

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

ITEM NO	BILL				
	UNIT	QUANTITY	RATE	AMOUNT	
	<p><b><u>SECTION NO. 1: PRELIMINARIES</u></b></p> <p><b><u>BILL NO. 1</u></b></p> <p><b><u>PRELIMINARIES</u></b></p> <p><b><u>BUILDING AGREEMENT AND PRELIMINARIES</u></b></p> <p>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</p> <p>The JBCC Principal Building Agreement contract data form an integral part of this agreement</p> <p>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, amended as hereinafter described</p> <p>The contractor is deemed to have referred to the above mentioned documents for the full intent and meaning of each clause</p> <p>The clauses in the above mentioned documents are hereinafter referred to by clause number and heading only</p> <p>Where any item is not relevant to this agreement such item is marked N/A signifying "not applicable"</p> <p>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 above mentioned documents</p> <p><b><u>PREAMBLES FOR TRADES</u></b></p> <p>The General Preambles for Trades 2008 published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said General Preambles will be entertained</p> <p>Supplementary preambles and/or specifications are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles</p> <p>The contractor's prices for all items throughout these bills of quantities shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications</p> <p><b><u>STRUCTURE OF THIS PRELIMINARIES BILL</u></b></p> <p>Section A : A recital of the headings of the individual clauses in the aforementioned JBCC Principal Building Agreement</p> <p>Section B : A recital of the headings of the individual clauses in the aforementioned JBCC General Preliminaries</p> <p>Section C : Any special clauses to meet the particular circumstances of the project</p> <p><b><u>PRICING OF PRELIMINARIES</u></b></p> <p>Should the contractor select Option A in the contract data 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)</p> <p><b><u>SECTION A: PRINCIPAL BUILDING AGREEMENT</u></b></p>				

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	<b>Interpretation (A1-A7)</b>				
	Clause 1.0 - Definitions and interpretation	CONT			
	The following new sub clauses is hereby added to this clause: 1.1 The definition of practical completion is amplified by the addition of the following after the words "for the intended purpose" "and without derogating from the generality of the foregoing, the works and sections thereof shall not be considered to be complete or be capable of being effectively used for the intended purpose, and shall accordingly not be considered to have reached a state of practical completion, if any of the specific requirements have not been met"	CONT			
	The following new sub clauses is hereby added to this clause: 1.2.6 "No waiver or relaxation of any of the provisions or terms of this agreement (or any agreement or other document issued or executed pursuant to or in terms of this agreement) shall operate as an estoppel against a party in respect of any of its rights in terms of this agreement. No failure by a party to enforce any provision of this agreement shall constitute a waiver of such provisions or affect in any way such party's rights to require the performance of such provision at any time in the future, nor shall a waiver of a subsequent breach nullify the effectiveness of the provision itself" 1.2.7 "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, imposts, establishment charges, overheads, profit and all other obligations arising out of the 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 plant, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary" 1.2.8 "If the contractor constitutes a joint venture consortium or other unincorporated grouping of two or more persons: 1.2.8.1 these persons are deemed to be jointly and severally liable to the	CONT			
	F:..... V:..... T:.....	Item			
	Clause 2.0 - Law, regulations and notices	CONT			
	Clause 2.5 is added:2.5 "Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993. It is specifically stated that the employer shall prepare a documented health and safety specification for the works for a copy of the relevant specification and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the provisions of the aforementioned health and safety specification The contractor shall:2.5.1 Comply with the health and safety specification for the works2.5.2 Prepare and agree with the health and safety consultant the health and safety plan for the works2.5.3 Co-operate with the health and safety consultant in all respects2.5.4 Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification2.5.5 Conform to the conditions contained in the employer's safety specification"	CONT			
	F:..... V:..... T:.....	Item			
	Clause 3.0 - Offer and acceptance	CONT			
	F:..... V:..... T:.....	Item			
	Clause 4.0 - Cession and assignment	CONT			
	F:..... V:..... T:.....	Item			
	Clause 5.0 - Documents	CONT			
	Value Added Tax	CONT			
	Provision is made in the summary page of these bills of quantities for the inclusion of Value Added Tax (VAT)	CONT			
	F:..... V:..... T:.....	Item			

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ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Clause 6.0 - Employer's agents	CONT			
	F:..... V:..... T:.....	Item			
	Clause 7.0 - Design responsibility	Item			
	The following sub clauses are hereby added: 7.4 "Any subcontractor whose subcontract involves design work will be required to sign an indemnity in order to provide to the employer evidence of "professional indemnity" insurance for such design work" 7.5 "If the contractor fails to obtain the necessary design warranties and/or indemnities from the subcontractors, the design responsibility shall be deemed to devolve upon the contractor"	CONT			
	F:..... V:..... T:.....	Item			
	<b>Insurances and securities (A8-A11)</b>				
	Clause 8.0 - Works risk	CONT			
	Clause 8.4 is deemed to be deleted and replaced to read as follows: "The limit of the contractor's liability shall not exceed an amount equal to twice the contract value"	CONT			
	Clause 8.7 is deleted and replaced to read as follows: "The contractor shall immediately inform the principal agent and the employer, of any physical loss and damage to the works that comes to his attention	CONT			
	F:..... V:..... T:.....	Item			
	Clause 9.0 - Indemnities	CONT			
	Clause 9.1.1 is deemed to be deleted in its entirety and replaced to read as follows: "Death or bodily injury or illness of any person or physical loss or damage to any property other than the works [9.2.7] arising out of or due to the execution of the works or presence on and/or occupation of the site by the contractor and/or its subcontractors. Should such an event occur, the contractor and/or its subcontractors shall forthwith give notice to the principal agent"	CONT			
	F:..... V:..... T:.....	Item			
	Clause 10.0 - Insurances	CONT			
	F:..... V:..... T:.....	Item			
	Clause 11.0 - Securities	CONT			
	F:..... V:..... T:.....	Item			
	<b>Execution (A12 - A17)</b>				
	Clause 12.0 - Obligations of the parties	CONT			
	F:..... V:..... T:.....	Item			
	Clause 13.0 - Setting out	CONT			
	F:..... V:..... T:.....	Item			
	Clause 14.0 - Nominated subcontractors	CONT			
	F:..... V:..... T:.....	Item			
	Clause 15.0 - Selected subcontractors	CONT			
	F:..... V:..... T:.....	Item			
	Clause 16.0 - Direct contractors Attendance on direct contractors	CONT			
	F:..... V:..... T:.....	Item			
	Clause 17.0 - Contract instructions	CONT			

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ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	F:..... V:..... T:.....	Item			
	<b>Completion (A18 - A24)</b>				
	Clause 18.0 - Interim completion	N/A			
	Clause 19.0 - Practical completion	Item			
	F:..... V:..... T:.....	Item			
	Clause 21.0 - Defects liability period and final completion	CONT			
	F:..... V:..... T:.....	Item			
	Clause 22.0 - Latent defects liability period F:..... V:..... T:.....	Item			
	Clause 23.0 - Revision of the date for practical completion	CONT			
	The following sub clause is hereby amended by adding the following after the word "conditions" : 23.1.1 "The contractor shall indicate and allow for five working days in his programme for the works and opposite this item or in his rates for the cost of all delays as a result of adverse weather conditions which the contractor has deemed average This float which is to be included in the contractor's programme may also be used for any other critical path delays which the contractor may become entitled to, at the sole discretion of the principal agent"	CONT			
	Clause 23.2.12 is deemed to be deleted in its entirety	CONT			
	Clause 23 has been amended by the addition of the following subclauses: 23.9 "Revision to the date for practical completion shall only be considered when work on the critical path of the approved programme for the works is delayed" 23.10 "Notwithstanding anything to the contrary, the contractor shall not be entitled to a revision to the date for practical completion for delays arising from Municipal or other interruptions in energy supply to the site" 23.11 "Irrespective of whether or not the principal agent rules that the contractor is entitled to a revision of the date for practical completion, the principal agent shall nevertheless at any time, be entitled to issue a contract instruction to accelerate the progress of the remaining work, to ensure that the works are completed by the date for practical completion Upon receipt of such instruction, the contractor shall take necessary steps to ensure that the works are completed timeously, including the provision by him of additional resources, plant, manpower, etc and the working of overtime or additional overtime beyond that contemplated at the time of tender (at all times adhering to the regulations and requirements of all authorities) and by all other adequate and proper means and methods. The contractor shall prove that such steps are being taken if called upon to do so"	CONT			
	F:..... V:..... T:.....	Item			
	Clause 24.0 - Penalty for late or non-completion F:..... V:..... T:.....	Item			
	<b>Payment (A25 - A27)</b>				
	Clause 25.0 - Payment	CONT			
	The following new sub clauses are hereby added: 25.18 "All fluctuations in costs, with the exception of fluctuations in the rate of value added tax, shall be for the account of the contractor" 25.19 "Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance"	CONT			
	F:..... V:..... T:.....	Item			
	Clause 26.0 - Adjustment of the contract value and final account	CONT			

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	The following new sub clause is hereby added: 26.14 "All costs incurred by the contractor in the preparation of claims shall be borne by the contractor. The contractor shall review, assess and adjudicate any claims received by him from any subcontractor and thereafter submit same to the principal agent with a recommendation to assist the principal agent in adjudicating the claim [26.6]"	CONT			
	F:..... V:..... T:.....	Item			
	Clause 27.0 - Recovery of expense and/or loss F:..... V:..... T:.....	Item			
	<b>Suspension and termination (A28 - A29)</b>				
	Clause 28.0 - Suspension by the contractor	CONT			
	F:..... V:..... T:.....	Item			
	Clause 29.0 - Termination Clause 29.0 is deemed to be amended by the addition of the following sub-clause: 29.1.4 is placed under provisional or final liquidation	CONT			
	F:..... V:..... T:.....	Item			
	<b>Dispute resolution (A30)</b>				
	Clause 30.0 - Dispute resolution	Item			
	<b>SECTION B: GENERAL PRELIMINARIES</b>				
	<b>Definitions and interpretation (B1)</b>				
	Clause 1.1 - Definitions F:..... V:..... T:.....	Item			
	Clause 1.2 - Interpretation F:..... V:..... T:.....	Item			
	<b>Documents (B2)</b>				
	Clause 2.1 - Checking of documents The items in these bills of quantities are to be read and priced in conjunction with and the descriptions regarded as amplified by the Model Preambles for Trades as recommended and published by the Association of South African Quantity Surveyors, 2008 edition, and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained. F:..... V:..... T:.....	Item			
	Clause 2.2 - Provisional bills of quantities These bills of quantities shall not be used for ordering purposes	CONT			
	F:..... V:..... T:.....	Item			
	Clause 2.3 - Availability of construction information	CONT			
	F:..... V:..... T:.....	Item			
	Clause 2.4 - Ordering of materials and goods F:..... V:..... T:.....	Item			
	<b>Previous work and adjoining properties (B3)</b>				
	Clause 3.1 - Previous work - dimensional accuracy	CONT			
	Clause 3.1 is amended by the addition of the following at the end of the paragraph: "In the event that the contractor fails to notify the principal agent to the contrary, it is deemed that the works is dimensionally accurate"	CONT			
	F:..... V:..... T:.....	Item			
	Clause 3.2 - Previous work - defects F:..... V:..... T:.....	Item			
	Clause 3.3 - Inspection of adjoining properties	CONT			

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	<p>Clause 3.4 - Existing services Various existing services including but not limited to storm water, sewer, water, telephone and electrical cross the site and the contractor shall make all necessary allowances for all unforeseen deviations and protection of services in the Programme. The contractor shall be solely responsible for ensuring that every necessary precaution is taken to protect all existing services from any damage. The contractor shall furthermore ensure that no services are cut off to any of the existing trading areas during deviations and the like. Should this, however, not be possible then the contractor shall timeously notify the principal agent of this so that arrangements may be made with the employer for identification as to when such work may be executed. F:..... T:..... V:..... T:.....</p>	Item			
	<p><b>The site (B4)</b></p> <p>Clause 4.1 - Handover of site in stages F:..... V:..... T:.....</p>	Item			
	<p>Clause 4.2 - Enclosure of the works</p>	CONT			
	<p>F:..... V:..... T:.....</p>	CONT			
	<p>Clause 4.3 - Geotechnical and other investigations F:..... V:..... T:.....</p>	Item			
	<p>Clause 4.4 - Encroachments F:..... V:..... T:.....</p>	Item			
	<p>Clause 4.5 - Existing premises occupied F:..... V:..... T:.....</p>	Item			
	<p>Clause 4.6 - Services - known F:..... V:..... T:.....</p>	CONT			
	<p>F:..... V:..... T:.....</p>	Item			
	<p><b>Management of contract (B5)</b></p> <p>Clause 5.1 - Management of the works F:..... V:..... T:.....</p>	Item			
	<p>Clause 5.2 - Progress meetings F:..... V:..... T:.....</p>	Item			
	<p>Clause 5.3 - Technical meetings F:..... V:..... T:.....</p>	Item			
	<p><b>Samples, shop drawings and manufacturer's instructions (B6)</b></p> <p>Clause 6.1 - Samples of materials F:..... V:..... T:.....</p>	Item			
	<p>Clause 6.2 - Workmanship samples F:..... V:..... T:.....</p>	Item			
	<p>Clause 6.3 - Shop drawings Clause 6.3 is hereby amended by the addition of the following: General responsibilities The Contractor shall provide a person or persons who shall be available immediately upon commencement of the contract, whose responsibility will be: a) To familiarise himself with all drawings produced by the professional team. This will involve a clear understanding of services and element co-ordination performed by the architect, in order that subcontractors can be properly briefed b) To provide the professional team with comprehensive lists of shop drawings to be prepared by relevant subcontractors. c) To check all shop drawings for sufficiency prior to submission to the relevant consultant in the professional team. It is expected that such checking will include all co-ordination and pro-active resolution of any conflicting services and elements</p>	Item			
	<p>Clause 6.4 - Compliance with manufacturer's instructions F:..... V:..... T:.....</p>	Item			
	<p><b>Deposits and fees (B7)</b></p> <p>Clause 7.1 - Deposits and fees F:..... V:..... T:.....</p>	Item			

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ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>Temporary services (B8)</b>				
	Clause 8.1 - Water F:..... V:..... T:.....	Item			
	Clause 8.2 - Electricity F:..... V:..... T:.....	Item			
	Clause 8.3 - Ablution and welfare facilities F:..... V:..... T:.....	Item			
	Clause 8.4 - Communication facilities F:..... V:..... T:.....	Item			
	<b>Prime cost amounts (B9)</b>				
	Clause 9.1 - Responsibility for prime cost amounts	CONT			
	F:..... V:..... T:.....	Item			
	<b>Attendance on subcontractors (B10)</b>				
	Clause 10.1 - General attendance F:..... V:..... T:.....	Item			
	Clause 10.2 - Special attendance	CONT			
	F:..... V:..... T:.....	Item			
	<b>General (B11)</b>				
	Clause 11.1 - Protection of the works Refer also to further information as included in Section C - Specific Preliminaries F:..... V:..... T:.....	Item			
	Clause 11.2 - Protection/isolation of existing works and works occupied in sections Refer also to further information as included in Section C - Specific Preliminaries F:..... V:..... T:.....	Item			
	Clause 11.3 - Security of the works	Item			
	F:..... V:..... T:.....	Item			
	Clause 11.4 - Notice before covering work F:..... V:..... T:.....	Item			
	Clause 11.5 - Disturbance	CONT			
	Clause 11.5 is amended by the addition of the following at the end of the paragraph: "All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the construction period or contract value whatsoever " F:..... V:..... T:.....	Item			
	Clause 11.6 - Environmental disturbance	CONT			
	Clause 11.7 - Works cleaning and clearing F:..... V:..... T:.....	Item			
	Clause 11.8 - Vermin F:..... V:..... T:.....	Item			
	Clause 11.9 - Overhand work F:..... V:..... T:.....	Item			
	Clause 11.10 - Tenant installations F:..... V:..... T:.....	Item			
	Clause 11.11 - Advertising F:..... V:..... T:.....	Item			

