and has allowed for this in their Tender Price. Claims due to lack of knowledge will not be entertained.

2.4 COMPLIANCE WITH REGULATIONS, STANDARDS AND CODES

The entire installation shall be in full conformity with the current versions of the following :

- ❑ South African National Standard : SANS 10400 - 2010 - Code of Practice for “The Application of the National Building Regulations” i.e. those included in the “National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977)”, as published in the Government Gazette, number 31084, dated 30 May 2008, which became effective as of 01 October 2008
- ❑ SANS 10139 : 2021 - Edition 4.0 - “Fire Detection and Alarm Installations for Buildings - System Design, Installation and Servicing”, as amended
- ❑ South African National Standard : SANS 10142-1: 2003 - The Wiring of Premises : Part 1 - Low-voltage Installations
- ❑ Occupational Health and Safety Act, 1993 (Act 85 of 1993)
- ❑ Any other relevant by-laws of the Local Authorities

Further, the Early Warning Detection and Alarm Sub-contractor shall adhere to all the relevant regulations, standards and codes specified in Part 3 of this Tender Document.

All apparatus, components, parts, fittings and materials supplied and / or installed, whether specifically specified herein or not, shall conform in respect of quality, manufacture, tests and performance with the requirements of the appropriate current South African (SABS) or British Standard Specifications (BS) and Addenda thereto, except where otherwise required by this specification or permitted by approval of the Consulting Electrical Engineers, in writing.

All materials and workmanship, which may, in the opinion of the Consulting Electrical Engineers, be inferior to that specified for the Work, will be condemned. All condemned material and workmanship must be replaced or rectified as the case may be, to the satisfaction of the Consulting Electrical Engineers.

Any fitting or item of equipment not specifically mentioned but obviously necessary for the successful completion of the installation is to be included so as to form a complete working installation.

2.5 SUPERVISION

The Work shall at all times, for the duration of the contract, be carried out under the supervision of a competent representative of the Early Warning Detection and Alarm Sub-contractor, who should also be Registered with the South African Qualification & Certification Committee for the Fire Industry (SAQCC), as determined by the Department of Labour to ensure compliance with the Occupational Health and Safety Act No. 85 of 1993, as amended.

Furthermore, the associated electrical Works shall at all times, for the duration of the contract, be carried out under the supervision of a competent representative of the Early Warning Detection and Alarm Sub-contractor, who should also be an Accredited Person registered as an Installation Electrician in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended.

The representative of the Early Warning Detection and Alarm Sub-contractor shall be able and authorised to receive and carry out instructions on behalf of the Early Warning Detection and Alarm Sub-contractor.

2.6 PROGRAMME

Please refer to main contractor document for the relevant programme.

2.7 SAMPLES AND ALTERNATIVES

The preferred manufacturer / makers of equipment and / or material are as described in either the Project Specification, the Standard Technical Specifications or as listed in the Schedule of Quantities.

The Employer reserves the right to specify the equipment and / or materials utilised in the Works. No alternatives to equipment and / or materials are to be used unless written approval is obtained from the Employer, or his Representative and / or the Consulting Electrical Engineers.

2.8 DEFINITIONS

- Supply : To purchase, procure and deliver complete with all related specified accessories
- Erect : To place or mount and fix in position
- Install : To erect, connect up and commission, complete with related accessories
- Indicated shown, Noted : As indicated or shown on drawings
- Approved, Alternative : Approved in writing by the Consulting Electrical Engineers
- Similar, Equal : Equal or better in efficiency of performance and compatibility

2.9 CONFLICT BETWEEN SPECIFICATIONS, SCHEDULE OF QUANTITIES AND DRAWINGS

Should there be conflict between the Project Specifications, Schedule of Quantities, Drawings and / or Standard Technical Specifications, the sections shall be considered in the following order of priority :

- Project Specifications
- Schedule of Quantities
- Drawings
- Standard Technical Specifications

Should the Electrical Sub-contractor note an inconsistency between the Project Specifications, Schedule of Quantities, Drawings and / or Standard Technical Specifications, he shall notify the Consulting Electrical Engineers immediately and obtain clarification or instructions prior to ordering or installing equipment.

2.10 DEVIATIONS FROM TENDER DOCUMENTS

No deviations or alterations from that of the specification, schedules or drawings shall be made without first obtaining the written approval of the Department.

2.11 DRAWINGS

Refer to the Drawing Schedule for the list of drawings relating to this Tender Document.

At no time is the Early Warning Detection and Alarm Sub-contractor to scale drawings or to make any assumptions regarding measurements / dimensions. If in doubt, the Early Warning Detection and Alarm Sub-contractor is to obtain clarification from the Consulting Electrical Engineers.

2.12 MOVING OF EQUIPMENT

The Early Warning Detection and Alarm Sub-contractor shall investigate each space through which equipment must be moved. Where necessary, equipment shall be transported in sections of size suitable for moving through spaces available.

2.13 MISCELLANEOUS

2.13.1 Labels

Labels shall be installed as required in terms of the relevant codes of practice and as further specified in this Tender Document.

All labels shall be in English with capital letters, in black and on a white background, and a minimum of 4 mm in height. All labels shall be of ivory or plastic construction and riveted / screwed in place.

2.13.2 Safety Signage

The Early Warning Detection and Alarm Sub-contractor shall supply and install all danger, sub-station and safety notices and signs in terms of the relevant regulations.

All safety signage installed shall be in accordance with SABS 1184.

2.14 INSTALLATION DRAWINGS

Drawings shall be submitted in triplicate as soon as possible after the signing of the Sub-contract Agreement, but in ample time to allow the Consulting Electrical Engineers to examine and approve before equipment manufacture is started, or material delivered to site.

Should the Consulting Electrical Engineers require that any drawing be amended, the Early Warning Detection and Alarm Sub-contractor shall make the necessary alterations and re-submit the drawing within two weeks.

The Early Warning Detection and Alarm Sub-contractor shall provide the Principal Contractor and the Consulting Electrical Engineers with complete layout, installation and shop drawings, together with any necessary descriptions and specifications. Sufficient details shall be given to permit a full appraisal of all parts of the installation and their relation to the building structure.

Drawings shall give full details of all foundations, ducts, chases, pits and openings and shall set out all lines and levels for the work.

Delays caused by the submission of drawings or by an error, omission or inadequacy in these drawings, shall not be considered a reason for an extension of the Sub-contract time.

2.15 PAYMENT VALUATIONS

The Early Warning Detection and Alarm Sub-contractor shall be entitled to submit monthly payment claims to the Principal Contractor. The payment claims are to be submitted to the Consulting Electrical Engineers for approval and recommendation, prior to submission to the Principal Contractor.

The payment claim shall be in the form of a copy of the Schedule of Quantities, indicating the tendered, claimed (supplied, installed and materials on / off site) and anticipated completion quantities, rates and values.

2.16 VARIATION ORDERS

Variations orders shall be ordered and processed either by the issue of a revised drawing or by issue of a site instruction, by a duly authorised person.

The Early Warning Detection and Alarm Sub-contractor shall ensure that the above procedures have been followed prior to carrying out any work. Failure to comply may invalidate any claim for work done.

Unless otherwise agreed with the Consulting Electrical Engineers, all claims for variation orders shall be approved prior to proceeding with the relevant Works. The Early Warning Detection and Alarm Sub-contractor shall submit variation order claims to the Consulting Electrical Engineers for approval with the preceding monthly payment claim.

However, the Early Warning Detection and Alarm Sub-contractor shall only include the value of approved variation orders in any payment claim or invoice, once approved in writing by the Consulting Electrical Engineers. Variation order claims, which have not been approved, but are included in the monthly payment claim, will be deducted from the payment claim in question.