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	<p><b>Preliminaries Schedule (B12)</b></p> <p>This schedule contains all variables referred to in this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of the Preliminaries</p> <p>PRE-TENDER INFORMATION</p> <p>Pre-tender variables are given hereunder:-</p> <p>Clause (and reference) 12.1 Provisional bills of quantities (2.2) The quantities are provisional Yes</p> <p>12.2 Availability of construction documentation. (2.3) Construction documentation is complete Yes</p> <p>12.3 Water (8.1) Option A (by contractor) No Option B (by employer - free of charge) No Option C (by employer - metered) Yes A water meter shall be installed by the contractor and the contractor shall make the connection, keep a weekly record of consumption and re-instate the water supply upon completion</p> <p>12.4 Electricity(8.2) Option A (by contractor)No Option B (by employer - free of charge)No Option C (by employer - metered)Yes An electricity meter shall be installed by the contractor and the contractor shall make the connection (approximately 230 Amp), keep a weekly record of consumption and re-instate the electrical supply upon completion</p> <p>12.5 Ablution and welfare facilities (8.3) Option A (by contractor) Yes Option B (by employer) No</p> <p>12.6 Communication facilities (8.4) Telephone Yes Facsimile Yes E-mail Yes</p> <p>12.7 Protection/isolation of existing/sectionally(11.2) occupied works. Protection of existing buildings to remain in state prior to works commencing.All precautionary protection to be installed, etc.Yes</p> <p><b>SECTION C: SPECIFIC PRELIMINARIES</b></p> <p>The following clauses are additional to, or augment the clauses contained in sections "A" and "B" of these preliminaries</p> <p><b>CONTRACTOR TO BE RESPONSIBLE</b> The contractor acknowledges that the principal objective of his appointment is his expert knowledge in the execution of the scope of work of this contract. The contractor shall therefore be solely responsible for all aspects of the construction of the works including but not limited to quality, safety, management, resourcing, programming and co-ordination of sequencing of work all as required for the type of project described within the time limits and quality standards specified</p> <p><b>STANDARD CONTRACT HANDOVER PROCEDURE</b> The contractor shall comply with the Contract Handover Procedure as instructed by the principal agent</p> <p>Site instructions Contract Instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor F:..... V:..... T:.....</p> <p>Warranties for material and workmanship Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the final completion of the contract. The warranty shall state that workmanship, materials and installation are warranted for a specified period from the date of final completion and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice to do so. The warranty will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor F:.....V:.....T:.....</p>				
		Item			
		Item			
		Item			
		Item			



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	Co-operation of the contractor for cost management It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget. The principal agent undertakes to make available to the contractor all budgetary allowances and cost assessments/reports to enable the proper procedure to be implemented and the contractor shall attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures, as necessary, to all subcontractors F:.....V:.....T:.....	Item			
	Testing of windows for water tightness Each window shall be tested for water tightness with water sprayed on using adequate pressure. If in the opinion of the principal agent, the pressure proves to be inadequate, then the pressure shall be boosted by means of compressed air or other approved means F:..... V:..... T:.....	Item			
	Testing of flat roof waterproofing for water tightness Flat roof waterproof areas shall be prepared with small sand dykes around them of a size and enclosing an area approved by the principal agent, flooded with water and kept "ponded" for at least 36 hours as a test to ensure the water tightness of the waterproofing and before any further construction work is carried out above the waterproofingF:..... V:..... T:.....	Item			
	<b><u>FINANCIAL ASPECTS</u></b>				
	<b>Overtime</b>				
	Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised, in writing, prior to execution thereof, that costs for such overtime are to be borne by the employer	Item			
	<b>Prices for variations</b>				
	Where prices or quotations for variations are submitted by the Contractor during the currency of the contract, it shall be clearly understood that these are for the purpose of consideration only and that there is not assumption of acceptance	Item			
	<b><u>GENERAL</u></b>				
	<b>Copyright</b>				
	The ownership of the copyright in and to: all drawings, specifications, models and documents of any nature delivered to the Contractor or produced by or on behalf of the Contractor in connection with the works; and, the artistic character and/or artistic design of the works, shall remain vested in and/or is hereby assigned to the Employer by the Contractor	Item			
	<b>Confidentiality</b>				
	The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works No information regarding this project shall be published or disclosed without the prior written consent of the	Item			
	<b>Omissions of work for which provisional sums/budgetary allowances have been allowed</b>				
	The selected / nominated subcontract amounts provided in these bills of quantities include work to be executed in accordance with the employer's requirements. The contractor accepts that such work may, at the principal agent's discretion, be omitted or added from this contract and executed under separate contract/s. In such case, the contractor shall allow access to the handed over areas of the works to allow such separate contractors to proceed with such work prior to handover and/or expiry of the defects liability period The contractor hereby accepts that he shall not be entitled to any profit mark-up on the omitted work and that no claim for loss of profit shall be entertained	Item			
	<b>Unauthorised persons</b>				

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BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>The contractor shall at all times strictly exclude all unauthorised persons from the works No workmen or labourers are to be allowed under any circumstances to sleep or deposit any kit on the premises. The contractor must provide any necessary independent shelter or shed required for any labour or watchman left on the site Furthermore the contractor shall take all measures necessary to ensure that no workmen are allowed into the building at any time after practical completion without the specific permission of principal agent</p> <p><b><u>COMMUNITY LIASON OFFICER ALLOWANCE</u></b></p> <p>Make a Budgetary allowance for a Community Liason Officer - representing both the Community and the students - for the number of months equal to the project duration specified</p> <p>Make a Budgetary allowance for a Community Liason Officer - representative of the Community - CLO @ R8000 / month</p> <p>Make an allowance for a Community Liason Officer - representative of the students - CLO @ R6000 / month</p> <p><b><u>SUMMARY OF CATEGORIES</u></b></p> <p><b>Preliminaries and generals @ 6%</b></p>	Item			
		No	10		
		No	10		
		Item	1		
<b>TOTAL - SECTION NO.1 - SKILLS DEVELOPMENT CENTRE - PRELIMINARIES</b>					
<b>SECTION NO. 2: BUILDING WORKS - SKILLS DEVELOPMENT CENTRE</b>					
<b><u>SECTION NO. 2.1 - ADMINISTRATION BLOCK, LECTURE ROOMS AND WORKSHOPS</u></b>					
<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 1</u></b>					
<b><u>EARTHWORKS</u></b>					
NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill					
NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices					
<b><u>SUPPLEMENTARY PREAMBLES</u></b>					
<b>Nature of ground</b>					
The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "hard rock" or "soft rock"					
<b>Classification of materials</b>					
If the contractor considers that any of the excavations are more difficult in nature than excavations in "earth", he shall immediately notify the principal agent and quantity surveyor agent in writing. If the contractor fails to make such notification, the excavations shall be deemed to be in "earth" and shall be measured, and valued, accordingly					
The contractor may, with the prior written permission of the principal agent and in terms of the conditions of contract, use any method he chooses to excavate any class of material, but his chosen method of excavation shall not determine the classification of the materials excavated					
<b>Risk of collapse of sides of excavations</b>					
The contractor shall be responsible for the risk of collapse of all excavated faces. Where excavations do not exceed 1.5m in height, the nature of the precautions to be taken shall be entirely at the contractor's discretion. The contractor shall either temporarily support the excavated faces, or carry the risk of collapse of such faces with all its implications. Where excavations exceed 1.5m in height, the contractor shall maintain all excavated faces in accordance with Government Regulations					
Unless otherwise described, excavations for working space shall include any additional risk of collapse so incurred					

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p><b>Keeping excavations free of water</b></p> <p>The contractor shall protect the excavations from the ingress of water. Any water which occurs in the excavations, whether as a result of seepage, rain, or other causes, shall immediately be removed by the contractor by baling, pumping, or other approved means</p> <p><b>Compaction of all "filling" and "backfilling"</b></p> <p>Unless otherwise described, all "filling" and "backfilling" is hereby deemed to be compacted to 97% Mod.AASHTO density. In the bills of quantities, "AASHTO" is defined as meaning "American Association of State Highway and Transportation Officials"</p> <p><b>Removal, or carting away, of excavated material, or demolished, or other, materials arising from the earthworks</b></p> <p>Descriptions of "removing", or "carting away", of such material shall be deemed to include loading such material onto trucks directly from the works, or, alternatively, from stock piles situated on the site, and taking such material to a registered dump-site that has been located off-site by the contractor for such disposal The contractor is hereby deemed to be responsible for the choice of dumping site. If a dump-site is foreclosed, or unavailable, for whatever reason, it remains the contractor's responsibility to timeously obtain a suitable replacement dump-site without additional cost to the employer</p> <p><b>"Density Tests on Earth and other Filling Materials"</b></p> <p>The contractor will not be entitled to claim for the cost of density, and/or any other, tests that are required in terms of the specification of earth and other materials required for "filling" works, where such tests are a routine requirement contained in the description associated with such parts of the works, and where the costs of such tests are therefore an integral cost of the execution of such parts of the works The contractor will only be reimbursed for the "additional" cost of density, and/or any other, tests that are specifically prescribed in terms of a contract instruction, and which tests represent additional undertaking by the contractor to that required by the aforesaid specification</p> <p><b><u>EXCAVATION, FILLING, ETC., OTHER THAN BULK</u></b></p> <p><b>EXCAVATIONS, ETC</b></p> <p><b>Excavation in earth not exceeding 2m deep for</b></p> <p>Site clearance</p> <p>Footings</p> <p>Trenches - ground beams</p> <p><b>Extra over trench and hole excavations in earth for excavation in</b></p> <p>Soft rock</p> <p>Hard rock</p> <p><b>Extra over all excavations for carting away</b></p> <p>Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor, distance of +- 10 KM away from site</p> <p><b>Risk of collapse of excavations</b></p> <p>Sides of trench and hole excavations not exceeding 1.5m deep.</p> <p><b>Keeping excavations free of water</b></p> <p>Keeping excavations free of all water, other than subterranean water.</p> <p><b><u>FILLING, ETC.</u></b></p>				
		m <sup>2</sup>	1615		
		m <sup>3</sup>	2874		
		m <sup>3</sup>	139		
		m <sup>3</sup>	110		
		m <sup>3</sup>	220		
		m <sup>3</sup>	322		
		m <sup>2</sup>	2 475		
		Item	1		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>Earth filling obtained from the excavations and /or prescribed stock piles on site compacted to 97% Mod AASHTO density</b>				
	Backfilling to trenches, holes, etc.	m <sup>3</sup>	281		
	<b>G7 Sand supplied by the contractor, compacted to 97% Mod AASHTO density</b>				
	Filling	m <sup>3</sup>	302		
	<b>Compaction of surfaces</b>				
	Compaction of ground surface under floors, etc., including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 97% Mod. AASHTO density.	m <sup>2</sup>	1829		
	<b><u>TESTS</u></b>				
	<b><u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u></b>				
	"Modified AASHTO Density" test	No	25,00		
	"Natural California Bearing Ratio" test	No	25,00		
	<b><u>LAYER WORKS</u></b>				
	<b>Subbase course of G5 natural gravel material, compacted to 97% Mod AASHTO density</b>				
	Backfilling to trenches, holes, etc	m <sup>3</sup>	216		
	<b><u>WEED KILLERS, INSECTICIDES, ETC</u></b>				
	<b>Soil insecticide in accordance with SANS 5859</b>				
	Under floors, etc., including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming.	m <sup>2</sup>	1 441		
	To bottoms and sides of trenches, etc.	m <sup>2</sup>	248		
	<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.1 - Earthworks</b>				
	<b><u>SECTION NO. 2 - BUILDING WORKS</u></b>				
	<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 2</u></b>				
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	<b>Cost of tests</b>				
	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 principal agent. The testing shall be undertaken by an independent firm, or institution, nominated by the contractor to the written approval of the principal agent. (Test cubes are measured separately)				
	<b>Formwork</b>				
	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 re-conditioning as necessary before re-use				

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Formwork to soffits of solid slabs, etc., shall be deemed to be to slabs not exceeding 250mm thick, unless otherwise described				
	Formwork to soffits of slabs, beams, etc., shall be deemed to be propped up exceeding 1.5m and not exceeding 3.5m high, unless otherwise described				
	Formwork to sides of bases, pile caps, ground beams, etc., will only be measurable where it is prescribed in writing by the principal agent for design reasons Formwork necessitated by irregularity, or collapse of excavated faces, will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which risk is made in "Earthworks"				
	<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>				
	<b>15MPa/19mm concrete in surface blinding</b>				
	Surface blinding under footings and bases	m <sup>3</sup>	20		
	<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>				
	<b>30MPa/19mm concrete</b>				
	Strip footings	m <sup>3</sup>	232		
	Ground beams	m <sup>3</sup>	69		
	Raft slab	m <sup>3</sup>	206		
	<b><u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u></b>				
	<b>30MPa/19mm concrete</b>				
	Beams	m <sup>3</sup>	69		
	Slabs, roof slabs including beams and inverted beams	m <sup>3</sup>	92		
	<b><u>TEST BLOCKS</u></b>				
	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	m <sup>3</sup>	15		
	<b><u>CONCRETE SUNDRIES</u></b>				
	<b>Finishing top surfaces of concrete smooth with a wood float</b>				
	Surface beds, slabs, etc	m <sup>2</sup>	2011,8		
	<b>Finishing top surfaces of concrete smooth with a steel float</b>				
	Surface beds,slabs, etc to falls	m <sup>2</sup>	1337,95		
	<b>Finishing top surfaces of concrete smooth with a powerfloat float</b>				
	Surface beds,slabs, etc to falls	m <sup>2</sup>	673,81		
	<b><u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u></b>				
	<b>Rough formwork to sides</b>				
	Beams propped up exceeding 3.5m and not exceeding 5.5m high	m <sup>2</sup>	330		
	Slabs propped up exceeding 3.5m and not exceeding 5.5m high	m <sup>2</sup>	494		
	<b>Rough formwork to soffits</b>				
	Slabs not exceeding 250mm thick propped up not exceeding 3.5m high	m <sup>2</sup>			
	Slabs exceeding 250mm thick propped up exceeding 3.5m high	m <sup>2</sup>	297		
	<b><u>MOVEMENT JOINTS, ETC</u></b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>Form expansion joint with 10mm jointex between horizontal concrete and masonry surfaces, including vertical approved sealant</b>				
	Not exceeding 300mm high wide between edges of raft slab and masonry walls	m	207		
	Not exceeding 300mm high wide between edges of roof slab and masonry walls	m	69		
	<b>Saw-cut joints</b>				
	3 x 50mm Saw-cut joints in top of concrete	m	167		
	<b><u>REINFORCEMENT (PROVISIONAL)</u></b>				
	<b>Plain round mild steel bar reinforcement and high yield deformed steel bar reinforcement, including hoisting or lowering and fixing in position complete</b>				
	Bar reinforcement of varying diameters	t	57		
	<b>Fabric reinforcement</b>				
	Type 193 Mesh reinforcement in concrete surface beds, slabs, etc	m <sup>2</sup>	297		
	<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.2 Concrete, Formwork And Reinforcement</b>				
	<b><u>SECTION NO. 2 - BUILDING WORKS</u></b>				
	<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 3</u></b>				
	<b><u>MASONRY</u></b>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b><u>BRICKWORK</u></b>				
	<b>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar in loadbearing walls etc</b>				
	<b><u>SUPERSTRUCTURE</u></b>				
	<b>Loadbearing brickwork</b>				
	Half brick thick walls.	m <sup>2</sup>	532		
	280mm Hollow wall of two half bricks	m <sup>2</sup>	2 396		
	One brick thick walls	m <sup>2</sup>	132		
	<b><u>BRICKWORK SUNDRIES</u></b>				
	Splayed mortar fillet one course high in 115mm cavity	m			
	Closing 115mm cavity of hollow wall vertically with brickwork half brick wide	m	20		
	<b>Bagging of 1:3 cement and sand mixture</b>				
	On brick walls, piers, etc	m <sup>2</sup>	441,0		
	<b>Galvanised hoop iron ties, etc.</b>				
	40 x 1.6mm Galvanised hoop iron wall ties 500mm long with one end shot pinned to concrete and other end bent and built into brickwork.	m	285		
	<b>2.5mm Galvanised brick reinforcement</b>				
	75mm Wide reinforcement built in horizontally	m	990		