2.17 ACCEPTANCE, TESTING AND COMMISSIONING

The Early Warning Detection and Alarm Sub-contractor shall carry out all tests required in terms of the relevant Acts, SABS Codes of Practice and Local Authority requirements. The Early Warning Detection and Alarm Sub-contractor shall provide all the equipment and apparatus required for the purpose of carrying out all necessary tests.

The Early Warning Detection and Alarm Sub-contractor is responsible for carrying out all necessary tests and obtaining all necessary certificates for the installation and operation of the plant.

If any part of the Works fails the test, the Early Warning Detection and Alarm Sub-contractor shall be responsible for rectifying, at his own cost, the defective Works and the re-testing thereof to ensure compliance. If in consequence, the Consulting Electrical Engineers are obliged to attend the further acceptance tests the additional costs incurred by the Engineers shall be payable by the appointed Mechanical Sub-contractor.

The Works shall be deemed to be practically complete only when the Consulting Electrical Engineers has approved all tests and inspections, and a Completion Advice Notice or other relevant completion notice is issued.

2.18 COMPULSORY FORMS AND CERTIFICATES

The Early Warning Detection and Alarm Sub-contractor shall submit the necessary commencement, compliance and completion forms for the installation as required in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended, the relevant SABS Specifications and the requirements of the relevant Supply Authorities.

2.19 OPERATING INSTRUCTIONS, MAINTENANCE MANUALS AND RECORD DRAWINGS

The Early Warning Detection and Alarm Sub-contractor shall supply, after approval by the Consulting Electrical Engineers, three (3) bound sets of operating instructions, maintenance manuals and record drawings for the complete Electrical Engineering Services : Early Warning Detection and Alarm Installation.

2.19.1 Operating Instructions and Maintenance Manual

Failure to submit these manuals will result in the delay of the final inspection and acceptance of the Works by the Employer.

The manuals shall be prepared within the Contract, and shall be particular to the project. All charges that may be required by manufacturers' suppliers for the provision of information and literature shall be included in the contract price.

The manual shall be arranged with an index and referencing system and a matching flysheet giving the names and address of principals involved on the project.

The covers shall be hardbound with a four-post loose-leaf system. The Contract details shall be embossed on the front cover. Numbered card dividers shall be inserted between the sections.

The format of the manual shall be in accordance with the following sections, after a preface and index. Any other data considered by the Employer to be pertinent shall also be included.

Section 1

This shall comprise the introduction, abbreviations, and any warnings that may be required by the Machinery and Occupational Safety Act, Local Authorities, and other bodies.

Section 2

A full description of each system, together with the main plant components and locations, plus the mode of operation of automatic control systems associated with such system shall be reflected in this section.

Section 3

This shall comprise the complete plant technical data of each item of control equipment (e.g. manufacturer's name and address, type of unit, serial number. This information shall be derived from a site inspection of identification plates together with information obtained from manufacturers.

Section 4

This section shall describe in detail the operating procedures necessary for starting up, running, and shutting down each individual system. This shall include the control panel starter and selection facilities together with any alarm and safety interlocks as identified on the control panel.

Section 5

This shall comprise the maintenance operations on a daily, weekly, monthly etc. basis for each item of plant. The preparation of this section shall be carried out by obtaining from the manufacturer his advice and recommendations for lubrication, adjustment and routine maintenance.

Section 6

This section shall comprise the emergency procedures to be adopted by personnel engaged on the operation and maintenance of the mechanical and Mechanical services with regard to fire, first aid, general failures, and call-out procedures during working hours and out of working hours.

Section 7

A recommended action on plant malfunction shall be detailed in this section. This is to assist both the user and maintenance engineer in the event of a fault developing in a system by indicating the nature of the fault and the recommended action.

Section 8

This shall comprise a list of recommended spares. The preparation of this section shall be carried out by obtaining the manufacturer's recommendations and also incorporate the Client's requirements regarding spares.

Section 9

A schedule of the record drawings or 'as-built' drawings for the new control systems shall be inserted in numerical order in this section. The drawings shall be bound into the manual.

Section 10

This section shall comprise test certificates and commissioning reports. It shall include reset schedules and temperature and pressure set points clearly for each item of control equipment.

Section 11

This shall comprise the manufacturers' literature, arranged in alphabetical order to match the list of manufacturers. The names of the manufacturers (or their local representatives), addresses, and telephone numbers shall also be given.

2.19.2 Record Drawings

A complete set of floor plans, in hard copy format, will be issued to the Early Warning Detection and Alarm Sub-contractor, for preparation of Record Drawings.

The Early Warning Detection and Alarm Sub-contractor shall prepare Record Drawings of the complete Early Warning Detection and Alarm Installation and return same to Consulting Electrical Engineers.

2.20 DEFECTS LIABILITY PERIOD

The defects liability period shall be twelve months, which shall commence with the issue of the Works Completion Certificate (or Completion Advice Notice) in respect of the fully commissioned Works, by the Consulting Electrical Engineers.

With effect from the date of the Works Completion Certificate, or Completion Advice Notice, the Early Warning Detection and Alarm Sub-contractor shall undertake the regular servicing of the installation during the defects liability period and shall make all adjustments necessary for the correct operation thereof. During the defects liability period, the Early Warning Detection and Alarm Sub-contractor shall complete all routine maintenance tasks that are specified for each component of the installation by the relevant Manufacturer / Supplier.

We understand the maintenance to be undertaken on the early warning detection and alarm installation during the defects liability period to be based on and include (but not be limited to) the following, namely :

Three month interval :

- ☐ check control equipment
- ☐ check system functions for normal operations
- ☐ check fire brigade signalling (if applicable)
- ☐ check all lamps in visual indicators and control desk
- ☐ check all audible alarms and fire evacuation speech system (if applicable)
- ☐ check battery, electrolyte level of accumulators and charging unit
- ☐ check random detectors and end of line units for operation
- ☐ each detector tested is to be logged on a maintenance sheet in order to ensure that within a 6 month period every detector will have been tested

Six month interval :

- ☐ all items listed above
- ☐ detection circuit is to be tested each 3 monthly service and each detector tested is to be logged on a maintenance sheet in order to ensure that within a 6 month period every detector will have been tested
- ☐ ensure display panel lights and/or controls are functioning correctly

Nine month interval :

- ☐ all items listed above
- ☐ detection circuit is to be tested each 3 monthly service and each detector tested is to be logged on a maintenance sheet in order to ensure that within a 6 month period every detector will have been tested
- ☐ ensure display panel lights and/or controls are functioning correctly

Twelve month interval :

- ☐ all items listed above
- ☐ all detectors to be taken down and cleaned, and tested after reinstallation
- ☐ test the inter face controls with other services

The Early Warning Detection and Alarm Sub-contractor shall ensure that the inspections, services and maintenance-related tasks are undertaken at intervals not greater than three months.

The Early Warning Detection and Alarm Sub-contractor shall ensure that each inspection, service and / or maintenance-related task is undertaken in the presence of a representative of either the Consulting Electrical Engineers or the Client.

The Early Warning Detection and Alarm Sub-contractor shall ensure that the necessary documentation is completed and submitted to the Consulting Electrical Engineers confirming the completion of the relevant tasks after every each inspection, service and / or maintenance-related task milestone.

The Early Warning Detection and Alarm Sub-contractor shall also timeously attend to any defects, which may occur through the normal operation of the Works.

If, during the defects liability period, the installation is not in working order for any reason for which the Early Warning Detection and Alarm Sub-contractor is responsible, or if the installation develops defects, he shall immediately upon being notified thereof take steps to remedy the defects and make any necessary adjustments.

Should such stoppages however be so frequent as to become troublesome, or should the installations otherwise prove unsatisfactory during the said period the Early Warning Detection and Alarm Sub-contractor shall, if called upon by the Consulting Electrical Engineers, at his own expense replace the whole of the installations or such parts thereof as the Consulting Electrical Engineers may deem necessary with apparatus specified by the Consulting Electrical Engineers.

The Early Warning Detection and Alarm Sub-contractor shall also timeously attend to any defects, which may occur through the normal operation of the Works.

Upon completion of the maintenance period, the Consulting Electrical Engineers shall undertake a final inspection and hand-over of the Works to the Client.

2.21 EQUIPMENT DETAILS

2.21.1 Addressable Fire Alarm Panel

The new fire alarm panel shall be an analogue addressable two-loop control panel for the Building, capable of supporting a minimum of 152 addressable sensors and devices per loop, that will be zoned and addressed in a logical sequence. The new fire alarm panel shall have a graphical liquid crystal display (LCD) that will be programmed to give detailed address and location information of devices.

The new main panel shall be capable of installer friendly "auto learn" / "loop detection" with on board scope facility for commissioning and fault finding, and shall be complete with 28 Ampere battery backup and battery charging unit, carry out automatic "self-testing" at regular intervals and report sensors requiring servicing. The panel shall be compliant with BS5839 and EN54.

The installation shall include for block diagrams and operating instruction to be installed alongside the panel in a position approved by the Consulting Electrical Engineer. Full training in operation of the panel must be provided to all responsible persons and various levels of password access must be included for to disallow tampering of the programming and operation of the fire alarm panel.

The fire panel will receive signals from various items of addressable equipment including thermal / ionization detectors, vesda units and break glass units, and will emit a signal to various items of addressable equipment including sounders, sirens, smoke extraction panels and door magnets, all of which will be supplied and installed to the various areas being renovated and added to the building. All items included in the loops shall be wired with PH120 fire retardant cable.

2.21.2 Sensors

All sensors installed, shall be addressable types with a unique identification code and built-in LED indicator. The bases shall be surface mounted and the detectors shall have a twist and lock action for installation. All sensors and bases shall be clearly labeled with an address number and be located as per the drawings provided.

The three types of sensors include

1. Analogue ionization smoke sensors
2. Analogue thermal sensors
3. Analogue beam detectors
4. Vesda Fire Detection Unit

Sensors in the ceiling voids shall have remote LED indicators. All remote LED indicators shall be labeled with the address of the sensor it is representing.

Sensors in the ceiling voids shall have remote LED indicators. All remote LED indicators shall be labeled with the address of the sensor it is representing.

2.21.3 Sounders

The sounders shall be addressable and wired directly onto the loop wiring and be given unique addresses. The sound levels for the sounders shall comply with the standard specifications. Internal sounders shall be ceiling mounted and external sounders shall be weatherproof and wall mounted.

All sounders must have dust covers until building activity ceases and the system is operational

2.21.4 Break Glass Unit

The break glass units (manual call points) are to be the addressable type, surface mounted in positions at a height indicated on the drawings and installed directly to the loop wiring with a unique address. They shall be red and have a re-settable element. All break glass units must be fitted with a plastic cover to deter hoax alarm signals. Each unit shall have a test key.

2.21.5 Strobe Warning Light

The strobe warning light shall be Xenon, ceiling mounted with a shallow base and electronically supervised for short and open circuits. They shall have a red lens suitable for 24V operation, flashing energy of 0.5 Joules and IP 65 rated.

2.21.6 Fire Retardant Cable

The Fire-rated cable shall be a PH120 type 1 mm² cable which shall last for a period of 120 minutes at a temperature of 930°C and installed into PVC conduit, which shall be supplied and installed by the appointed Early Warning Detection and Alarm Sub-contractor, complete with galvanised draw-wire.

2.21.7 Interfacing

The central control unit (control panel) shall interface with the following peripheral device / systems at the positions indicated on the drawing.

- i) Air-conditioning and Ventilation Installation
- ii) Smoke Extraction System Installation
- iii) Lift Installations
- iv) Sprinkler flow/pressure switches
- v) Existing fire panels

2.21.8 Gas Extinguishing / Suppression Systems

This part of the specification covers the design, supply, installation and commissioning of all equipment for the Clean Agent Gas Extinguishing system. The entire installation shall form part of the addressable fire detection system for the facility.

The Gas Fire Extinguishing System will be an engineered system utilizing a fixed cylinder with a fixed nozzle for distribution of the gas. The extinguishing system is to be installed in accordance with the National Fire Protection Association Standard.

The following rooms shall require gas extinguishing / suppression :

- Record Room 1 = 40 m³ (Two off Rooms)
- Record Room 2 = 56 m³
- Server Room = 10 m³

The proposed gas extinguishing systems shall be suited for the individual rooms as above. The complete gas extinguishing system details and specification shall be forwarded to the Electrical Consultant for approval prior to ordering of equipment etc., and is to include, but not limited, to the following components :

- Addressable Gas Control Units
- Addressable fire detectors
- Gas Cylinders (mounted against the wall containing sufficient extinguishing agent for the area required)
- I/O devices
- Fire Blankets
- Interface with air conditioning ventilation systems

All control, indication and monitor equipment related to the gas extinguishing installation shall be produced by the same manufacturer. The protection system shall be a Clean Agent Inert Gas Extinguishing System.

The design and installation of the clean agent gas extinguishing / suppression system shall be strictly in accordance with the following guidelines and regulatory authorities:

- BS 6268:1992 - Fire Protection for EDP Installation
- BS 5839: Part 1:1988 - Fire Detection and Alarm System for Buildings
- SAABS / ISO 14520 2000 Standard on Clean Agent Fire Extinguishing Systems

2.22 STAFF TRAINING

The Early Warning Detection and Alarm Sub-contractor shall provide comprehensive training of male and female operational staff and nominated maintenance personnel, to the approval of the Consulting Electrical Engineers. Training shall be comprehensive, covering all aspects of systems installed as part of these Works.

The Early Warning Detection and Alarm Sub-contractor shall provide a detailed training programme and a copy of the training documentation to the Consulting Electrical Engineer, for comment and review, no less than 12 weeks prior to the commencement of training.

No training will commence on site prior to the written approval of the Consulting Electrical Engineers. Should the Consulting Electrical Engineers not approve the training programme and documentation, the training programme and documentation will be referred back to the Early Warning Detection and Alarm Sub-contractor for re-evaluation and re-submission to the Consulting Electrical Engineers.

The number of staff to be trained is to the full discretion of the Client. However, the Early Warning Detection and Alarm Sub-contractor shall allow for 2 groups, each of up to 4 personnel. Each group shall receive a minimum of two 2-hour training sessions. One of these sessions shall be held prior to the commissioning of the Electrical Engineering Services installation, and the other of these sessions, upon expiry of the defects liability period.

Training shall be adequate to ensure that the groups trained are :

- ☐ competent in the operation of systems
- ☐ adequately trained to carry out on-going training
- ☐ fully aware of the location of all equipment installed as part of this Sub-contract within their area of responsibility

The names of personnel attending the training shall be recorded and submitted to the Consulting Electrical Engineers at the conclusion of training.

Maintenance staff shall demonstrate a complete understanding of the location and connectivity of the various elements of the Electrical Engineering Services installation.

All training aids and course notes necessary to conduct effective operational and maintenance training shall be supplied by the Early Warning Detection and Alarm Sub-contractor.

The training venue will be made available on site by the Client.