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	150mm Wide reinforcement built in horizontally	m	5 847		
	<b>Prestressed prefabricated concrete lintels, including temporary supports</b>				
	230 x 76mm Lintels in lengths not exceeding 3m	m	110		
	230 x 76mm Lintels in lengths exceeding 3m and not exceeding 4.5m	m	5		
	230 x 76mm Lintels in lengths exceeding 4.5m and not exceeding 6m	m	6		
	230 x 76mm Lintels in lengths exceeding 12m and not exceeding 13.5m	m	13		
	<b>"Allied Concrete" Pre-stressed fabricated lintels, including temporary support</b>				
	345 x 75mm lintels in length exceeding 3m not exceeding 4.5m	m	109,447		
	230 x 75mm lintels in length not exceeding 3m	m	5		
	115 x 75mm lintels in length not exceeding 3m	m	6		
	<b><u>FIBRE-CEMENT WINDOW SILLS</u></b>	H2			
	All internal sills to be 12 - 15mm fibre cement and to be painted as internal walls. To be screwed to brickwork.	m			
	<b><u>FACE BRICKWORK</u></b>				
	Extra over ordinary brickwork for facebricks blended on site from different facebrick types in English bond including pointing to match existing - 222 x 106 x 73mm Platinum Satin FBX Face Brick Standard clay bricks.				
	Face brickwork in superstructure.	m <sup>2</sup>	1 353		
<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.3 -Masonry</b>					
<b><u>SECTION NO. 2 - BUILDING WORKS</u></b>					
<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 4</u></b>					
<b><u>WATERPROOFING</u></b>					
NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill					
NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices					
<b><u>SUPPLEMENTARY PREAMBLES</u></b>					
Descriptions and preambles in other trades and bills in other sections of the works. If necessary, reference shall be made to other trades and preambles in other sections of the works for full preambles and full descriptions of items which might not be fully described in this bill, but which shall apply equally to the works in this bill, unless otherwise described.					
<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>					
<b>One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</b>					
	In walls and sills	m <sup>2</sup>	161		
<b>One layer 250 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</b>					
	Under surface beds	m <sup>2</sup>	3350		
<b><u>WATERPROOFING TO ROOFS ETC</u></b>					

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p><b>Prime with one coat bitumen primer and one layer 4mm fully bonded waterproof membrane comprising two bitumen layers reinforced with woven spunbonded polyester fabric and coated with polyethelene film for heat bonding, laid with 100mm side and 150mm end laps</b></p> <p>On flat roofs</p> <p>On turn-ups and turn-downs exceeding 300mm girth</p> <p><b>Two coats bituminous aluminium paint</b></p> <p>On waterproofing to roofs</p> <p><b><u>SEALING STRIPS, JOINT SEALANTS, ETC.</u></b></p> <p><b>Polysulphide sealing compound, including backing cord, bond-breaker, primer, etc.</b></p> <p>5 x 50mm Saw cut joints to floors</p> <p>30 x 10mm In expansion joints in walls etc including raking out expansion joint filler as necessary</p>	m <sup>2</sup> m <sup>2</sup> m <sup>2</sup> m <sup>2</sup> m m	415 50 415 386 444		
<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.4 -Waterproofing</b>					
<b><u>SECTION NO. 2 - BUILDING WORKS</u></b>					
<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 5</u></b>					
<b><u>ROOF COVERINGS</u></b>					
NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill					
NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices					
<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>					
Roof sheeting and its accessories is to be guaranteed against failure in material and workmanship for a period of 10 years after the date of practical completion. And Test the roof sheeting for water-tightness.					
<b>Chromadek Roof sheeting fixed to steel intermediate purlins at MAX 1200mm, on 38mm x 114mm prefabricated steel trusses, trusses spaced at max 900mm c/c on 38mm x 114mm timber wall plate, with sisilation underlay. all in accordance with the manufacturer's specifications . Colour: Charcoal Grey</b>					
	Roof covering with a 22.5 degree pitch	m <sup>2</sup>	1 180		
	Extra on roof sheeting for 6 degree cranked central ridge	m	127		
	Extra on roof sheeting for 0,55mm thick 700mm cover Dove Grey COLORPLUS® 700 profile profile triple crank, fixed in accordance with the manufacturer's recommendations, fixed to steel intermediate purlins at MIN 1200mm centres to structural engineer's detail and specification	m	127		
	Drip flashing 150mm girth, once bent in the length	m	295		
	Ridge (Apex) flashing 150mm girth	m	295		
	<b>Oval Skylight Note: 1000 x 18mm Multilight glazing system panels with powder coated structural aluminium connectors and components to specialist detail and specification. Glazing colour: reflektive grey; Alumium colour: White</b>				
	Roof covering with a 5 ° pitch	m <sup>2</sup>	514		
<b><u>ROOF INSULATION</u></b>					



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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p><b>LAMBDABOARD laminated polyisocyanurate core board with a minimum core density of 34 kg/m<sup>3</sup>, minimum thickness of 30mm; in widths of 1220mm with a 1.25 (Km<sup>2</sup>/W) R-Value. Finish with white mineral and mineral natural laminated on each side with a 9mm plasterboard laminated on one side using Rigibond 5 adhesive. LAMBABORD must be installed using nylon anchors (appr. 4/m<sup>2</sup>) counter sunk into the board with a fibre tape used on the joints and on the fixings, all to be installed as per the manufacturer's specifications</b></p> <p>Insulation laid taut over steel purlins which are at approximately 1,3m centres and fixed concurrently with roof coverings, including galvanised steel straining wires.</p>	m <sup>2</sup>	487		
<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.5 - Roof Coverings</b>					
<b><u>SECTION NO. 2 - BUILDING WORKS</u></b>					
<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 6</u></b>					
<b><u>CARPENTRY AND JOINERY</u></b>					
NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill					
NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices					
<b><u>SUPPLEMENTARY PREAMBLES</u></b>					
Decorative laminate finish					
Laminate finish shall be glued under pressure. Edge strips shall be butt-jointed at junctions with adjacent similar finish.					
Joinery					
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.					
The joinery dimensions stated hereinunder are the finished sizes, after planing, etc.					
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.					
Fixing					
Items described as "nailed" shall be deemed to be fixed with hardened steel nails, or shot pins, to brickwork, or concrete.					
<b>Acoustic Seals</b>					
Either bulb compression seals or double blade seals to all sides of door frames to be supplied and installed as per architect's specifications					
<b><u>DOORS</u></b>					
<b><u>LAMINATED SOLID DOORS</u></b>					
<b>40mm Thick solid flush laminated doors with commercial veneer for painting both sides and hardwood edge-strips, the doors hung to swing in pressed steel frames (frames elsewhere measured)</b>					
	D01 - Door size overall 769 x 2390mm high	No	25		
	D02 - Door size overall 885 x 2390mm high	No	9		
	D03 - Door size overall 877 x 2390mm high	No	3		
	D04- Door size overall 813 x 2390mm high	No	9		
	D05 - Door size overall 1200 x 2390mm high	No	3		
	D06 - Door size overall 1500 x 2465mm high	No	1		

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	D07 - Door size overall 1677 x 2390mm high	No	5		
	D08 - Door size overall 1850 x 2390mm high	No	2		
	<b>50mm folding doors including sliding gear, ironmongery, etc</b>				
	D09 -Double door for opening 2 862 x 2 600mm high fixed to brickwork or concrete	No	1		
	<b><u>FIRE RATED DOORS</u></b>				
	<b>18 Gauge A40 galvaneal door with interlocking edge seam with square hinge and bevelled lock edge, prime painted, fire rating 1H30 using a universal (ME) door frame( including frames)</b>				
	D01 -Double door for opening 875 x 2 000mm high fixed to brickwork or concrete	No	4		
	<b><u>NOTICEBOARDS, KEYBOARDS, DUCKBOARDS,ETC</u></b>				
	<b>Softboard</b>				
	12mm Pinning boards glued to plastered walls	m <sup>2</sup>	3		
	<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.6 - Carpentry and Joinery</b>				
	<b><u>SECTION NO. 2 -BUILDING WORKS</u></b>				
	<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 7</u></b>				
	<b><u>CEILINGS AND PARTITIONS</u></b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill</p> <p>Descriptions and preambles in other trades and bills in other sections of the works. If necessary, reference shall be made to other trades and preambles in other sections of the works for full preambles and full descriptions of items which might not be fully described in this bill, but which shall apply equally to the works in this bill, unless otherwise described.</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete. Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres and where described as "bolted" the bolts have been measured elsewhere. Items described as "screw-up" shall be deemed to include screwing up with and including 25mm "Gyproc Rhinoboard" sharp point screws to fibre, plastic or steel at minimum 150mm centres</p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><b>Bulkheads</b></p> <p>Bulkheads are defined as those portions of ceilings which are stepped down from the general ceiling level in a particular room or area and which generally occur along the perimeter. Their purpose is either to conceal services or to create architectural features</p> <p>Bulkheads dimensions are measured net from ceiling to ceiling, additional cost of bulkhead substructure measured separately.</p> <p>Where bulkheads are more than 1 000mm wide and/or high at its narrowest, it shall be described as ceilings and/or vertical ceilings and included in the relevant ceilings quantity.</p> <p>Where vertical ceilings occur, it can be assumed that one internal and one external corner will occur and contractors are to allow in the m<sup>2</sup> rate for these labour items.</p> <p>In general bulkheads are measured where it occurs in a constant girth and so described and given in meters stating the girth.</p> <p><b>Steel Components</b></p> <p>Where bulkheads are of an irregular shape the flat area, which is more than 1 000mm wide at its narrowest, is included in the suspended ceilings quantity and the vertical component in the vertical ceilings quantity. However, for the purpose of simplifying pricing, where vertical ceilings are less than 1 000mm in height, the work is given in meters stating the height or it forms part of a bulkhead girth also given in meters.</p> <p>Where vertical ceilings occur, it can be assumed that one internal and one external corner will occur and contractors are to allow in the m<sup>2</sup> rate for these labour items.</p> <p>Contractors are to allow in their price for the above mentioned when pricing the nailed up ceilings section of this tender document as no claims will be entertained in this regard upon final account settlement.</p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><b>Openings</b></p> <p>Prices for openings for light fittings, ventilation grilles, air conditioning diffusers, etc are to include for any necessary additional support, trimming around, etc</p> <p>Electrical light fittings, diffusers, panels etc are generally "lay-" 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><b><u>PRICING NOTES</u></b></p>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>All ceilings are to be priced as suspended not exceeding 1m from soffits, and an additional extra over item will be measured where additional cost for higher suspension subgrid systems will be allowed for.</p> <p>Bulkheads are to be measured in vertical and/or horizontal components. Where bulkheads are of irregular shape, the components should be included as either vertical or horizontal bulkheads not exceeding 1 000mm width or height, If exceeding then components would be included in ceiling quantity as stated above.</p> <p>Contractors are to allow in their price for the above mentioned when pricing the nailed up ceilings section of this tender document as no claims will be entertained in this regard.</p> <p><b>Skimmed Plaster</b></p> <p>Where so described skimming / plastering to plasterboard as a whole (ceilings or partitions) shall be priced for a 2mm lightweight retarded semi hydrate gypsum plaster applied to the complete surface as a smooth polished application.</p> <p>Skimming/Plastering deemed to be included in the rate</p> <p><b><u>SUSPENDED CEILINGS</u></b></p> <p><b>Ecophone Gedina 1200 x 600 x 15mm high density glass wool core acoustic ceiling tiles with primed edges suspended on, and including Gyproc hanger strap 19mm fixed to main tee, Gypframe T cross tee to be installed 600mm into 120mm long cross tee to create 600 x 600mm ceiling grid, all according to manufactures specifications</b></p> <p>Ceilings suspended not exceeding 1m below steel truss</p> <p>Extra over ceiling for opening for 600 x 600mm light fitting</p> <p>Extra Over ceiling for opening 276mm diameter downlights</p> <p>Extra over ceiling for opening for 600 x 600mm ventilation grille</p> <p>Extra over ceiling for opening for sprinkler head</p> <p>Extra over ceiling opening for projector screens</p> <p><b>9mm Gyprex white ceiling tile 600 X 600 x 9mm thick. Vinyl faced tile with a gypsum core and donn T38 FR exposed grid, complete as per the architect's drawing and manufacturer's specifications.</b></p> <p>Ceilings suspended not exceeding 1m below truss</p> <p>Extra over ceiling for opening for sprinkler head.</p> <p>Extra over ceiling for opening for 110mm diameter downlighter.</p> <p>Extra over ceiling for opening for 600 x 600mm light fitting.</p> <p>Extra over ceiling for opening 600 x 600mm for ventilation grille/air conditioning diffuser</p> <p><b>OWA Construct shadowline w-trim, plugges and screwed</b></p> <p>"SM25" Shadowline cornice</p> <p><b><u>INTERNAL BULKHEADS</u></b></p> <p><b>9.5mm Thick "Gyproc Rhinoboard" plasterboard bulkhead fixed at maximum 500mm centres on a "Donn"® QRC T37K" screw-up ceiling grid including hangers etc. with 63mm wide strips of mesh scrim fixed over joints and the whole plasterboard including joints finished with and including 3 to 6mm "Crestestone" skim plaster trowelled to a smooth polished surface complete as per manufacturer's specifications or similar approved</b></p> <p>Vertical component of bulkhead 150mm high, suspended not exceeding 1m below concrete soffits</p>				
		m <sup>2</sup>	513		
		No	23		
		No	50		
		No	23		
		No	14		
		No	6		
		m <sup>2</sup>	77		
		No	2		
		No	43		
		No	23		
		No	35		
		m	297		
		m	144		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.7 - Ceilings and Partitions</b>				
	<b><u>SECTION NO. 2 - BUILDING WORKS</u></b>				
	<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 8</u></b>				
	<b><u>FLOOR COVERINGS</u></b>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	Surface preparation, priming, curing, cleaning, etc.				
	Descriptions of the items below are deemed to include all necessary preparation, priming, mixing, curing, cleaning etc as prescribed by the manufacturers of the various products.				
	<b>Fixing</b>				
	Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc				
	<b><u>FLOOR COVERINGS</u></b>				
	<b><u>VINYL TILING</u></b>				
	Manufactured by "IVC/Mohawk"				
	329 x 659 x 2.5mm thick "Moduleo 55" vinyl floor tiles in colour: jura stone (colour code: 46960), laid with approved adhesive on suitably prepared screed floors, all in accordance with the manufacturer's recommendations				
	Vinyl tile	m2	135		
	<b><u>Skirting</u></b>				
	Vinyl skirting	m	430		
	<b><u>SKIRTING, NOSING, ETC</u></b>				
	16mm Profile MDF skirting 100mm high with 5mm chamfered edge	m	108		
	<b><u>DIVISION STRIPS</u></b>				
	"Kirk Marketing" or similar approved				
	Natural anodised aluminium straight edge	m	24		
	<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.8 - Floor Coverings</b>				
	<b><u>SECTION NO. 2 - BUILDING WORKS</u></b>				
	<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 9</u></b>				
	<b><u>IRONMONGERY</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	<b>IRONMONGERY</b>				
	<b>PREAMBLES</b>				
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades and to the				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	supplementary Preambles				
	<b><u>HINGES, BOLTS, ETC</u></b>				
	WC indicator and turnknob for physically impaired (Stainless steel)	Sets	52		
	<b><u>LOCKS</u></b>				
	Two-lever lockset including lever handles on plate	No	52		
	Three-lever lockset including lever handles on plate	No	48		
	66mm Knob cylinder suitable for master key	No	52		
	Stainless steel bathroom deadlock	No	26		
	55/60 Stainless steel deadbolt	No	52		
	52 x 6mm Stainless steel cylinder escutcheon	No	52		
	<b><u>HANDLES</u></b>				
	300 x 330 x 30mm Stainless steel D shaped offset tubular pull handle including BTB fixing sets	Pairs	52		
	<b><u>PUSH PLATES AND KICK PLATES</u></b>				
	<b><u>Stainless steel plates countersunk screwed along edges at not exceeding 200mm centres</u></b>				
	813 x 200mm kick plate	No	52,00		
	<b><u>DOOR CLOSERS</u></b>				
	EN1154 Rates parallel arm delayed action door closer with bracket fixed to metal	Sets	52,00		
	<b><u>SUNDRIES</u></b>				
	38mm Diameter rubber door stop plugged	No	52,00		
	Polished stainless towel ring	No	18,00		
	Stainless steel double robe hook	No	18,00		
	300 x 300mm High inspection panel, nailed	No	16,00		
	<b><u>BATHROOM FITTINGS</u></b>				
	Polished stainless steel soap holder	No	12,00		
	Polished stainless steel soap basket	No	4,00		
	19mm Diameter chromium plated towel rail 900mm long including end brackets plugged	No	6		
	Polished stainless toilet paper holder without flap	No	25,00		
	32mm stainless steel straight grab bar 750mm lonh, plugged	No	3,00		
	32mm stainless steel dog leg grab rail 900mm girth, plugged	No	3,00		
	484 x 526mm foldable shower seat for wall mounting with surface satin finished, mounting through eight drilling holes, two prefixed white seat battens made of polyethylene, including stainless steel screws and dowels. Shower complete with shower head, soap holder	No	4,00		
	<b><u>LETTERS, NAMEPLATES, ETC</u></b>				
	500 x 500mm Clear perspex with black lettering numbers to each block	No	3,00		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	100 x 50 x 5mm Thick clear perspex plate with red background and two white 20mm high reverse engraved and painted letters or numerals	No	26,00		
	160 x 160 x 0.9mm stainless steel plate with fire exit, fire extinguisher, fire hose reel or fire hydrant symbol	No	16,00		
	160 x 160 x 0.9mm stainless steel plate with arrow symbol	No	14		
	<b><u>PHOTOLUMINESCENT SIGNS</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	Signs are to comply with SANS 1186-1 to 5 and to be to the approval of the local authority. Signs are to have anodised aluminium frames.				
	Prices are to include for fixing by approved methods. The use of double sided tape will not be permitted. Surface mounted signs are to be concealed fixed and ceiling mounted signs are to be hung with 2mm diameter stainless steel cables.				
	Single sided ceiling mounted signs are to have 2mm satin chrome anodised aluminium back panels.				
	Samples, specifications, literature, etc of materials and fabricated articles the tenderer proposes to use shall be submitted with the tender.				
	A ten year guarantee on materials and workmanship shall be submitted by the successful tenderer.				
	References at the end of the item descriptions are to the relative items on drawings annexed to these bills of quantities.				
	<b><u>Wall mounted photoluminescent statutory signs in 190 x 190mm modules</u></b>				
	570 x 190mm signs with three pictograms (Type F4)	No	4,00		
	380 x 190mm sign with three pictograms (Type F13)	No	4,00		
	<b><u>PELMETS AND CURTAIN TRACKS</u></b>				
	0.5mm Mild steel powder-coated single curtain tracks for face fixing with 100mm projection including 12 rollers per metre, stops, brackets, etc plugged	m	109,00		
	0.5mm Mild steel powder-coated double curtain tracks for face fixing with 100mm projection including 12 rollers per metre, stops, brackets, etc pluggers	m	109,00		
<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No. 9 - Ironmongery</b>					
<b><u>SECTION NO. 2 -BUILDING WORKS</u></b>					
<b><u>SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE - BILL NO. 10</u></b>					
<b><u>STRUCTURAL STEELWORK</u></b>					
NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill					
NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices					
<b><u>SUPPLEMENTARY PREAMBLES</u></b>					