PART 3

STANDARD TECHNICAL SPECIFICATIONS

CONTENTS

ITEM	DESCRIPTION
SECTION FD 1	Analogue Addressable Fire Detection System
SECTION FD 2	General Requirements for an Early Warning Detection (EDW) Installation
SECTION FD 3	Fire Detectors and Alert Devices
SECTION FD 4	Early Warning Detection and Alarm Installation for an Early Warning Detection Installation
SECTION FD 5	Maintenance for an Early Warning Detection Installation
SECTION FD 6	General Equipment Specification for an Early Warning Detection (EWD) Installation

(The afore-mentioned documentation has not been included in the Enquiry Document, but may be obtained from the offices of the Consulting Electrical Engineers.)

PART 4

SCHEDULE OF QUANTITIES

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ITEM	DESCRIPTION	PAGE
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2	Alterations	4.1
3	Issue of Schedule of Quantities in Electronic Format	4.1
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6	Unit Rates	4.1
7	Variations	4.2
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10	Contingency Sums	4.2
11	Dayworks	4.2
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14	Quantification	4.3
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16	Payment	4.3

PART 4

SCHEDULES OF QUANTITIES

GENERAL NOTES

1 Specifications

The Schedule of Quantities form part of the Tender Document and must be read in conjunction with the other parts forming the Tender Document in order to gain the full meanings of the descriptions of the work to be done and materials and equipment to be used.

2 Alterations

No alterations, erasure or addition is to be made in the text of the Schedule of Quantities. Should any alteration, erasure or addition be made, it will not be recognised but the original wording of the Schedule of Quantities will be adhered to.

3 Issue of Schedule of Quantities in Electronic Format

The Consulting Electrical Engineers will make the Schedule of Quantities available to Tenderers in electronic (Microsoft Excel Workbook) format, upon request.

If utilised for tender submission, the Tenderer will be responsible for ensuring the correctness of all calculations. The Consulting Electrical Engineers cannot be held responsible for any arithmetic inaccuracies in the electronic Schedule of Quantities.

4 Pages

Before submitting his Tender, the tenderer must check to ensure all pages have been included and are distinct. Should any obvious errors be found the Consulting Electrical Engineers is to be notified immediately to have them corrected as no liability whatsoever will be admitted by the Consulting Electrical Engineers in respect of errors in the Tender due to the foregoing.

5 Responsibility

The responsibility for the accuracy of the quantities written into the Schedule of Quantities remains with the person who prepared the Schedule of Quantities. The Tenderer shall be relieved of the responsibility of measuring quantities at the Tender stage, and the Tender Price submitted shall be in respect of the quantities set out in the Schedule of Quantities.

The Tenderer will be required to make his assessment of items such as brackets, fixings, etc., from details stated in the Schedule of Quantities and shall make allowances therefore within the rates tendered.

Tenderers shall make due allowance in their rates for any item of incidental or contingent work, labour and materials not contained in the Schedule of Quantities, but deemed necessary for the successful completion of the Works.

6 Unit Rates

Unless a separate rate for the supply and the installation of any item is specifically called for, the supply and installation costs of any items shall be fully included in the unit price.

The description of each item shall, unless otherwise stated herein, be held to include making, conveying and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, cutting and waste, patterns, models and templates plant, temporary works, return of water establishment charges, profit and all other obligations arising out of the Conditions of Contract.

7 Variations

Variations in the scope and extent of the work included in the Schedule of Quantities shall be allowed in order to meet the Employer's requirements and shall be measured and costed at the rates entered in the Schedule of Quantities, where appropriate, forming an addition to or deduction from the total of the Schedule of Quantities. Any items or variations for which rates have not been added in the Schedule of Quantities shall be agreed and priced as non-scheduled items in accordance with the provisions of the contract.

The rules governing the extent and costing of the variations shall be those provided for in the Conditions of Contract and Variations to Sub-contract.

Variations to the planning before the work has been executed shall be priced as above. Alterations to work already executed cannot necessarily be priced as above and must be reviewed on its merits.

The appropriate portions of the Preliminary & General Costs are to be adjusted proportionately to the nett additions or omissions of the variations to the contract

8 Preliminary and General

Tenderers shall price the Preliminary & General under any or all of these groups, viz.:

- a) A fixed amount
- b) An amount varied in proportion to the final contract value as compared to the Tender Price
- c) An amount varied in proportion to the final contract period as compared to the originally specified contract period

The allocation of prices to the three categories listed above must be realistic and the Mechanical Sub-contractor may be required to justify the allocation of the prices. Should no Preliminary & General Costs be entered against the variable items b) or c) above, no adjustment thereof shall be considered.

9 Provisional Sums

All Provisional Sums shall be expended only as directed by the Consulting Electrical Engineers and any balance remaining shall be deducted from the amount of the Sub-contract sum. No work for which Provisional Sums are provided shall be commenced without written instructions from the Engineer.

All Provisional Sums may be utilised in full or in part. These Provisional Sums may be deleted in full or in part if not required.

10 Contingency Sums

All Contingency Sums shall be expended only as directed by the Consulting Electrical Engineers. No work for which Contingency Sums are provided shall be commenced without written instructions from the Engineer.

All Contingency Sums may be utilised in full or in part. These Contingency Sums may be deleted in full or in part if not required.

11 Dayworks

The rates included for daywork shall not form part of the Tender Price, but Tenderers shall note that this item must be regarded as provisional and will only be payable to the Early Warning Detection and Alarm Sub-contractor if and when a written order to this effect has been issued.

12 Value Added Tax

This Schedule of Quantities shall be priced nett, excluding VAT. VAT shall be added at the summary at the end of the Schedule of Quantities. The final price entered into the Tender Form shall be inclusive of VAT.

13 Adjustment

The Employer reserves the right to adjust arithmetical errors in the extension of rates and totals in the Tender, and the Tenderer will be informed of the effect of any corrections on his Tender Sum prior to the award of the Contract. In no case will tendered rates be adjusted when correcting such errors.

In the event of there being tendered rates or prices which are declared by the Employer to be unacceptable to him, because they are either excessively low or high or not in proper balance with other rates, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or prices objected to. If after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the tendered rates or prices objected to, he may request the Tenderer to amend these rates and prices along the lines indicated by him.

The Tenderer may or may not thereupon alter and amend the rates and prices objected to and such other related prices as are agreed to by the Employer. Should the Tenderer fail to amend his Tender in a manner acceptable to the Employer, or at all, it may prejudice his Tender.

In the case of Tenders with Schedule of Quantities, the total corrected Tender Price in the Tender Form shall constitute the Sub-contract Sum. Tenderers are advised to check their extensions and additions. In the case of a Lump Sum Tender, the original uncorrected Tender Price shall be considered. The Consulting Electrical Engineers shall negotiate adjustments to the rates tendered in order to correct the arithmetical extension or addition, whilst the Tender Price as submitted, remains unaltered.

In either case, the Tenderer shall be notified of any arithmetical error in his Tender, and shall be given the opportunity to withdraw the Tender at this stage.

14 Quantification

The successful Tenderer and the Client or his Agent may agree that the total of any Schedule, including any variations by way of additions thereto or deductions there from, represents a fair and accurate quantification of the items set out in the Schedule of Quantities and the parties may agree final payment on that basis. In the event of any dispute as to the quantities, the disputed item or items shall be adjusted where necessary.

15 Ordering

The quantities in this Schedule of Quantities shall not be used for ordering materials. The onus is on the successful Tenderer to order the correct quantities of materials as per the drawings.

16 Payment

The measurement and payment of Work done shall be made in accordance with the unit price rates, and rates of pay listed in the Schedule of Quantities. No payment will be made for any item of associated work not specifically detailed in the Schedule of Quantities.



Our File : Public/Engineering/Projects/2023/2023-472/Tender/Fire Protection/Fire Appliance Installation

Our Reference : Specification and Equipment Schedule (Fire Appliances) (letter)

21 February 2025

IDUTYWA MAGISTRATE'S OFFICE: REPAIRS AND RENOVATIONS TO EXISTING BUILDING

(WCS 054991)

MECHANICAL ENGINEERING SERVICES (FIRE APPLIANCE INSTALLATION)

FIRE APPLIANCE SPECIFICATION AND EQUIPMENT SCHEDULE

The layouts of the fire protection installation are as indicated on the drawings included with the document. All parts of this installation shall require all equipment to be extensively cleaned for a hygienic system of operation.

1 Equipment Details

1.1 Piping and Fittings

All external piping above ground (including fire mains) to be installed, shall be galvanized steel.

All internal piping above ground (including fire mains) to be installed, shall be galvanized steel.

All internal pump house piping above ground (including fire mains) to be installed, shall be galvanized steel.

All void pipe-work to be painted with red oxide and exposed pipe-work to be painted with red oxide and also signal red enamel.

Below ground pipe-work to be installed shall be a minimum of a Class 16 U-PVC. In the event of steel piping being used underground, all such underground steel piping and fittings shall be wrapped with "rapid bond" in accordance with the manufacturer's specification / recommendations, and to the Consulting Mechanical Engineer's approval, in order that the piping and fittings are fully protected against external corrosion.

No piping shall be wrapped in "rapid bond" until pressure tested and written confirmation of this fact has been acknowledged, as received by the Consulting Mechanical Engineer. The Consulting Mechanical Engineer shall in any event be given the opportunity, in writing, of witnessing such test.

All piping shall be hydraulically pressure tested in sections, as per the builder's program, for closing ceilings etc., and testing shall be witnessed by the Consulting Mechanical Engineers. A pressure test certificate shall be included into the O&M Manuals for the complete installation.

Terminal points shall be installed at the extremities of the distribution pipe at each level to prove that the water is accessing all points of the system. These points must be accessible for demonstration at commissioning of the installation. The installation shall be fitted with a flush connection below the control valve. These must be plugged to prevent misuse.

All pipe-work is to include galvanized / stainless steel hangers / fittings and must be adequately and neatly supported in both the horizontal and vertical direction. All pipe-work shall be cleaned, primed and painted.

The Contractor shall be responsible for the removal and reinstallation of the existing ceilings where the pipe work is to be installed. Any damaged ceiling tiles and grids shall be replaced.

Members:

JAN HENDRIK KLEINHANS Pr. Techni. (Eng.)(Elec. Eng)
SAIEE, CET, SAEEC
Engineering Manager (Electrical)



CEDRIC ANDRE LEACH Pr. Tech. (Eng.) BTech. (Mech Eng)
SAIMech, IPET, SAFHE, FPASA
Engineering Manager (Mechanical)

1.2 Fire Hose Reels

Fire hose reel of the size detailed in the Schedules of Quantities shall be installed, and shall include a pressure gauge.

The fire hose reel shall be mounted as detailed in SABS 0400 : 2011

Fire hose reels shall comply with the applicable standards equivalent to or exceeding SABS 543, 1475 or 0105, as applicable.

1.3 Fire Extinguishers

Portable fire extinguishers of the type and size detailed in the Schedules of Quantities shall be installed.

The portable fire extinguishers shall be mounted on a 600 mm x 100 mm x 20 mm wooden (Meranti) back plate, chamfered on the four front edges and fixed to the wall using 2 off 75 mm No. 8 countersunk wood screws with rawl plugs. The back plate shall be finished with two coats high quality clear gloss wood varnish.

The top of the wooden back plate shall be mounted at 1 500 mm AFFL, unless otherwise directed.

Portable fire extinguishers shall comply with the applicable standards equivalent to or exceeding SANS 1910, SABS 810, 889 or 1151, as applicable.

1.4 Fire Hydrants

Fire hydrants of the size detailed in the Schedules of Quantities shall be installed in accordance to SANS 1128-1.

All fire hydrants shall be provided with an appropriate fire hose of 30 m in length, together with fittings, couplings and 16 mm internal diameter nozzle, all of which shall comply with the requirements of SANS 1128-2.

If no cupboard has been provided by the Architect, the fire hose, fittings, couplings and nozzle shall be stored in a red storage box fitted next to the respective fire hydrant.

1.5 Pipe Fittings

All fittings shall be threaded type or groove type systems in accordance with SANS 1109 / BS21 and ASIB.

Welded sections of pipe shall have flange / coupling joints at suitable intervals to facilitate removal. Welded range pipes shall not be accepted.

1.5.1 Non-return Valves

Non-Return Valves shall be as follows:

- ☐ “Check Rite” wafer check valves, Model 210 ANSI Series 300
- ☐ Steel body material
- ☐ Stainless steel disc
- ☐ Resilient O-Ring seat (Vitron)

1.5.2 Pressure Gauges

All pressure gauges shall be of the glycerine filled type, and shall have a range of 0-1600 kPa. Each gauge shall be mounted remotely from the main pipe by means of a 100 mm long extension pipe, complete with an isolating ball valve mounted in this line.

1.6 Painting

All pipework and fittings fabricated at the works shall be de-greased with a suitable de-greasing agent. After de-greasing the pipework and fittings, they shall immediately be painted with one coat of red oxide (PA10) self-etching primer, prior to being dispatched to site. After erection of all pipework, valves, fittings, etc., all chain marks, etc., shall be touched up with the same priming paint.

A final top coat of high gloss enamel paint, Plascon VIP, shall be applied to all visible piping - colour to be advised.

An approved undercoat shall be applied to all external piping and left to dry before the final top coat of high gloss enamel paint is applied, colour to be advised.

1.7 Testing

The entire system shall be robust and shall be capable of holding a pressure of 50% more than the working pressure of the systems proposed, and a minimum test pressure of 1200 kPa. This pressure must hold for a period of twenty-four (24) hours without dropping. The Consulting Mechanical Engineer shall be informed of such tests, so that he can witness and approve them.

1.8 Quality of Work

The Consulting Mechanical Engineer shall have the right to visit the site at any reasonable time and inspect the progress of the work and materials used, and shall have the right to reject:

- ☐ Any work which in his opinion is not to specification or standard, and which is badly or incorrectly carried out
- ☐ Any materials which are considered not to specification or are of an inferior quality

2 Staff Training

The Contractor shall provide comprehensive training of male and female operational staff and nominated maintenance personnel, to the approval of the Consulting Mechanical Engineers.

Training shall be comprehensive, covering all aspects of systems installed as part of these Works.

The Contractor shall provide a detailed training programme and a copy of the training documentation to the Consulting Mechanical Engineers, for comment and review, no less than 12 weeks prior to the commencement of training.

No training will commence on site prior to the written approval of the Consulting Mechanical Engineers. Should the Consulting Mechanical Engineers not approve the training programme and documentation, the training programme and documentation will be referred back to the Contractor for re-evaluation and re-submission to the Consulting Mechanical Engineers.

The number of staff to be trained is to the full discretion of the Client. However, the Contractor shall allow for 2 groups, each of up to 4 personnel. Each group shall receive a minimum of two 2-hour training sessions. One of these sessions shall be held prior to the commissioning of the mechanical engineering services installation, and the other of these sessions, upon expiry of the defects liability period.

Training shall be adequate to ensure that the groups trained are :

- ☐ competent in the operation of systems
- ☐ adequately trained to carry out on-going training
- ☐ fully aware of the location of all equipment installed as part of this Sub-contract within their area of responsibility

The names of personnel attending the training shall be recorded and submitted to the Consulting Mechanical Engineers at the conclusion of training.

Maintenance staff shall demonstrate a complete understanding of the location and connectivity of the various elements of the mechanical engineering services installation.

All training aids and course notes necessary to conduct effective operational and maintenance training shall be supplied by the Contractor.

The training venue will be made available on site by the Client.