**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>Purlins bolted to steel</b>				
	100 x 100 x 8 x 12.2kg/m lipped channel-section purlins	t	0,75		
	<b>Welded bracing, etc. with flat section connection plates bolted to steel</b>				
	150 x 150 x 10mm Rectangular Hollow Section	t	0,75		
	Allowance for connection plates, base plates, angle-sections and bolts	t	0,26		
	Allowance for structural roof construction	m2	648		
	Extra over staircase	m2	31		
	Allowance for paint	t	17,51		
	Allow contingency @ 1.5%	Item			
	<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.10 - Structural Steelwork</b>				
	<b><u>SECTION NO. 2 - BUILDING WORKS</u></b>				
	<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 11</u></b>				
	<b><u>METALWORK</u></b>				
	Descriptions and preambles in other trades and bills in other sections of the works. If necessary, reference shall be made to other trades and preambles in other sections of the works for full preambles and full descriptions of items which might not be fully described in this bill, but which shall apply equally to the works in this bill, unless otherwise described.				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	NOTE: Tenderers are advised to study the drawings and specification schedules provided by the architect before pricing this bill				
	NOTE: Tenderers are advised that the design, supply and installation of the aluminium windows, doors & shopfronts are to be carried out in strict accordance with the Architect's specification and all aluminium profiles, manufacturing and fixing methods are to comply with AAAMSA Specifications and Installation Standards				
	NOTE: Tenderers are advised that all aluminium profiles and glazing to comply with SABS standards and Municipal Regulations				
	NOTE: Tenderers are to provide shop drawings for approval by the Architect within two weeks of acceptance of tender				
	NOTE: Aluminium profiles and colour samples must be approved by Architect prior to manufacturing				
	NOTE: The Tenderer to allow for / calculate tolerances for expansion and contraction of aluminium				
	NOTE: Tenderers to confirm all window and shopfront sizes with architect.				
	NOTE: All dimensions to be checked on site by manufacturer before manufacturing commences. Any variations must be approved by the Architect.				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	<b>Aluminium doors, windows, shopfronts, etc</b>				
	Doors and windows shall comply with AAAMSA design criteria				
	The following certificates shall be provided prior to commencement of site work:				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product</p> <p>2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively</p> <p>3 A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process</p> <p>4 A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked</p> <p>5 A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against de-lamination and colour degradation for a period of not less than five years</p> <p><b>Finishes</b></p> <p>Final product shall be free from all sharp edges</p> <p><b>Ironmongery</b></p> <p>Hinges for the glass doors and acoustic door seals for all glass doors &amp; timber doors in this package to be supplied and installed by the contractor. All ironmongery shall be approved by the Architect prior to installation. Contractor to supply all relevant shopfronts with catches, hinges etc. to match shopfronts and doors, all to the Architect's approval</p> <p><b>Joints and Sealants</b></p> <p>All joints in frames shall be made by mechanical means. An approved silicone sealant is to be provided for both sides of all internal and external shopfronts between the aluminium frames and brick wall, drywall or concrete column and between the aluminium frame and plaster finish</p> <p><b>Protection</b></p> <p>The contractor to ensure that allowances are made for sufficient protection against damage, etc as required</p> <p><b>Glass</b></p> <p>All glass shall comply with SANS 50572-1&amp;2:1994, SANS 1263-1:2013 and SANS 10137. In particular, all safety glass shall be marked in accordance with the requirements of SANS 1263 and AAAMSA. All toughened glass shall be heat soak tested (after toughening) in accordance with DIN 18516:Part 4. All laminated safety glass to be suitably polished on a straight line polishing machine.</p> <p><b>ACOUSTIC TEST PERFORMANCE REQUIREMENTS</b></p> <p>Shopfronting systems must achieve an acoustic rating of minimum Rw 33 dB and Rw 38 dB, tested in accordance with SANS ISO 140-3 and SANS ISO 717-1. The system test result is to include the door, glazing and framing systems. Site testing declared in R'w or DnT,w to SANS 140-4 or ISO 16283-1 may be supplied if laboratory test data is not available provided the following is provided for each tested system: - Source room volume in m3 - Receiving room volume in m3 - Surface area of tested element in m2 - Reverberation time in the receiving room in third octave bands - Clear description of the system (glazing, profile, door, etc.) tested - If available, a photograph or drawing of the system as installed and tested.</p> <p><b>TESTING FOR WATER-TIGHTNESS</b></p> <p>The windows shall be glazed and prepared so that each window can be tested for water-tightness with water sprayed on by means of a 20mm hosepipe using adequate pressure. If the pressure proves to be inadequate, in the opinion of the principal agent, then the pressure in the hosepipe shall be boosted by means of compressed air, or other approved means. Each window section shall be tested under the supervision of the principal agent and approved before final acceptance of the fenestration.</p> <p><b>PRESSED MILD STEEL DOOR FRAMES</b></p> <p><b>1.2mm Thick once rebated frames suitable for 115mm thick walls and doors in the following sizes</b></p> <p>D01- Door size overall 769 x 2390mm high</p>				
		No	25		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	D01- Door size overall 887 x 2390mm high	No	3		
	D02- Door size overall 813 x 2390mm high	No	25		
	D03 -Door size overall 1500 x 2390mm high	No	1		
	D04 -Door size overall 877x 2390mm high	No	7		
	D05 -Door size overall 1200 x 2390mm high	No	3		
	<b>1.2mm Thick once rebated frames suitable for 230mm thick walls and doors in the following sizes.</b>				
	D01- Door size overall 885x 2390mm high	No	9		
	D04 -Door size overall 4000 x 2032mm high	No	2		
	D06 -Door size overall 1677 x 2390mm high	No	5		
	<b><u>ALUMINIUM</u></b>				
	<b><u>ALUMINIUM WINDOWS, DOORS, ETC.</u></b>				
	<b><u>ALUMINIUM SHOPFRONTS</u></b>				
	<b>Purpose made powder coated aluminium shopfronts (colour: black) with and including 6.38mm laminated safety glass strictly according to SANS 10400 - Part N with matching glazing beads friction stays with and including the installation of ironmongery (supplied by others) as per architect's specifications plugged to brickwork/concrete/partitions including polyurthane elastometric uv-resistant flexible joint sealant suitable for painting, aluminium/rubber gaskets, all designed in accordance with architects drawings and specifications, supplied and installed by specialist contractor</b>				
	Shopfront size overall 4 000 x 5695mm high	No	2		
	Extra over door size overall 1 960 x 2400m high	No	2		
	Shopfront size overall 5 377 x 2 465m high with 1 No.	No	1		
	Extra over overall double door size 1475 x 2390mm highhigh	No	1		
	Shopfront size overall 5 906 x 3 910m high	No	1		
	Shower doors of size 1500 x 1500	No	3		
	<b>Purpose made powder coated aluminium window (colour: black) with and including 6.38mm laminated safety glass strictly according to SANS 10400 - Part N with matching glazing beads friction stays with and including the installation of ironmongery (supplied by others) as per architect's specifications plugged to brickwork/concrete/partitions including polyurthane elastometric uv-resistant flexible joint sealant suitable for painting, aluminium/rubber gaskets, all designed in accordance with architects drawings and specifications, supplied and installed by specialist contractor</b>				
	Window size overall 400 x 2465mm high (W1)	No	8		
	Window size overall 595 x 2465mm high (W1)	No	4		
	Window size overall 600 x 900mm high (W1)	No	12		
	Window size overall 892 x 2465mm high (W2)	No	5		
	Window size overall 900 x 2 105mm high (W1)	No	2		
	Window size overall 1 200 x 2 465mm high (W2)	No	2		
	Window size overall 1 784 x 2 465mm high	No	8		
	Window size overall 1 800 x 2 465mm high (W2)	No	4		

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Window size overall 2 356 x 600mm high (W2)	No	2		
	Window size overall 2 400 x 600mm high (W2)	No	4		
	<b><u>STEEL ROLLER SHUTTERS ETC</u></b>				
	<b>55mm Solid shutter slat style power coated purpose made commercial aluminium motorised trellidor rollers shutter, motor option to include battery back-up and obstacle sensor, including frame, flashings and Ironmongery fixed to brickwork, block wall or concrete</b>				
	Motorised 4 000 x 2 700mm high roller shutter door	No	4		
	<b>BUDGETARY ALLOWANCE</b>				
	Allow a Budgetary amount for a Catladder complete	Item	1		
	<b>MILD STEEL BALUSTRADE, HANDRAILS, ETC</b>	<b>H2</b>			
	<b>1050mm high stainless steel balustrades with 100mm c/c horizontal rails complete with sections</b>	<b>H4</b>			
	50x1100mm thick steel sections	m	98		
	Steel handrail	m	75		
<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.11 - Metalwork</b>					
<b><u>SECTION NO. 2 - BUILDING WORKS</u></b>					
<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 12</u></b>					
<b><u>PLASTERING</u></b>					
NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill					
NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices					
<b><u>SUPPLEMENTARY PREAMBLES</u></b>					
Concrete shall have the strengths specified on the drawings. Mix proportions for mortar and plaster must be in accordance with the aforementioned specifications and the National Building Regulations.					
Mixing, placing, compaction, surface finishing and curing shall be in accordance with the aforementioned codes, unless otherwise indicated on the drawings, or stated hereafter.					
Specified curing methods, procedures and time periods must be strictly imposed for all cement based mixes and shrinkage cracking will not be accepted.					
Stone for granolithic shall be 6mm washed granitic stone with a low flakiness index. Sand for the granolithic shall be well-graded coarse river sand. A sample of the proposed granolithic mix must be provided by the contractor. Written approval by the principal agent must be obtained in respect of the appearance and the proposed mix design before commencing such work.					
Granolithic					
Method					
The method to be used shall be either the "monolithic method", or the "bonded method".					
Preparation					