SCHEDULE OF MATERIALS

The Tenderer shall detail below all materials proposed in order to complete the Works specified. (Failure to complete this schedule may invalidate the tender submission).

Description

NB: Only one manufacturer's name to be inserted for each item.

1. Fire Protection Equipment

1.1 Fire Hose Reels

Manufacturer

Type

Country of Origin

Material - Body

Pressure Gauge (Type, Calibration kPa)

Approved By

1.2 Fire Extinguishers

Manufacturer

Type

Country of Origin

1.3 Fire Hydrants (Internal)

Manufacturer

Type

Country of Origin

Material - Body

Approved By

Canvas Fire Hose (Type, Size)

Storage Box (Type, Size)

1.4 Fire Hydrants (External)

Manufacturer

Type

Country of Origin

Material - Body

Approved By

Canvas Fire Hose (Type, Size)

Storage Box (Type, Size)

1.5 Piping (Below Ground)

Manufacturer

SABS / BS Number

Country of Origin

1.6 Pipe Fittings (Below Ground)

Manufacturer

SABS / BS Number

Country of Origin

1.7 Piping (Above Ground)

Manufacturer

SABS / BS Number

Country of Origin

1.8 Pipe Fittings (Above Ground)

Manufacturer

SABS / BS Number

Country of Origin

1.9 Fire Brigade Booster Connection

Manufacturer

Type

Country of Origin

Material - Body

Approved By

1.10 Pressure Gauges

Manufacturer

Model Number

Country of Origin

Calibration Pressure (kPa)

Size of Dial

1.11 Signage

Manufacturer

Country of Origin

SANS Standard

Name

Signature

Date



Our File : Public/Engineering/Projects/2023/2023-472/Tender/Fire Protection/Fire Hose Reel Pump Set

Our Reference : Technical Specification (FHR Pump Set)

IDUTYWA MAGISTRATE'S OFFICE: REPAIRS AND RENOVATIONS TO EXISTING BUILDING (WCS 054991)

MECHANICAL ENGINEERING SERVICES

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING SPECIFICATION AND APPLICATION OF A FIRE HOSE REEL PUMP-SET

Fire Hose Reel Pump-Set

Demand	:	90 l/min @ 350 kPa
Type	:	Fully automatic electrically operated; end suction, dual standby fire hose reel pump set, (in accordance with SANS Regulations)
Quantity	:	Two off fire hose reel pumps (dual stand-by)
Motor	:	Direct coupled 1,5kW / 400Volt / 3-Phase electric motors
	:	IP55 enclosure electric motor
Pump Construction	:	Stainless steel construction with mechanical shaft seals
Engine Supervisory Equipment	:	Low level water alarm / shutdown
	:	Start failure alarm (after three attempts)
Location	:	Installed on a base plate (galvanised base plate, painted with black epoxy powder coating) mounted to a concrete plinth located in pump room
Piping	:	The fire hose reel pump set, is to include a suction and discharge manifold (including flanges), pressure vessel, testing equipment, complete with isolating / non-return valves and a pressure gauges
	:	The Contractor shall be responsible for all necessary fire water piping
Operation and Maintenance Manuals	:	Operation and Maintenance Manuals shall include (but not be limited to) a complete schematic diagram of the pump set's operation and control circuitry

Additional to the above, the fire hose reel pump is to maintain pressure in the system.

Motor Control Centre (MCC) Panel

Type	:	Integral type panel, the MCC Panel shall be painted Signal Red, colour A11 of SANS 1091
	:	Weather proof / corrosion resistant panel fabricated from 2 mm 3CR12 and to comply with specifications for electrical distribution boards
	:	The appointed Contractor shall ensure that the MCC Panel is constructed to fit into the space provided, wall mounted (adjacent pump set), that sufficient space is allowed for the cable ends and termination thereof and that the MCC Panel is provided with a hinged lockable door

		<ul style="list-style-type: none"> : All gland plates, as well as top or side plates used for the termination of cables shall be easily removable to facilitate the drilling and punching of holes. Panels (fascia) and cover plates are to be fixed to the framework by means of “Quick-lock” or other similar captive fasteners. Self-tapping screws or dome nuts will not be accepted. Panels (fascia) and cover plates are to be fitted with chrome plated handles to facilitate removal
Operation	Manual	<ul style="list-style-type: none"> : Push button stop / start. This is primarily a test function and emergency by-pass of the automatic function : The manual function works independent from the auto mode and will not be controlled by the safety switches
	Auto Mode	<ul style="list-style-type: none"> : Low pressure condition will activate (start) the duty pump : High pressure condition will deactivate (stop) the duty pump : An overriding timer in the MCC panel will only allow the duty pump to stop after a pre-set time to avoid a stop / start situation in the event of an emergency. The pre-set delay timer will commence count down from the last high pressure signal, should a low pressure signal occur during the countdown period, then the timer will commence counting from the last high pressure signal received from the system
Pump Operation	FHR Pump	<ul style="list-style-type: none"> : The installation is fitted with a fire hose reel pump set : In the event of a low-pressure condition the fire hose reel pump set will start and recharge the system : Each pump will be fitted with its own pressure switch and start and stop independently from each other, and should the fire hose reel pump set fail to start, for whatever reason, then the standby pump will automatically start

Emergency Alarm

Operation	<ul style="list-style-type: none"> : An alarm will be linked to the system and will automatically be activated if the fire hose reel pump starts : The alarm can only be deactivated manually by a reset button fitted to the MCC Panel
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General

Water Supply	<ul style="list-style-type: none"> : The fire booster system is fed from the storage tanks supply : Due to the important nature of the system, there should be no-flow protection fitted : Should the municipal water supply fail, the pumps would normally sustain pressure in the fire main providing there is no draw off. Under similar conditions should there be a draw off in excess of 0.5 litres/s, the pumps will automatically be activated as described above under “auto mode” when a low-pressure condition is caused and the alarm will be activated : The function of a fire booster pump is to provide water pressure under any conditions : An emergency stop button in the pump house will be wired to stop the pumps until the water supply is reinstated
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Motor Control Centre (MCC) Panel	<ul style="list-style-type: none"> : The MCC panel is to be manufactured by a reputable company, with relevant experience in the manufacturing of electrical distribution boards, control panels, automatic mains failure panels, etc. Approval of the manufacturing company should be obtained from the Consulting Mechanical Engineers prior to the placing of any orders / commencement of Works : Detailed wiring diagrams and shop (manufacturing) drawings of the proposed MCC Panel is to be submitted to the Consulting Mechanical Engineers for approval, prior to manufacture : Approval of the wiring diagrams and shop (manufacturing) drawings by the Consulting Mechanical Engineers does not remove any
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Electrical Cables : responsibility from the appointed fire pump system Sub-contractor to ensure the completeness and compliance of the MCC Panel
All electrical cables between the MCC Panel and the main electrical distribution board (in example, the source of electricity supply to the MCC Panel) shall be supplied and installed by the appointed Electrical Contractor

Approved Product (Not Limited To)

Fire Hose Reel Pump-set : Natal Pumps (Pty) Ltd



Our File : Public/Engineering/Projects/2023/2023-472/Tender/Fire Stops

Our Reference : Technical Specification (Fire Stops)

IDUTYWA MAGISTRATE'S OFFICE: REPAIRS AND RENOVATIONS TO EXISTING BUILDING

(WCS 054991)

MECHANICAL ENGINEERING SERVICES

SPECIFICATION AND APPLICATION OF FIRE STOPS FOR PENETRATIONS IN FIRE WALLS

Fire Stops (PVC Pipes)