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**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>For granolithic applied "monolithically", the concrete substrate shall be swept clean after bleeding of the concrete has ceased and the concrete has begun to stiffen. All remaining "bleed water" shall be removed and the granolithic applied immediately thereafter.</p> <p>For granolithic to be "bonded" to the concrete substrate after it has hardened, the concrete shall be hacked (preferably by mechanical means) until all laitence, dirt, oil, etc., is dislodged and swept clean of all loose matter. The concrete shall then be wetted and kept damp for at least six hours before applying the granolithic.</p> <p>Mix</p> <p>Granolithic shall attain a compressive strength of at least 40Mpa. The coarse aggregate ingredients shall comply with SANS 1083 and shall generally be capable of passing a 5mm 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>Panels</p> <p>Granolithic shall be laid in panels not exceeding 14m<sup>2</sup> for "monolithic" internal finishes, not exceeding 9m<sup>2</sup> for "bonded" internal finishes, and not exceeding 6m<sup>2</sup> for all external finishes. Wherever possible, panels shall be square, but, if rectangular, the length of the panel should not exceed 1.5-times its width.</p> <p>Where possible, joints between panels shall be positioned over joints in the substrate 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>Laying</p> <p>"Monolithic" granolithic shall be applied to the partially-set concrete substrate and be thoroughly compacted and lightly wood-floated to the required level.</p> <p>"Bonded" granolithic shall be applied to the concrete substrate after a 1:1 sand-and-cement slurry has been brushed over the surface and allowed to partially set. The granolithic shall be thoroughly compacted and lightly wood-floated to the required level.</p> <p>After wood-floating, the "monolithic" and "bonded" granolithic shall remain undisturbed until "bleeding" has ceased and its surface has stiffened. All remaining "bleed" water and laitence shall then be removed and the surface shall be steel-trowelled.</p> <p>Curing, seasoning and protection</p> <p>Granolithic shall be suitably covered and kept wet for at least seven days after laying.</p>				
	<b><u>INTERNAL SCREEDS</u></b>				
	<b>Cement mortar screeds wood floated for tiles, on concrete</b>				
	50mm Thick on internal floors and landings.	m <sup>2</sup>	1242		
	<b>Cement plaster rendering coat with gypsum skim plaster finishing coat, on concrete</b>				
	Concrete soffits	m <sup>2</sup>	730,0		
	<b><u>EXTERNAL SCREEDS</u></b>				
	<b>Cement mortar screeds wood floated for waterproofing, on concrete</b>				
	25mm Thick to falls on roofs.	m <sup>2</sup>	415		
	<b><u>INTERNAL PLASTER</u></b>				
	<b>Cement plaster steel trowelled, on brickwork to receive paint or wall paper</b>				
	On walls.	m <sup>2</sup>	5898		
	On narrow widths.	m <sup>2</sup>	1474		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Concrete soffits, including sides of beams	m <sup>2</sup>	109		
	<b>Cement plaster steel trowelled, on brickwork to receive tiles</b>				
	On walls.	m <sup>2</sup>	1232		
	On narrow widths.	m <sup>2</sup>	221		
	<b><u>EXTERNAL PLASTER</u></b>				
	<b>Cement plaster /backwash steel trowelled, on brickwork to receive paint or wall paper</b>				
	On walls.	m <sup>2</sup>	363		
	On narrow widths.	m <sup>2</sup>	91		
	<b><u>CORNER PROTECTORS, DIVIDING STRIPS, EXPANSION JOINT COVERS, ETC.</u></b>				
	<b>Natural anodised aluminium</b>				
	TR-03 -27 x 25 x 2100mm high "natural anodised" aluminium corner protector (Code ACP250)	m	259		
	<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.12 - Plastering</b>				
	<b><u>SECTION NO. 2 - BUILDING WORKS</u></b>				
	<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 13</u></b>				
	<b><u>TILING</u></b>				
	Descriptions and preambles in other trades and bills in other sections of the works. If necessary, reference shall be made to other trades and preambles in other sections of the works for full preambles and full descriptions of items which might not be fully described in this bill, but which shall apply equally to the works in this bill, unless otherwise described.				
	NOTE: Tenderers are advised to study the General Preambles for Trades before pricing this Bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to be a fixed price for the duration of this project -----				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	<b>Patterns</b>				
	Unless otherwise described, tiles shall be laid with continuous joints in both directions				
	<b>Fixing</b>				
	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				
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat				
	Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts from the "Tal Professional" range of products as recommended by the manufacturer of the tiles				
	<b><u>WALL TILING</u></b>				
	<b>300 x 300mm non-slip porcelain tiles (PC 350/m2) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted grout</b>				
	On walls	m <sup>2</sup>	894		
	On narrow widths not exceeding 300mm	m <sup>2</sup>	29		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Fair exposed cutting and fitting around pipe not exceeding 100mm external diameter	No	20		
	Fair exposed cutting and fitting around pipe exceeding 100mm and not exceeding 150mm external diameter	No	20		
	<b><u>FLOOR TILING</u></b>				
	<b>600 x 600mm "Montclair Blanco" porcelain floor tiles (PC R449/m2) fixed with adhesive to wood floated concrete and flush pointed with tinted grout, including soft joints</b>				
	On floors and landings	m <sup>2</sup>	1293		
	Circular cutting	m	231		
	1200mm wide of tiles laid in irregular pattern	m <sup>2</sup>	65		
	Skirting 100mm high of cut tiles, including 6mm wide polysulphate joint	m	519		
	<b><u>CORNER PROTECTORS AND EXPANSION JOINTS</u></b>				
	M-trim (code ASQE 100), or equal approved, brushed stainless steel square edge-trim.	m	519		
	8mm Wide expansion joint in floor tiling, including fair straight arises on tiling, cutting through the thickness of the backing, raking out, priming, backing cord and silicone pointing.	m	161		
<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.13 - Tiling</b>					
	<b><u>SECTION NO. 2 - BUILDING WORKS</u></b>				
	<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 14</u></b>				
	<b><u>PLUMBING AND DRAINAGE</u></b>				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	"Polycop" polypropylene pipes:				
	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				
	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 instructions				
	All pipe diameters are nominal external				
	"Polylink" polypropylene pipes:				
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints				
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured				
	Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers				
	Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same</p> <p>All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>uPVC pipes and fittings:</u></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>Pipes for water supply shall be of the class stated</p> <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>Copper pipes:</u></p> <p>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</p> <p><u>Fixing of pipes</u></p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</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 steelbasins, 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><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><b><u>SANITARY FITTINGS</u></b></p> <p>Front flush close coupled WC colour White, 100mm outlet with cistern connected to 15mm water supply with foot of bowl sealed to floor with acetoxo silicone sealant.</p> <p>50cm urinal colour White, with back or top inlet and waste outlet including wall mounting brackets and connected to water supply, sealed with silicone sealant where urinal meets wall.</p> <p>1. 12mm compact high pressure laminate urinal screen colour Pastel Grey, overall size 450 x 750mm fixed to wall with 304 grade stainless steel brackets.</p>				
		No	25		
		No	6		
		No	3		



**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Electric hand dryer. High-grade stainless-steel satin finish. Dimensions: 220 (H) x 248 (W) x 110 (D).	No	10		
	800ml High-grade stainless-steel satin finish lockable wall mounted soap dispenser. Dimensions: 290 (H) x 100(W) x 100(D)	No	9		
	Dog Leg grab rail colour Silver fixed to walls with fixation bolts.	No	4		
	High-grade stainless-steel satin finish lockable toilet roll holder with permanent plastic trim. Dimensions: 355 (H) x 125 (W) x 130 (D).	No	18		
	50cm basin with semi pedestal colour White, fixed with stainless steel screws and washers to plugs in wall and sealed with acetoxysilicone sealant where basin meets wall.	No	8		
	Washbowl colour White, overall size 475 x 475 x 120mm, fixed to countertop and sealed with acetoxysilicone sealant where basin rim meets countertop, installation kit included.	No	20		
	Deck mounted basin mixer, overall size 136.93 x 43.38 x 123.74mm, installed in accordance with the manufacturer's recommendations.	No	9		
	Superior grade 304 stainless steel available in satin or bright annealed finish paper towel dispenser. Lockable unit fitted with tumbler locking system. Dimensions: 369(H) x 280(W) x 120(D).	No	4		
	Vaal Pear Paraplegic semi close couple 90" outlet open with rim washdown pan and matching	No	3		
	Vaal Pear Paraplegic semi close couple 90" outlet open with rim washdown pan and matching				
	Vaal Pear Paraplegic semi close couple 90" outlet open with rim washdown pan and matching				
	<b>Railman grab rails (Ref:SR2) and dogleg rail with 2 flanges( Ref:DL2).</b>				
	All grab bars shall be constructed of 304 high quality stainless steel or other suitable non-corrosive metal tube with an outside diameter of 32mm, that can be easily cleaned . the correct back grab bar must be selected for the external cisterns, flush valve system or under wall cisterns. the back and side grab-rail may be an integral unit. the cranked grab bar must be installed in the correct orientation as shown on the respectable elevation. grab bars must be fixed to the wall such that they can support a vertical force of 1kilo newton at any point on the grab bar.	No	4		
	Isolating ball valves - 1/2 inch fullway isolating ball valve suitable for hot and cold water (code 1090-15) cobra or equal for basin isolation	No	20		
	Isolating ball valves - 1/2 inch fullway isolating ball valve suitable for urinal and wc isolation (code 1090-20) cobra or equal positioned in plumbing duct	No	12		
	Stainless Steel sensor paper towel dispenser elegant brushed stainless steel controlled feeding Hands free operation	No	8		
	Sanitary bin for female ablutions - Stainless Steel sanitary bin plugged and screw to wall with stainless steel screws.	No	8		
	Raised paraplegic CC WC with side lever and grab rails combo colour White 100mm outlet with cistern connected to 15mm water supply with foot of bowl sealed to floor with acetoxysilicone sealant.	No	4		
	Franke model LDS drip sink 600x500x258mm deep manufactured from Grade 304 (18/10) stainless steel 0,9mm thick and with a 40mm waste outlet.	No	4		
	<b><u>SEWER SYSTEM</u></b>				
	<b><u>Main Sewer Line - underground</u></b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<u>Pipe to be UPVC Class 34 (Marley or equal)</u>				
	<u>Pipe to be bedded in accordance with SANS 1200LB and SANS 1200 LD</u>				
	160 mm Ø piping	m	170		
	50 mm Ø piping	m	85		
	<u>Extra Over for Fittings</u>				
	110 mm Ø 45° bends	No	4		
	110 mm Ø Y-Junction UYAR42 Ribbed L/S Junction	No	4		
	110 mm Ø 22,5° bends	No	4		
	160 mm Ø 22,5° bends	No	4		
	110 mm Ø UAP43 Rodding Eye c/w thrust block	No	3		
	Brick Manholes constructed in line with SABS 1200LB and SABS 1200 LD c/w step irons, benched to detail, manhole overs and concrete covers	No	4		
	<u>Main Sewer Line - above ground</u>				
	<u>Pipe to be UPVC Class 9 in accordance with SANS 10252 Part</u>				
	160 mm Ø piping	m	170		
	<u>RAINWATER DISPOSAL</u>				
	<u>0,6mm Galvanised sheet iron with "Chromadek" finish on one side</u>				
	100 x 125mm Eaves gutters with beaded front edge	m	33		
	Extra over eaves gutter for angle	No	33		
	Extra over eaves gutter for stopped end	No	8		
	Extra over eaves gutter for outlet for 100mm diameter pipe	No	33		
	100mm Diameter rainwater pipes	m	51		
	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	51		
	<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.14 - Plumbing and Drainage</b>				
	<b><u>SECTION NO. 2- BUILDING WORKS</u></b>				
	<b><u>SKILLS DEVELOPMENT CENTRE - BILL NO. 15</u></b>				
	<b>BILL NO. 15.0</b>	<b>H1</b>			
	<b><u>ELECTRICAL WORK</u></b>	<b>H1</b>			
	NOTE: Tenderers are required to study the Model Preambles for Trades and the Project Specification before pricing the bills of quantities. -----				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>LOW VOLTAGE DISTRIBUTION</b>				
	<b>Distribution Boards</b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p><i>Electrical distribution switchboards as specified and as per the single line diagrams complete with pad lockable doors, frames, sub-frames, chassis, fixtures, fittings, with spare space, including all switching equipment.</i></p> <p>(a) DB - Main Weather proof - as per SLD to be issued</p> <p>(d) DB Plinth</p> <p>(e) Administer Municipal connection of 100 KVA</p> <p><b>Circuit Breakers</b> <i>Circuit breakers to be Schneider, ABB, CBI or Hager</i></p> <p>(a) new 200A CB 25KA, inside minisub</p> <p><b>Low Voltage Cables From Main DB's to Shops</b> <i>600/1000V grade stranded conductor cables installed on cable trays, in sleeves or trenching. Trenching, sleeves and wire ways are measured elsewhere. Terminations of conductors are also measured elsewhere.</i></p> <p>2x 95mm<sup>2</sup> PVC/SWA/PVC/PVC 4 Core CU- Transformer to the main Kiosk</p> <p><b>Low Voltage Cable Terminations</b> <i>Cable terminations complete glands, shrouds, lugs, connections and commissioning.</i></p> <p>95mm<sup>2</sup> PVC/SWA/PVC/PVC 4 Core CU</p> <p><b>Bare Stranded Copper Earth Wire</b> <i>Bare stranded copper earth wire strapped to cables, terminations are measured elsewhere.</i></p> <p>50mm<sup>2</sup> CU</p> <p><b>Bare Stranded Copper Earth Wire Terminations</b> <i>Stranded copper earth wire terminations for insulated/bare conductor complete, including drilling, bolting, lugs, connections and terminating.</i></p> <p>50mm<sup>2</sup> CU</p> <p><b>Cable Markers</b> <i>Provide and install danger tape. 300mm above the cable</i></p> <p>(a) Cable markers- To be installed above cables in trenches</p> <p><b>Cable Trenches</b> Excavate for cable and sleeve trench including temporary support of sides, keeping excavations dry, backfilling and compacting to the engineers specification including bedding under and filling around cable comprising sifted sand</p> <p>(a) Soil- New Trenches to and from Mini-sub to main kiosk</p> <p>(b) Soil- New Trenches to and from Main kiosk to generator and back to main kiosk</p> <p>(c) Hard Rock - New Trenches to and from Mini-sub, generator, and new DB</p> <p><b>Testing and Commissioning</b> (a) Testing and commissioning of complete LV system</p>	each each each  each  meters  each  meters  each  m  m <sup>3</sup> m <sup>3</sup> m <sup>3</sup>  Lot	1 1 1  1  200  8  200  8  200  90 90 50  1		
<b>Subtotal - Bill No.15.0 - Skills Development Centre 15.0 - Reticulation</b>					
	<b><u>SKILLS DEVELOPMENT CENTRE</u></b>	<b>H1</b>			
	<b>BILL NO. 15.1 - ADMINISTRATION BLOCK</b>	<b>H1</b>			
	<b>LOW VOLTAGE DISTRIBUTION</b>	<b>H1</b>			
	<p><b>Distribution Boards</b> <i>Electrical distribution switchboards as specified and as per the single line diagrams complete with pad lockable doors, frames, sub-frames, chassis, fixtures, fittings, with spare space, including all switching equipment.</i></p> <p>(a) DB Main (DB - A1)</p> <p><b>Low Voltage Cables From Main Supply to DB Main (DB - A1)</b> <i>600/1000V grade stranded conductor cables installed on cable trays, in sleeves or trenching. Trenching, sleeves and wire ways are measured elsewhere. Terminations of conductors are also measured elsewhere.</i></p> <p>70mm<sup>2</sup> PVC/SWA/PVC/PVC 4 Core CU-175A CB</p> <p><b>Low Voltage Cable Terminations</b> <i>Cable terminations complete glands, shrouds, lugs, connections and commissioning.</i></p> <p>70mm<sup>2</sup> PVC/SWA/PVC/PVC 4 Core CU</p> <p><b>Low Voltage Cable Joints</b> <i>Cable terminations complete glands, shrouds, lugs, connections and commissioning.</i></p>	each  meters  Each	1  150  8		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