Application	:	All annular gaps around the PVC piping penetrating a fire wall, are to be tightly packed with mineral wool (CP670), and sealed with 10-15 mm of intumescent sealer (CP601S / FS ONE MAX / CP606) on either side of the fire wall. Once the sealant is set, a collar, cut to size, (CFS-EL) is to be placed on both sides of the fire wall to complete the installation and create a 120 minute fire rated fire wall (<i>in accordance with SANS 10177</i>)
PVC Pipe Sizes (Ø mm)	:	Ø20 to Ø110
Quantity	:	See Construction Drawings
Compliance	:	Testing and certification in accordance with SANS 10177, and classified in accordance with SANS 10177-2
Purpose	:	The fire stop is to be used to close up the penetrations created in a fire wall / fire barrier, by services or any other opening, so that the fire resistivity is not compromised and the fire divisions / walls within the building are in accordance with "Part T" in the South African National Standard : SANS 10400 - 2010 - Code of Practice for "The Application of the National Building Regulations"
Material	:	Mineral Wool – CP670
	:	Intumescent Sealer – CP601S (Flexible)
		– FS ONE MAX (All Rounder)
		– CP606 (Rigid)
	:	Fire Stop Collar – CFS-EL

Fire Stops (Steel Pipes)

Application	:	All annular gaps around the steel piping penetrating a fire wall, are to be tightly packed with mineral wool (CP670), and sealed with 10-15 mm of intumescent sealer (CP601S / FS ONE MAX / CP606) on either side of the fire wall to complete the installation and create a 120 minute fire rated fire wall (<i>in accordance with SANS 10177</i>)
Steel Pipe Sizes (Ø mm)	:	Ø22 to Ø100
Quantity	:	See Construction Drawings
Compliance	:	Testing and certification in accordance with SANS 10177, and classified in accordance with SANS 10177-2

Members:

Purpose	:	The fire stop is to be used to close up the penetrations created in a fire wall / fire barrier, by services or any other opening, so that the fire resistivity is not compromised and the fire divisions / walls within the building are in accordance with “Part T” in the South African National Standard : SANS 10400 - 2010 - Code of Practice for “The Application of the National Building Regulations”
Material	:	Mineral Wool – CP670
	:	Intumescent Sealer – CP601S (Flexible)
		– FS ONE MAX (All Rounder)
		– CP606 (Rigid)
General		
Fire Stops	:	For the hard-to-reach places (installations where mineral wool cannot be installed), the mineral wool can be replaced by Fire Expanding Foam (CP620) cut flush with the wall and sealed as per specifications above For protection of cables, cable trays, etc. penetrating fire walls, Cable Coating (CP678/9) is to be applied Where the top of wall joints are considered, mineral wool (CP670) is to be installed with Intumescent Sealer (CP606) applied to both sides of the fire wall The Fire Stop / System is to be manufactured and installed by a reputable company, with relevant experience in the manufacturing of fire systems etc. Approval of the manufacturing company should be obtained from the Consulting Mechanical Engineers prior to the placing of any orders / commencement of Works
Approved Product (Not Limited To)		
Fire Stops	:	HILTI South Africa (Pty) Ltd
	:	Pyrocote Eastern Cape

UL SYSTEM NO. C-AJ-2109

PLASTIC PIPE THROUGH FLOOR/WALL OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR. OR 3-HR.

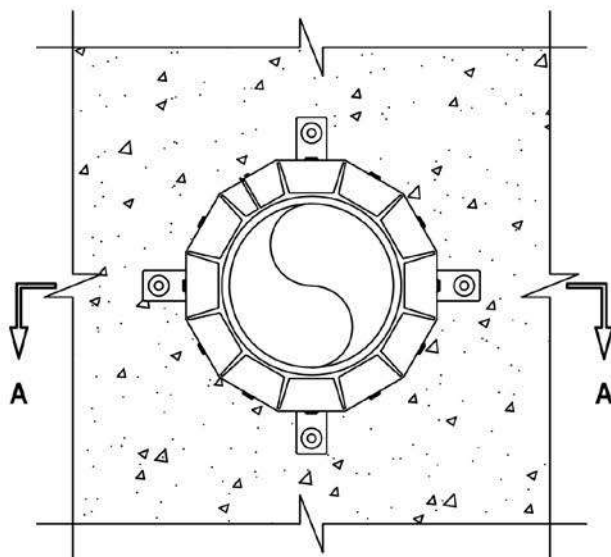
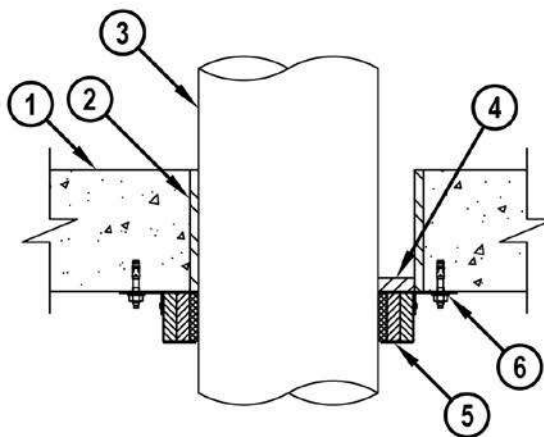
T-RATING = 0-HR., 2-HR., OR 3-HR.

L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT (SEE NOTE NO. 9 BELOW)

L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT (SEE NOTE NO. 9 BELOW)

W-RATING = CLASS I (SEE NOTES NO. 7 AND 8 BELOW)

CAJ2109s.122013

BOTTOM VIEW**SECTION A-A**

1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. OR 3-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
 - B. ANY UL CLASSIFIED CONCRETE BLOCK WALL.
2. [OPTIONAL] MAXIMUM 12" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 40 OR HEAVIER) MAY EXTEND MAXIMUM 3" ABOVE FLOOR.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (ALSO SEE NOTE NO. 3 BELOW) :
 - A. MAXIMUM 10" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - B. MAXIMUM 10" NOMINAL DIAMETER CPVC PLASTIC PIPE (CLOSED PIPING SYSTEM ONLY).
 - C. MAXIMUM 6" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - D. MAXIMUM 6" NOMINAL DIAMETER FRPP PLASTIC PIPE.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT, HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, HILTI CP 604 SELF-LEVELING FIRESTOP SEALANT, HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT, OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT INSTALLED FLUSH WITH TOP OR BOTTOM SURFACE OF FLOOR.

Hilti. Outperform. Outlast.

UL SYSTEM NO. C-AJ-2109

PLASTIC PIPE THROUGH FLOOR/WALL OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR. OR 3-HR.

T-RATING = 0-HR., 2-HR., OR 3-HR.

L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT (SEE NOTE NO. 9 BELOW)

L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT (SEE NOTE NO. 9 BELOW)

W-RATING = CLASS I (SEE NOTES NO. 7 AND 8 BELOW)

CAJ2109s.122013

5. HILTI CP 643N OR CP 644 FIRESTOP COLLAR WITH FASTENING HOOKS (SEE TABLE BELOW).
6. EACH FASTENING HOOK SECURED TO BOTTOM OF FLOOR WITH 1/4" x 1-1/4" LONG STEEL EXPANSION BOLTS, MIN. 0.145" x 1-1/4" POWDER ACTUATED FASTENERS WITH 1-7/16" DIAMETER STEEL WASHER, 1/4" x 1-1/4" HILTI KWIK-CON II+ CONCRETE SCREW ANCHOR, 1/4" x 1-3/4" HILTI KWIK-BOLT 3 STEEL EXPANSION ANCHOR, OR HILTI X-DNI 27 P8 S15 POWDER ACTUATED FASTENER WITH INTEGRATED WASHER.