ITEM NO	BILL				
		UNIT	QUANTITY	RATE	AMOUNT
	70mm <sup>2</sup> PVC/SWA/PVC/PVC 4 Core CU	Each	2		
	<b>Bare Stranded Copper Earth Wire</b> <i>Bare stranded copper earth wire strapped to cables, terminations are measured elsewhere.</i>				
	35mm <sup>2</sup> CU	meters	150		
	<b>Bare Stranded Copper Earth Wire Terminations</b> <i>Stranded copper earth wire terminations for insulated/bare conductor complete, including drilling, bolting, lugs, connections and terminating.</i>				
	35mm <sup>2</sup> CU	Each	2		
	<b>Subtotal - Bill No.15.1 - Skills Development Centre 15.1 - Low Voltage distribution</b>				
	<b>BILL NO.15.2</b>	H1			
	<b>LIGHTING INSTALLATION</b>	H1			
	<b>WIREWAYS</b>				
	Supply and Install Trunking				
	(a) Supply and install P8000 trunking suspended from slab and trusses in ceiling void.	Meter	150		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.				
	(a) 20mm diameter	Meter	300		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted				
	(a) 100 x 50 x 50 mm, c/w applicable cover	No	26		
	(b) 65mm round box, c/w cover	No	120		
	<b>ACCESSORIES</b>				
	Supply, deliver and install accessories to boxes				
	(a) 5A, 3-pin socket outlets to trunking	No	67		
	(b) 16A, one lever one way switch	No	17		
	(c) 16A, one lever two way switch	No	5		
	(d) 16A, two lever one way switch	No	2		
	1,5mm <sup>2</sup> bare copper earth wire	Meter	1 500		
	2.5mm <sup>2</sup> PVC insulated conductor	Meter	300		
	<b>LIGHT FITTINGS</b>				
	<b>Internal Lights</b>				
	Supply, deliver, install, connect, test and commissioning the following light fittings				
	TYPE D1 - 230V, Luxon Round Pro 160 Down lighter Recessed light fitting installed with 20W LED and 4000K CRI 80 250mA Non-dimmable controller	No	26		
	TYPE C1 – 230V,103mm diameter ceiling recessed, Die cast aluminium body light fitting with white acrylic lens installed with 8W LED lamps, warm white.	No	55		
	1TYPE F10 – 600X1200mm ceiling recessed luxon prism backlit panel light fitting with seamless aluminium extruded frame and prismatic diffuser installed with 35W LEDs.	No	57		
	TYPE D3 - Regent 230V, Luxon Round Pro 160 Down lighter Recessed light fitting installed with 15W LED and 4000K CRI 80 250mA Non-dimmable controller.	No	26		
	TYPE W2 - tower pedant led light fitting with extruded powder coated aluminium body and UV stabilized satin acrylic diffuser, installed with 35W LEDs	No	8		
	<b>External Lights</b>				
	TYPE W2 - Wall mounted bulkhead light fitting with die-cast aluminium body and glass lens fitted with 1x60w lamp or SIMMILAR APPROVED	No	18		
	<b>Subtotal - Bill No.15.2 - Skills Development Centre 15.2 - Lighting Installation</b>				
	<b>BILL NO.15.3</b>	<b>H1</b>			

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>SMALL POWER INSTALATION</b>	<b>H1</b>			
	<b>WIREWAYS</b>				
	<i>Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.</i>				
	20mm diameter	Meter	300		
	<i>Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover</i>				
	100 x 100 x 50 mm	No	67		
	<i>Supply, deliver and installation of the 2 compartment, two cover Midland power skirting complete with all accessories including internal/external bends, end caps etc.</i>				
	as per first and ground floor drawings	Meter	210		
	Supply and installation of power skirting accessories				
	Blank cover plate suitable for RJ 11 telephone outlet	No	4		
	Blank cover plate suitable for RJ 49 data outlet	No	40		
	<i>Supply, delivery and installation of socket outlets</i>				
	16 A, 3-pin standard white SSO + 16 A, 3-pin Euro Scket (SANS 164-2)				
	Flush Mounted	No			
	Power skirting mounted	No	55		
	16 A, 3-pin double white SSO + 16 A, 3-pin Euro Scket (SANS 164-2)				
	Flush Mounted	No	25		
	16 A, 3-pin dedicated red SSO				
	Flush Mounted	No			
	Power skirting mounted	No	17		
	<b>HVAC POWER</b>				
	20A double isolators	No	35		
	25A triple pole	No	3		
	<b>WIRING AND TERMINALS</b>				
	Supply, Deliver and installation of Cu Conductors:				
	2.5mm <sup>2</sup> PVC insulated conductor				
	Supply and delivery	Meter	1 500		
	Installation	Meter	1 500		
	4mm <sup>2</sup> PVC insulated conductor				
	Supply, delivery and installation	Meter	900		
	4mm <sup>2</sup> 4 core Surfex (For HVAC)				
	Supply, delivery and installation	Meter	300		
	Installation				
	25mm <sup>2</sup> 4 core PVC SWA PVC Cacle (For HVAC)				
	Supply and delivery	Meter	90		
	Installation	Meter	90		
	<b>Subtotal - Bill No.15.3 - Skills Development Centre 15.3 - Small Power Installation</b>				
	<b>BILL NO.15.4</b>	<b>H1</b>			
	<b>ELECTRONICS &amp; SECURITY SYSTEM</b>				
	<b>WIREWAYS</b>				
	<i>Supply, delivery and installation of PVC conduit, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.</i>				
	32mm diameter	Meter	90		
	25mm diameter	Meter	90		
	<i>Supply, installation and delivery of P2000 trunking in ceiling void</i>				
	Supply, delivery and Installation	Meter	80		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

ITEM NO	BILL				
		UNIT	QUANTITY	RATE	AMOUNT
	Supply, delivery and installation of Conduit outlets boxes				
	50mm Round box	No	15		
	100 x 100 x 50 mm	No	15		
	<b>CCTV SYSTEM</b>				
	Supply, Deliver, test, install and commission of CCTV system c/w system softwares and accessories as per drawings and tender specification				
	Supply and Deliver	Sum	1		
	Installation	Sum	1		
	<b>FIRE DETECTION SYSTEM</b>				
	Supply, Deliver, test, install and commission fire detection system as per drawings and tender specification				
	Supply and Deliver	Sum	1		
	Installation	Sum	1		
	<b>Subtotal - Bill No. 15.4 - Electronics &amp; Security system</b>				
	<b>Subtotal - Bill No.15.4 - Skills Development Centre 15.4 - Skills Development Centre - Administration Block - Electrical works</b>				
	<b>SKILLS DEVELOPMENT CENTRE</b>	<b>H1</b>			
	<b>BILL NO.15.5 - WORKSHOPS</b>	<b>H1</b>			
	<b>LOW VOLTAGE DISTRIBUTION</b>	<b>H1</b>			
	<b>Distribution Boards</b>				
	Electrical distribution switchboards as specified and as per the single line diagrams complete with pad lockable doors, frames, sub-frames, chassis, fixtures, fittings, with spare space, including all switching equipment.				
	(a) Sub DB (DB - A1)	each	1		
	(b) Sub DB (DB - A2)	each	1		
	(c) Sub DB (DB - A3)	each	1		
	<b>Low Voltage Cables From Main DB to Sub DB</b>				
	600/1000V grade stranded conductor cables installed on cable trays, in sleeves or trenching. Trenching, sleeves and wire ways are measured elsewhere. Terminations of conductors are also measured elsewhere.				
	35mm2 PVC/SWA/PVC/PVC 4 Core CU-175A CB	meters	80		
	<b>Low Voltage Cable Terminations</b>				
	Cable terminations complete glands, shrouds, lugs, connections and commissioning.				
	35mm2 PVC/SWA/PVC/PVC 4 Core CU	Each	8		
	<b>Low Voltage Cable Joints</b>				
	Cable terminations complete glands, shrouds, lugs, connections and commissioning.				
	35mm2 PVC/SWA/PVC/PVC 4 Core CU	Each	2		
	<b>Bare Stranded Copper Earth Wire</b>				
	Bare stranded copper earth wire strapped to cables, terminations are measured elsewhere.				
	25mm2 CU	meters	150		
	<b>Bare Stranded Copper Earth Wire Terminations</b>				
	Stranded copper earth wire terminations for insulated/bare conductor complete, including drilling, bolting, lugs, connections and terminating.				
	25mm2 CU	Each	2		
	<b>Subtotal - Bill No.15.5 - Skills Development Centre 15.5 - Low Voltage Distribution</b>				
	<b>BILL NO.15.6</b>	<b>H1</b>			
	<b>LIGHTING INSTALLATION</b>	<b>H1</b>			
	<b>WIREWAYS</b>				
	Supply and Install Trunking				
	(a) Supply and install P8000 trunking suspended from slab and trusses in ceiling void.	Meter	400		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p><i>Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.</i></p> <p>(a) 20mm diameter</p>	Meter	300		
	<p><i>Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted</i></p> <p>(a) 100 x 50 x 50 mm, c/w applicable cover</p> <p>(b) 65mm round box, c/w cover</p>	No No	3 120		
	<b>ACCESSORIES</b>				
	<p><i>Supply, deliver and install accessories to boxes</i></p> <p>(a) 5A, 3-pin socket outlets to trunking</p> <p>(b) 16A, one lever one way switch</p> <p>(c) 16A, one lever two way switch</p>	No No No	65 12		
	<b>WIRING AND TERMINALS</b>				
	<p><i>Supply, delivery and installation of Cu Conductors:</i></p> <p>1,5mm<sup>2</sup> PVC insulated conductor</p> <p>1,5mm<sup>2</sup> bare copper earth wire</p> <p>2.5mm<sup>2</sup> PVC insulated conductor</p>	Meter Meter Meter	3 000 1 500 300		
	<b>LIGHT FITTINGS</b>				
	<p><i>Supply, deliver, install, connect, test and commissioning the following light fittings</i></p> <p>TYPE F30 - 230V, Lugo light fitting with LM6 die cast aluminium end cap and extruded aluminium body, Polycarbonate. High impact resistant, high durability, heat and electrical resistance and recyclable diffuser installed with 64W LEDs. IP65 rated or <b>SIMMILAR APPROVED</b></p>	No	128		
	<p>TYPE C1 – 230V, 103mm diameter ceiling recessed, Die cast aluminium body light fitting with white acrylic lens installed with 8W LED lamps, warm white.</p>	No	30		
<b>Subtotal - Bill No.15.6 - Skills Development Centre 15.6 - Lighting Installation</b>					
	<b>BILL NO. 15.7</b>	<b>H1</b>			
	<b>SMALL POWER INSTALATION</b>	<b>H1</b>			
	<b>WIREWAYS</b>				
	<p><i>Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.</i></p> <p>20mm diameter</p>	Meter	600		
	<p>Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia &amp; 2 x 20mm dia from wire basket &amp; trunking in ceiling void to power skirting c/w 1.6mm draw wires</p>	No	10		
	<p><i>Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover</i></p> <p>100 x 100 x 50 mm</p>	No	20		
	<p><i>Supply, deliver and installation of the 2 compartment, two cover Midland power skirting complete with all accessories including internal/external bends, end caps etc.</i></p> <p>as per first and ground floor drawings</p>	Meter	120		
	<p><i>Supply and install P8000 trunking suspended from slab and trusses in ceiling void.</i></p> <p>Supply, delivery and installation</p>	Meter	90		
	<p>Supply and installation of power skirting accessories</p> <p>Blank cover plate suitable for RJ 11 telephone outlet</p> <p>Blank cover plate suitable for RJ 49 data outlet</p>	No No	3 6		
	<p><i>Supply, delivery and installation of socket outlets</i></p> <p>16 A, 3-pin standard white SSO + 16 A, 3-pin Euro Scket (SANS 164-2)</p> <p>Flush Mounted</p> <p>Power skirting mounted</p>	No No	12 32		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	16 A, 3-pin double white SSO + 16 A, 3-pin Euro Scket (SANS 164-2) Flush Mounted	No	12		
	16 A, 3-pin dedicated red SSO Flush Mounted Power skirting mounted	No No	6		
	<b>WIRING AND TERMINALS</b>				
	Supply, Deliver and installation of Cu Conductors: 2.5mm <sup>2</sup> PVC insulated conductor Supply and delivery Installation	Meter Meter	1 200 1 200		
	4mm <sup>2</sup> PVC insulated conductor Supply, delivery and installation	Meter	600		
	4mm <sup>2</sup> 4 core Surfex (For HVAC) Supply, delivery and installation Installation	Meter	150		
	<b>Subtotal - Bill No.15.7 - Skills Development Centre 15.7 - Small Power Installation</b>				
	<b>BILL NO.15.8</b>				
	<b>ELECTRONICS &amp; SECURITY SYSTEM</b>				
	<b>WIREWAYS</b> <i>Supply, delivity and installation of PVC conduit, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.</i>				
	32mm diameter	Meter	80		
	25mm diameter	Meter	60		
	<b>FIRE DETECTION SYSTEM</b> <i>Supply, Deliver, test, install and commission fire detection system as per drawings and tender specification</i>				
	Supply and Deliver	Sum	1		
	Installation	Sum	1		
	<b>Subtotal - Bill No.15.8 - Skills Development Centre 15.8 - Electronics &amp; Security System</b>				
	<b>Subtotal - Skills Development Centre - Workshop Block - Electrical Works</b>				
	<b>BILL NO.15.9</b>	<b>H1</b>			
	<b>LIGHTNING PROTECTION &amp; EARTHING</b>	<b>H1</b>	70		
	<b>Lightning Protection</b> <i>Using a lightning protection company to be approved by the engineer for the installation of lightning protection system</i>				
	Supply and install	<b>Sum</b>	1		
	<b>Subtotal - Bill No.15.9 - Skills Development Centre 15.9 - Lightning Protection &amp; Earthing</b>				
	<b>Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE - Bill No.15 - Electrical Installation Works - Internal &amp; External Reticulation</b>				
	<b>SECTION NO. 2 - BUILDING WORKS</b>				
	<b>SKILLS DEVELOPMENT CENTRE - BILL NO. 16</b>				
	<b>MECHANICAL WORK - HVAC SYSTEM</b>				
	NOTE: Tenderers are required to study the Model Preambles for Trades and the Project Specification before pricing the bills of quantities. -----				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				



**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p><b>Note 1:</b> In all instances Rates tendered shall separate supply/delivery and installation of the relevant item. Commissioning and testing are covered separately.</p> <p><b>Note 2:</b> Quantities reflected in these Bills are for tendering purposes. Contractors must order equipment based on site requirements.</p> <p><b>HVAC SYSTEM</b></p> <p><b>Outdoor VRV condensing unit complete with all fans, compressors, mode control units, refrigeration circuitry, piping connections, anti-vibration mountings, supports, cabling, sensors, safeties and controls.</b></p> <p>AM100FXVAGR/EU - 31.5 kW Cooling, 31.5 kW Heating</p> <p><b>VRV mode control unit (MCU) complete with high pressure and low pressure piping connections from outdoor unit, liquid and gas connections to indoor units, all internal coils, piping, fittings, safeties, cabling and controls including drain pan and drain connection, multi-kits and connection kits</b></p> <p>MCU - S2NEK2N 2 Port MCU Kit</p> <p>MCU - S4NEK3N 4 Port MCU Kit</p> <p><b>Control system for VRV condensing units, mode control unit, indoor split VRV units and allied equipment complete, including control panel, local and remote control elements for units and all sub-systems, variable speed drives, duct pressure sensors, temperature sensors and controls ,etc., including interlinking cabling between control panel and equipment (condensors, etc.) complete.</b></p> <p>Central control system per wing</p> <p>Wireless remote controller</p> <p>Motion detect sensor</p> <p><b>Electrical reticulation for HVAC system complete from HVAC control panel in plant area to all indoor evaporating units including all cabling, conduit, fittings, isolators, circuit breakers, drawboxes and all other equipment necessary to render the electrical installation to the HVAC system fully operational and compliant with the relevant SANS specifications.</b></p> <p>Electrical installation to HVAC system</p> <p><b>4way Cassette Wind-free VRV Type Split Air-Conditioning Indoor Units</b></p> <p><b>Unit consisting of evaporator, installed in suspended ceiling complete including integral drain pump, drain connection, refrigeration piping, drain piping and connection of refrigerant piping and control cabling, as well as remote control station and allied control wiring.</b></p> <p>2.2kW Total Cooling, 2.5kW Total Heating (CAS1)</p> <p>4.5kW Total Cooling, 5.0kW Total Heating (CAS2)</p> <p>5.6kW Total Cooling, 6.3kW Total Heating (CAS3)</p> <p><b>Mid-Wall Wind-free VRV Type Split Air-Conditioning Indoor Units</b></p> <p><b>Unit consisting of evaporator, installed in suspended ceiling complete including integral drain pump, drain connection, refrigeration piping, drain piping and connection of refrigerant piping and control cabling, as well as remote control station and allied control wiring.</b></p> <p>2.2kW Total Cooling, 2.5kW Total Heating (CAS1)</p> <p><b>Y - joint for refrigeration piping between VRV outdoor units, mode control and indoor units, installed on cable tray (measured elsewhere) complete with insulation on both suction and liquid line, as specified.</b></p> <p>MXJ-YA2500M over 22,4 - 70,3kW and below</p> <p>MXJ-YA2512M Over 15,0kW - 40.0kW and below</p>	No.	2		
		No.	1		
		No.	4		
		No.	2		
		No.	12		
		No.	12		
		No.	2		
		No.	2		
		No.	8		
		No.	2		
		No.	4		
		No.	4		
		No.	4		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	MXJ-YA2815M Over 45,0 - 70.3kW and below	No.	1		
	MXJ-YA3800M Over 135.Kw	No.	1		
	<b>PIPING</b>				
	Hard drawn refrigeration piping between VRV condensing units and mode change units, installed on cable tray (measured elsewhere) complete with insulation and cladding on high pressure, low pressure, liquid and heat recovery lines, as specified.				
	6.35mm diameter refrigerant copper pipe	m	129		
	9.52mm diameter refrigerant copper pipe	m	55		
	12.7mm diameter refrigerant copper pipe	m	129		
	15.88mm diameter refrigerant copper pipe	m	59		
	19.05mm diameter refrigerant copper pipe	m	29		
	22.22mm diameter refrigerant copper pipe	m	32		
	Elbow joint for refrigeration piping between VRV outdoor units, mode control and indoor units, installed on cable tray (measured elsewhere) complete with insulation on both suction and liquid line, as specified.				
	12,7mm diameter	No.	5		
	15.88mm diameter	No.	5		
	19,05mm diameter	No.	24		
	22,22mm diameter	No.	20		
	Indoor units panel as per specification.				
	PC4NUFMAN - Wind-Free Panel 4Way	No.	12		
	<b>INVERTER HEAT PUMPS</b>				
	Ceiling Cassette Split Inverter Type Air-Conditioning indoor Units				
	Unit consisting of evaporator and condensing unit, installed complete including condensate pump, drain connection to point in ceiling above evaporator unit, moulded pipe cover housing refrigeration piping, drain piping and condensate pump on wall adjacent evaporator unit, and connection of refrigerant piping and control cabling, electrical breakers and cabling, as well as remote control station and allied control wiring.				
	5.28 kW Total Cooling, 5.86 kW Total Heating unit. (CAS1)	No.	6		
	Under-ceiling Split Inverter Type Air-Conditioning indoor Units				
	Unit consisting of evaporator and condensing unit, installed complete including condensate pump, drain connection to point in ceiling above evaporator unit, moulded pipe cover housing refrigeration piping, drain piping and condensate pump on wall adjacent evaporator unit, and connection of refrigerant piping and control cabling, electrical breakers and cabling, as well as remote control station and allied control wiring.				
	Refrigerant piping and cabling between indoor and outdoor units, as well as drain piping excluded - measured elsewhere.				
	5.2 kW Total Cooling, 5.8 kW Total Heating unit. (UC1)	No.	1		
	Mid-Wall Split Inverter Type Air-Conditioning indoor Units				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Unit consisting of evaporator and condensing unit, installed complete including condensate pump, drain connection to point in ceiling above evaporator unit, moulded pipe cover housing refrigeration piping, drain piping and condensate pump on wall adjacent evaporator unit, and connection of refrigerant piping and control cabling, electrical breakers and cabling, as well as remote control station and allied control wiring.				
	2.5 kW Total Cooling, 2.6 kW Total Heating unit. (UC1)	No.	4		
	<b>PIPING, CABLING FOR SPLIT PACKAGED HEAT PUMP AIR-CONDITIONING UNITS</b>				
	Soft drawn refrigeration piping between split heat pump indoor and outdoor units, installed on cable tray (measured elsewhere) complete with insulation on both suction and liquid line, as specified.				
	9.52mm diameter gas and 6,35mm diameter liquid line	m	45		
	15,88mm diameter gas and 9,52mm diameter liquid line	m	30		
	Galvanised sheet metal cable rack support for refrigerant piping, fixed to roof structure and external walls.				
	305mm wide tray	m	20		
	155mm wide tray	m	180		
	76mm wide tray	m	350		
	Extra over cable rack for vertical or horizontal fitting (Bend, T-piece)				
	305mm wide fitting	No.	10		
	155mm wide fitting	No.	98		
	76mm wide fitting	No.	178		
	Galvanised sheet metal trunking with removeable lid for refrigerant piping, fixed to roof structure and external walls.				
	350mm wide trunking	m	20		
	Extra over cable tray for vertical or horizontal fitting (Bend, T-piece)				
	350mm wide fitting	No.	11		
	Interconnecting cabling				
	Interconnecting multi-core cabling between split unit indoor and outdoor units, run on cable trays supporting refrigerant piping.	m	380		
	PVC condensate piping surface run on external walls				
	32mm diameter pipe	m	20		
	25mm diameter pipe	m	68		
	Extra over for PVC pipe fittings (bends, tees, connections).				
	32mm diameter fittings	No.	21		
	25mm diameter fittings	No.	46		
	All Refrigerant R410a required for VRV System 1	kg	90		
	<b>FANS</b>				
	Descriptions of fan/attenuator assemblies shall be deemed to include supports and anti-vibration mountings from the structure, connections to, and including two attenuators per fan, flexible connections to ductwork, and all electrical connections.				
	Wall mounted axial flow fan with weather louver and weather 2-off sound attenuators complete				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	150mm dia, 0,111m <sup>3</sup> /s at 185Pa - SAF1	No.	1		
	355mm dia, 0,513m <sup>3</sup> /s at 185Pa - SAF2	No.	3		
	400mm dia, 0,871m <sup>3</sup> /s at 185Pa - SAF3	No.	1		
	355mm dia, 0.192m <sup>3</sup> /s at 150Pa - EAF1	No.	1		
	<b>GRILLES, DIFFUSERS, LOUVRES, DAMPERS AND SLEEVES NOT FORMING PART OF FAN ASSEMBLIES MEASURED ELSEWHERE</b>				
	Exhaust air grille, suited installation in circular uninsulated ducting including rectangular spigot				
	200mm diameter (SDV200)	No.	4		
	250mm diameter (SDV250)	No.	1		
	Hand over to builder for installation in wall or beam or door opening				
	600mm wide x 400mm high weather louvre with wire mesh screen. (WL1)	No.	3		
	300mm wide x 300mm high weather louvre with wire mesh screen. (WL2)	No.	1		
	600mm wide x 350mm high weather louvre with wire mesh screen. (WL3)	No.	1		
	400mm wide x 300mm high weather louvre with wire mesh screen. (WL4)	No.	1		
	300mm wide x 250mm high weather louvre with wire mesh screen. (WL5)	No.	1		
	600mm wide x 450mm high weather louvre with wire mesh screen. (WL6)	No.	1		
	400mm wide x 350mm high weather louvre with wire mesh screen. (WL7)	No.	1		
	800mm wide x 400mm high weather louvre with wire mesh screen. (WL8)	No.	1		
	<b>DUCTING</b>				
	Rectangular ducting, uninsulated with flanged connections, supported as per Standard Specification.				
	600 x 400mm	m	4		
	500 x 350mm	m	14		
	350 x 250mm	m	9		
	300 x 300mm	m	4		
	300 x 200mm	m	22		
	Transformation piece in uninsulated rectangular duct				
	400mm diameter to 800 x 400mm	No.	1		
	400mm diameter to 600 x 400mm	No.	1		
	355mm diameter to 500 x 350mm	No.	5		
	355mm diameter to 600 x 400mm	No.	1		
	355mm diameter to 825 x 600mm	No.	1		
	355mm diameter to 500mm diameter	No.	2		
	500mm diameter to 250mm diameter	No.	2		
	500 x 350mm to 350 x 200mm	No.	1		
	Stop end in uninsulated rectangular duct				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	250mm diameter	No.	1		
	500 x 350mm	No.	4		
	350 x 200mm	No.	3		
	250 x 200mm	No.	1		
	Round spigot, uninsulated, 200mm long connected to uninsulated rectangular ducting, including cut-in to parent duct				
	200mm diameter	No.	12		
	250mm diameter	No.	11		
	Uninsulated, fire rated flexible ducting				
	200mm diameter	m	10		
	250mm diameter	m	33		
	<b>PAINTING</b>				
	Painting of the air-conditioning installation as per the Standard Specifications.	Item	1		
	<b>WORKSHOP AND AS-BUILT DRAWINGS</b>				
	The contractor shall make provision for a detailed set of workshop and as-built layout drawings of the entire installation, as the project progresses. Refer to standard detailed specification regarding project drawings.	Item	1		
	<b>COMMISSING AND TESTING</b>				
	Commission and test the air conditioning and ventilation installation in accordance with Standard Specifications.	Item	1		
	<b>GUARANTEE</b>				
	12 months maintenance and guarantee on the installation as a whole in accordance with the Detailed Specifications.	Item	1		
	<b>Subtotal - Bill No.16 - Skills Development Centre 16 - HVAC</b>				
	<b>FIRE PROTECTION</b>				
	<b>Note 1:</b> In all instances Rates tendered shall separate supply/delivery and installation of the relevant item. Commissioning and testing are covered separately.				
	<b>Note 2:</b> Quantities reflected in these Bills are for tendering purposes. Contractors must order equipment based on site requirements.				
	<b>Supply, delivery, installation, commissioning and testing of the fire protection equipment and signage complete with fixtures, fittings, connections and accessories.</b>				
	<b>PIPING</b>				
	<b>uPVC Class 16 pressure pipes with butt welded joints</b>				
	75mm Pipes laid in and including excavation not exceeding 1m deep	m	50		
	110mm Pipes laid in and including excavation not exceeding 1m deep	m	120		
	<b>Extra over uPVC Class 16 pressure pipes with couple on joints</b>				
	75mm Fitting	No	27		
	110mm Pipes	No	71		
	<b>Galvanised Mild Steel pressure pipes</b>				
	25mm Pipes	m	110		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	50mm Pipes	m	40		
	75mm Pipes	m	20		
	<b>Extra over Galvanised Mild Steel pressure pipes</b>				
	25mm Fitting	No	58		
	50mm Fitting	No	24		
	75mm Fitting	No	13		
	<b>FIRE EQUIPMENT</b>				
	ABC and Dry Chemical Powder, 4,5kg, mounted inside cabinet.	No	16		
	ABC and CO2, 5.0 kg, mounted inside cabinet.	No	4		
	Fire hose reel inside steel cabinet, 30m hose at discharge rate of 0,5l/s @400kPa	No	8		
	Fire Signage with electrical power, size 190 x 190mm	No	14		
	Fire Equipment Signage laminated to glow in the dark, size 190 x 190mm	No	68		
	<b>PAINTING</b>				
	Painting of the air-conditioning installation as per the Standard Specifications (Fire Protection).	Item	1		
	<b>AS-BUILT DRAWINGS</b>				
	The contractor shall make provision for a detailed set of as fitted layout drawings of the entire installation, as the project progresses. Refer to standard detailed specification regarding project drawings.	Item	1		
	<b>PRESSURE TESTING</b>				
	The Contractor shall make provision to pressure test the installation during construction - See Standard specification.	Item	1		
	<b>Subtotal - Bill No.16 - Skills Development Centre 16 - Fire protection</b>				
	<b>WET SERVICES (PROVISIONAL)</b>				
	Note 1: In all instances Rates tendered shall separate supply/delivery and installation of the relevant item. Commissioning and testing are covered separately.				
	Note 2: Quantities reflected in these Bills are for tendering purposes. Contractors must order equipment based on site requirements.				
	<b>HOT WATER GENERATION</b>				
	Supply, delivery, installation, commissioning and testing of the hot water generation system with storage complete with fixtures, fittings, connections and accessories.				
	150l split type solar pre-heater, indirect heating thermo-syphon type complete with expansion tanks without backup elements.	No	2		
	150l electrical geyser with 2kW electrical element, provided with thermal insulation.	No	2		
	10L Vertical mounted hydroboil unit above sink including all accessories complete	No	1		
	<b>DOMESTIC WATER</b>				
	Class "2" hard drawn capillary type copper tubing, including straight couplers in running lengths fixed to/in walls, in ceilings, against soffits for Cold and Hot Water, insulated.				
	15mm Pipes	m	68		
	22mm Pipes	m	30		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	28mm Pipes	m	20		
	35mm Pipes	m	15		
	15mm Pipe in and including chase in brickwork	m	30		
	22mm Pipe in and including chase in brickwork	m	10		
	28mm Pipe in and including chase in brickwork	m	18		
	35mm Pipe in and including chase in brickwork	m	10		
	Extra over Class "2"hard drawn type copper tubing for fittings, insulated.				
	Common fittings (elbows, tees, reducers, crossovers, etc)				
	15mm Fittings	No	58		
	22mm Fittings	No	26		
	28mm Fittings	No	28		
	35mm Fittings	No	18		
	Class 16 uPVC pressure pipes with joints and concrete on bends and fittings				
	50mm Pipes laid in ground in and including excavation not exceeding 1m deep	m	45		
	Extra over Class 16 uPVC pressure pipes with joints				
	50mm Fitting	No	26		
	<b>INTERNAL DRAINAGE</b>				
	uPVC soil and vent pipes				
	110mm Pipes	m	60		
	50mm Pipes	m	70		
	50mm Pipes chased into brickwork	m	30		
	50mm Pipes laid in ground in and including excavation not exceeding 1m deep	m	28		
	110mm Pipes laid in ground in and including excavation not exceeding 1m deep	m	130		
	<b>uPVC Fittings</b>				
	110mm Fittings	No	108		
	50mm Bend	No	45		
	50mm Access bend	No	45		
	50mm Junction	No	45		
	Concrete gully fitted with accessories				
	110mm gully with grid	No	14		
	Concrete rodding eye fitted with cover				
	110mm rodding eye with cover	No	14		
	<b>PAINTING</b>				
	Painting of the air-conditioning installation as per the Standard Specifications (Wet Services).	Item	1		
	<b>AS -BUILT DRAWINGS</b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	The contractor shall make provision for a detailed set of as fitted layout drawings of the entire installation, as the project progresses. Refer to standard detailed specification regarding project drawings.	Item	1		
	<b>PRESSURE TESTING</b>				
	The Contractor shall make provision to pressure test the installation during construction - See Standard specification.	Item	1		
	<b>Subtotal - Bill No.16 - Skills Development Centre 16 - Wet Services</b>				
	<b>Total - SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.16 - Mechanical Installation</b>				
	<b>SECTION NO. 2 - BUILDING WORKS</b>				
	<b>SKILLS DEVELOPMENT CENTRE - BILL NO. 17</b>				
	<b>GLAZING</b>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>SUPPLEMENTARY PREAMBLES</b>				
	Descriptions and preambles in other trades and bills in other sections of the works. If necessary, reference shall be made to other trades and preambles in other sections of the works for full preambles and full descriptions of items which might not be fully described in this bill, but which shall apply equally to the works in this bill, unless otherwise described.				
	<b>MIRRORS, ETC.</b>				
	<b>4mm Silvered float glass copper backed mirrors with 10mm bevelled and polished edges fixed with doubled sided adhesive tape on top of tile</b>				
	Mirror size overall 900 x 1200mm high	No	8		
	Mirror size overall 420 x 600mm high	No	4		
	<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No. 17 - Glazing</b>				
	<b>SECTION NO. 2 - BUILDING WORKS</b>				
	<b>SKILLS DEVELOPMENT CENTRE - BILL NO. 18</b>				
	<b>PAINTWORK</b>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>SUPPLEMENTARY PREAMBLES</b>				
	<b>PAINT SPECIFICATIONS</b>				
	All painting shall be done in accordance with Architect' specifications unless otherwise described				
	<b>COLOURS</b>				
	<u>User note</u>				