NOMINAL PIPE DIAMETER	PRODUCT DESCRIPTION	F-RATING
1-1/2"	CP 643 50/1.5" N	3
2"	CP 643 63/2" N	3
3"	CP 643 90/3" N	3
4"	CP 643 110/4" N	3
6"	CP 643 160/6" N	3
8"	CP 644 200/8"	2
10"	CP 644 250/10"	2

- NOTES : 1. HILTI FIRESTOP COLLARS, HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT, HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, OR HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT ARE REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.
2. MAXIMUM DIAMETER OF OPENING = 12".
3. ANNULAR SPACE ON PIPES NOMINAL 6" AND SMALLER = MINIMUM 0", MAXIMUM 1/2".
4. ANNULAR SPACE ON PIPES LARGER THAN NOMINAL 6" = MINIMUM 0", MAXIMUM 1-1/4".
5. CLOSED OR VENTED PIPING SYSTEM (PVC, ABS, & FRPP = SCHEDULE 40, CPVC = SDR 13.5).
6. HILTI FIRESTOP SEALANT IS OPTIONAL ON PIPES HAVING A MAXIMUM DIAMETER OF NOMINAL 6" INSTALLED IN UNSLEEVED OPENINGS.
7. W-RATING DOES NOT APPLY IN SLEEVED OPENINGS.
8. W-RATING APPLIES ONLY WHEN ANNULAR SPACE IS MINIMUM 0", MAXIMUM 1/2", AND HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, HILTI CP 604 SELF-LEVELING FIRESTOP SEALANT, HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT, OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT IS USED.
9. L-RATING APPLIES ONLY WHEN HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, HILTI CP 604 SELF-LEVELING FIRESTOP SEALANT, HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT, OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT IS USED.
10. WHEN HILTI CP 604 SELF-LEVELING FIRESTOP SEALANT OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT IS USED, A MINIMUM 1/2" THICKNESS OF MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED IS TO BE INSTALLED WITHIN THE ANNULAR SPACE AND RECESSED FROM THE TOP SURFACE OF CONCRETE FLOOR TO ACCOMMODATE SEALANT.

UL/cUL SYSTEM NO. C-AJ-1517

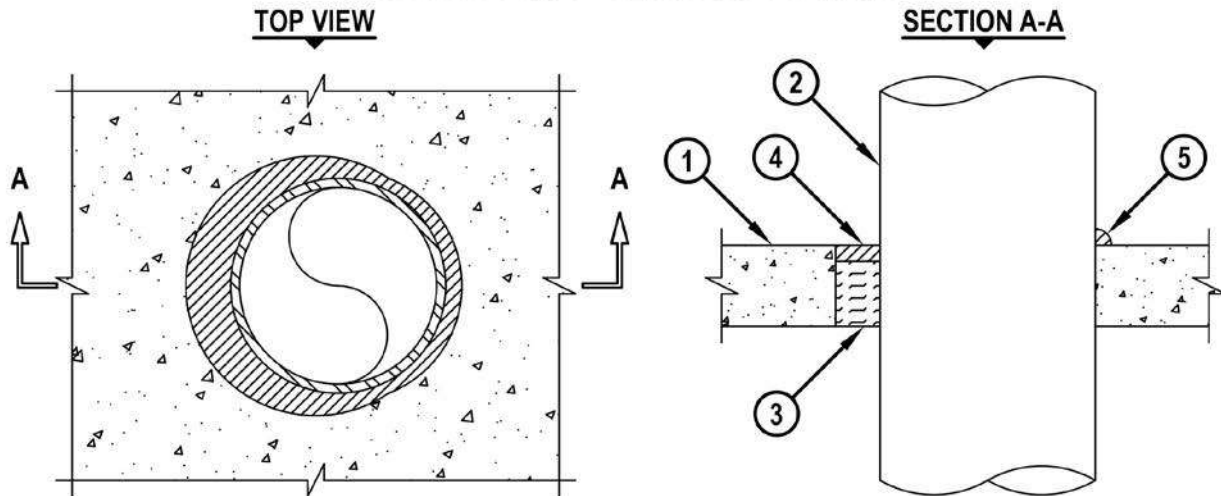
METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.

T-RATING = 0-HR.

L-RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.

L-RATING AT 400°F = LESS THAN 1 CFM/SQ. FT.



CAJ1517c-080510

Through-Penetration

1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 2-1/2" THICK).
 - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
 - A. MAXIMUM 24" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
 - B. MAXIMUM 24" NOMINAL DIAMETER CAST IRON OR DUCTILE IRON PIPE.
 - C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
 - D. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
 - E. MAXIMUM 4" NOMINAL DIAMETER EMT.
3. MINIMUM 2" THICKNESS MINERAL WOOL (MINIMUM 4 PCF DENSITY) TIGHTLY PACKED AND RECESSED TO ACCOMMODATE FIRESTOP SEALANT.
4. MINIMUM 1/2" DEPTH HILTI CP 606 FLEXIBLE FIRESTOP SEALANT.
5. MINIMUM 1/2" BEAD HILTI CP 606 FLEXIBLE FIRESTOP SEALANT AT POINT OF CONTACT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 26".
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2".
 3. MINIMUM 1/2" DEPTH HILTI CP 606 FLEXIBLE FIRESTOP SEALANT IS REQUIRED ON EACH SIDE OF A WALL ASSEMBLY.

DEPARTMENT OF PUBLIC WORKS
PROJECT DESCRIPTION: IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND
REFURBISHMENT OF THE ENTIRE FACILITY
WCS: 054991 & 056942

PART C4 SITE INFORMATION

T2.1
List of Returnable Documents

PG-03.2 (EC) SITE INFORMATION – JBCC 2000 PRINCIPAL BUILDING AGREEMENT (EDITION 6.2 OF MAY 2018)

Project title:	IDUTYWA MAGISTRATES COURT: PLANNED MAINTENANCE, REPAIRS AND REFURBISHMENT OF THE ENTIRE FACILITY				
Tender no:	<i>MTH01/2025</i>	WCS no:	<i>054991 & 056942</i>	Reference no:	

C4 Site Information

The site is located at:

The site is situated at the centre of the town of Idutywa. It is located on the main road passing through the town, in the area of jurisdiction of the Mbhashe Local Municipality in the Amathole District, Eastern Cape Province, South Africa.

Latitude: 32°05'56.2" **Longitude:** 28°18'16.5"

The decanting site is situated within 500m from the main site. Seen on the locality map below as the open space to the right of the site behind the warehouse building.

Locality Map



General:

The Idutywa Magistrate Offices is an existing fully occupied and fully operational public building and is located in the CBD of Idutywa, with existing buildings and services.

The current site is fully fenced and walled however, being situated in the busy CBD area of the town, hoarding and securely enclosing the site during the construction phase will secure the site from any intruders that could endanger the workforce or visa verse. Hoarding has been measured and allowed in the tender document and should be priced and allowed for accordingly.

Electrical, water and sewer connections are existing on the main and temporary connecting points will be pointed out on the Decanting site.

Decanting :

It must be emphasised that the public service facility must remain fully operational for the duration of the contract and therefore the entire Magistrate Office facility needs to be decanted to a nearby vacant site, within 500m from the main site, and accommodated in temporary prefabricated units.

No work can commence on the repairs and renovations to the main office site until the decanting site is fully completed and ready for occupation of the staff. Once the offices have been decanted the contractor may proceed with the work on the main site.

Once the works is completed on the main site the staff and facilities are to be decanted back to the renovated offices.

The works will be completed in three (3) sections, namely:

- ***Section 1 – Decanting Site & relocating court facilities to the decanting site – 6 Months***
- ***Section 2 – Refurbishment/Construction of Court Buildings on main site – 15 Months***
- ***Section 3 – Decant back to Renovated Courts & de-establish decanting site - 1 Month***

The above has been measured and provided for in the tender document and should be priced accordingly.

The Contractor is to take careful note of the above and allow for the above in his programme and pricing.