**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>In the event of the colour scheme for the project not being available when required for the preparation of quantities, it is recommended that either all paintwork be described as being in the "White" colour group or that ceilings be described as being in the "White" colour group and the balance being in the "Pastel" colour group and that provision be made for other colour groups by way of "extra over" items marked "Provisional" as provided for in the measuring system (See measurement rule No. 5 under item 2: Colours). The following items are examples of such "extra over" items:</p> <p>"Extra over for paintwork on components (ceilings?) in the "White" colour group for paintwork in the "Pastel" colour group (Provisional) m<sup>2</sup>"</p> <p>"Extra over for paintwork on components in the "Pastel" colour group for paintwork in the "Deep" colour group (Provisional) m<sup>2</sup>"</p> <p>Unless otherwise described paintwork on ceilings shall be deemed to be in the "White" colour group and paintwork on all other components shall be deemed to be in the "Pastel" colour group in accordance with the Natural Colour System (NCS) adopted by the SA National Standards</p> <p><b><u>PAINTWORK TO NEW SURFACES</u></b></p> <p><b><u>ON SMOOTH CONCRETE</u></b></p> <p><b>Prepare and apply one coat DULUX ecosure plaster primer and two coats DULUX trade ecosure matt and including painting of all services in accordance with the relative specification</b></p> <p>On exposed concrete soffits</p>	m <sup>2</sup>	395		
	<p><b><u>ON WOOD SURFACES</u></b></p> <p><b>Sand and stop where necessary. Prepare and apply Dulux primer for wood (oil based), Dulux clear timber vanish-eggshell finish</b></p> <p>Doors</p>	m <sup>2</sup>	347		
	<p><b><u>ON INTERNAL FLOATED PLASTER SURFACES</u></b></p> <p><b>Prepare, undercoat and two coats "Plascon Low Sheen acrylic emulsion", or equal and approved, paint</b></p> <p>On internal walls</p> <p>On narrow widths</p>	m <sup>2</sup>	5 617		
	<p><b><u>ON EXTERNAL FLOATED PLASTER SURFACES</u></b></p> <p><b>Prepare, undercoat and two coats "Plascon Low Sheen", or equal and approved, paint</b></p> <p>On external walls</p> <p>On narrow widths</p>	m <sup>2</sup>	441		
	<p><b><u>ON METAL SURFACES</u></b></p> <p><b>Factory coated Red Oxide with phosphate primer for semigloss enamel paint Dulux French clay 611-4</b></p> <p>Door frames</p>	m <sup>2</sup>	347		
	<p><b><u>Polyurethane varnish to new interior wood. Sand with abrasive paper, leaving surface clean and dust free. Apply two coats varnish (Eggshell finish) with an overcoating time of 18 hours.</u></b></p> <p>On doors</p>	m <sup>2</sup>	58		
	<p><b><u>ON PLASTER BOARD</u></b></p> <p><b>Prepare and apply one coat DULUX trade ecosure plaster primer and two coats DULUX trade 100 lowsheen</b></p>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Ceilings soffits	m <sup>2</sup>	384		
<b>Sub-Total SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE Bill No.18 - Paintwork</b>					
<b><u>SUMMARY</u></b>					
<b><u>SECTION NO 2. BUILDING WORKS - SKILLS DEVELOPMENT CENTRE</u></b>					
<b>SECTION NO. 2.1 - ADMINISTRATION BLOCK, LECTURE ROOMS AND WORKSHOPS</b>					
1	EARTHWORKS				
2	CONCRETE, FORMWORK AND REINFORCEMENT				
3	MASONRY				
4	WATERPROOFING				
5	ROOF COVERINGS				
6	CARPENTRY AND JOINERY				
7	CEILINGS AND PARTITIONS				
8	FLOOR COVERINGS				
9	IRONMONGERY				
10	STRUCTURAL STEELWORK				
11	METALWORK				
12	PLASTERING				
13	TILING				
14	PLUMBING AND DRAINAGE				
15	ELECTRICAL WORK				
16	MECHANICAL WORK - HVAC SYSTEM				
17	GLAZING				
18	PAINTWORK				
<b>SUBTOTAL - BUILDING WORKS - SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE - ADMINISTRATION BLOCK, LECTURE ROOMS AND WORKSHOPS</b>					
<b><u>SECTION NO. 2.1 - EXTERNAL WORKS - SKILLS DEVELOPMENT CENTRE</u></b>					
<b><u>EXTERNAL WORKS - BILL NO. 1</u></b>					
<b><u>ROADWORKS AND PAVING (PROVISIONAL)</u></b>					
<b><u>SUPPLEMENTARY PREAMBLES</u></b>					
<b><u>Preambles</u></b>					
The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.					
Proprietary Products In Descriptions					
Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Pincipal Agent					
Nature of Material to be Excavated					
The material to be excavated is assumed to be					
predominantly of a composition that will allow excavation in "					
earth" as specified, but including a percentage of excavation					
in "soft rock" and "hard 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					
Density Testing On Filling					
Rates for filling, etc. shall include for all density and soil type testing to prove that the specified compaction is achieved					

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally				
	Formwork				
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"				
	Reinforced Concrete				
	All reinforced concrete is to be compacted with a mechanical vibrator.				
	All concrete work shall comply to SABS 1200G				
	<b><u>BULK EXCAVATION, FILLING, ETC</u></b>				
	<b><u>Open face excavation in earth over sloping site</u></b>				
	Open face excavation	m3	1 380,00		
	<b><u>Extra over bulk excavation in earth for excavation in</u></b>				
	Soft rock	m3	41,40		
	Hard rock	m3	69,00		
	<b><u>Compaction of surfaces</u></b>				
	Compaction of roads and parking surface etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	4 600,00		
	<b><u>Extra over all excavations for carting away</u></b>				
	Surplus material from excavations and/or stock piles on site to a dumping site situated not exceeding 50km from the site	m3	1 269,60		
	<b><u>Earth filling supplied by the contractor under pavings etc</u></b>				
	Filling with (G5) gravel material, selected and supplied by the Contractor, deposited, watered and consolidated to 98% modified AASHTO density in 125mm thick sub-base course under roads, including bedding sand	m3	1 840,00		
	<b><u>TESTS</u></b>				
	<b><u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u></b>				
	"Modified AASHTO Density" test	No	10,00		
	"Natural California Bearing Ratio" test	No	10,00		
	<b><u>CONCRETE PAVING TO LATER SPECIFICATION</u></b>				
	<b><u>80 mm concrete paving blocks, Shape S-A Class 30/2.0 (in accordance with SANS 1058 latest edition) on 20 mm bedding sand (COLTO 7302(a))</u></b>				
	Paving of 80mm thick blocks including edge blocks	m2	1 792,00		
	Paving of 80mm thick blocks including edge blocks, to falls (LI)	m2	89,60		

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b><u>PAINTWORK</u></b>				
	<b><u>Prepare and paint two coats approved road marking paint:</u></b>				
	Line 100mm wide on paving blocks	m	155		
	RTM1 Stop word marking in approved road paint.	No	6		
	Directional arrow 100mm wide and 2500mm long	No	21		
	<b><u>ROAD SIGNAGE</u></b>				
	R1 Stop sign fixed to and including "D" section pole erected in position including excavation, concrete, etc. complete	No	7		
	<b>Sub-Total - Section No.2.1 - SKILLS DEVELOPMENT CENTRE - External Works Bill No.1 - Road Works and Paving</b>				
	<b><u>SECTION NO. 2.1 - EXTERNAL WORKS - SKILLS DEVELOPMENT CENTRE</u></b>				
	<b><u>EXTERNAL WORKS - BILL NO. 2</u></b>				
	<b><u>STORMWATER</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades and to the Supplementary Preambles				
	Note: Where no engineer's or manufacturer's instructions exist, Plumbing and Drainage shall be done in accordance with the relevant SABS 1200 clauses				
	The Tenderers are referred to Section 1 Preliminaries Clause 41.4.3 in the Principal Building Agreement for Supplementary Preambles on measurements and payments which will apply equally to this bill, unless otherwise described				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	<b><u>"Polycop" polypropylene pipes</u></b>				
	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				
	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 instructions				
	All pipe diameters are nominal external				
	<b><u>"Polylink" polypropylene pipes:</u></b>				
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints				
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured				
	Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers				
	Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers				
	Reducers shall include jointing to pipes with PVC rubber ring				

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>double Z joint couplers and reducers shall be of sufficient overall length to accommodate same</p> <p>All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</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>Pipes for water supply shall be of the class stated</p> <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>Copper pipes:</u></p> <p>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</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> <p><u>Laying, backfilling, bedding, etc. of pipes</u></p>				

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<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:</p> <p>SABS 1200 L : Medium-pressure pipelines</p> <p>LD : Sewers</p> <p>LE : Stormwater drainage</p> <p>Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200</p> <p>DB : Earthworks (Pipe trenches)</p> <p>Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200</p> <p>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><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><u>Steel sectional water tanks</u></p> <p>Tanks shall comply with SABS CKS 114</p> <p><u>"Densyl" petrolatum anti-corrosion tape</u></p> <p>Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described</p> <p>Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p> <p><b><u>STORMWATER DRAINAGE</u></b></p> <p><u>Class 75D concrete pipes:</u></p> <p>600mm Diameter Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep</p> <p><b><u>MANHOLES</u></b></p> <p><u>Precast concrete circular inspection chambers including cast iron cover (cover elsewhere measured) and channels in benching</u></p> <p>1000 x 1000mm inspection chamber 800mm deep</p>				
		m	488,00		
		no	15		

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

ITEM NO	BILL				
		UNIT	QUANTITY	RATE	AMOUNT
	<p><u>Cast iron covers, etc:</u></p> <p>Type 2A 825mm diameter cast iron manhole cover and frame</p>	no	15		
	<p><b><u>GRID INLET</u></b></p> <p><u>Grid Inlets including excavations, backfilling, brickwork, compaction and cart away surplus material, spacer, adaptor slabs, benching, junctions, channelling and step irons for the following depths:</u></p> <p>Construct 400 x 600mm grid inlet 800mm deep</p>	no.	6		
	<p><b><u>SUNDRIES</u></b></p> <p>Anchors for pipes</p> <p>Testing stormwater drainage system</p>	no Item	3 2		
	<p><b><u>STORMWATER CHANNEL</u></b></p> <p>Precast concrete channels:</p> <p>1000 x 150mm V' channel with 100mm deep segmental channel</p> <p>Extra over for angles, intersections, ends, dressing into sides of catchpits, etc</p> <p>In situ concrete channelling, chutes, downpipes and lining for open drain</p>	m no m	16 16 155		
	<b>Sub-Total - Section No.2.1 - SKILLS DEVELOPMENT CENTRE - External Works Bill No.3 - Stormwater</b>				
	<b><u>SECTION NO. 2 - SKILLS DEVELOPMENT CENTRE - EXTERNAL WORKS</u></b>				
	<b><u>EXTERNAL WORKS - BILL NO. 4</u></b>				
	<b><u>FENCING</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	<b><u>FENCING AND GATES</u></b>				
	<p><b><u>Invisible Fencing</u></b></p> <p>Supply and installation of invisible fencing to be 3305mm x 2400mm high, including steel post bases excavation, backfilling with concrete bases, with panel aperture size centres at 76.2x12.7mm, wire diameter at 3.5mm, the panels shall be reinforced with 4x50mm deep V formation horizontal recessed bands, the panels shall have 2x70 degree flanges along sides, posts shall be 2.4m long taper locking pos</p>	m	126		
	<p>Supply and installation of the sliding gate size 6000mm x 1800mm high to match the prescribed specifications.</p>	no.	2		
	<p>Supply and installation of spikes</p>	m	42		
	<p><b><u>Turnstile</u></b></p> <p><b>Supply and installation of access biometrics</b> to existing Flow Systems Model 356 electronically controlled double electrical bi-directional 4-arm (90°) revolving turnstile, overall size 2180 x 1200 x 2181mm high painted mild steel enclosure with 38mm diameter tube rotor arms and biometric reader access control, to suit opening size 2200 x 2500mm high, bolted to 20MPa 2400 x 1300 x 150mm thick concrete base with 12No. M12 x 75mm anchor bolts and connected to 220V AC single phase power supply.</p>	Item	1		
	<b>Sub-Total - Section No.2.1 - SKILLS DEVELOPMENT CENTRE - External Works Bill No.4 - Fencing</b>				
	<b>Total - External Works - SKILLS DEVELOPMENT CENTRE Bill No. (1 - 4) - Road Works and Paving, Stormwater &amp; Fencing</b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE - PROVISIONAL SUMS, ETC.</u></b>				
	<b><u>BILL NO. 1</u></b>				
	<b><u>PROVISIONAL SUMS, ETC.</u></b>				
	<b>NOTES:</b>				
	<p>1. The contractor's attention is drawn specifically to the Principal Building Agreement clause 20.0 (nominated subcontractors), clause 21.0 (selected subcontractors) and clause 22 (employer's direct contractors) and to the related clauses in Bill No. 1 - Preliminaries of the bills of quantities..</p> <p>Notwithstanding the provisions of the contract agreement as included under "Preliminaries" general attendance on N/S subcontractors shall be deemed to be as follows:- The contractor shall, at his own expense, provide the following general attendance on the N/S subcontractor executing each such subcontract works:- i. Access to the site and places where such subcontract works are to be executed, including the reasonable use of temporary personnel hoists erected by the contractor. ii. Potable water, electric lighting and single-phase electric power to a position within 50-metres of the place where such subcontract works are to be executed, but excluding water, fuel and electric power for commissioning of any installation. iii. An area on site for such subcontractor to establish temporary office accommodation and workshops and for the storage of plant and materials for the works. iv. The use of erected scaffolding belonging to the contractor, in common with others having the like right, while it remains erected on site. v. The use of the contractor's ablution and toilet facilities, and the like, where provided. vi. The use of the contractor's site telephone and facsimile machine, where provided, subject to the payment by such subcontractor for usage thereof."</p> <p>2. The contractor's attention is drawn to the definition of "special attendance" on Nominated, or Selected, subcontractors and of fuel, electrical power and water for commissioning of mechanical and other specialised installations given in the ASAQs Preliminaries.</p> <p>3. Where special attendance includes the provision of hoisting facilities for a N/S subcontractor then the contractor shall:-</p> <p>* ensure that the capacities of his hoisting equipment are sufficient to deal with the masses and the quantities of the items to be hoisted,</p> <p>• schedule the times of availability of the hoisting equipment for each N/S subcontractor,</p> <p>• provide all necessary personnel to operate the hoisting equipment,</p> <p>all to enable such subcontractor to safely execute the hoisting, or lowering, of his material, etc., using the facilities provided by the contractor.</p>				
	<b><u>EXTERNAL SIGNAGE</u></b>				
	Provide the sum of R 150 000.00 (One Hundred and Sixty Thousand Rands) for external signage.	Item	1		
	Profit.	%IT	3%		
	General attendance	%IT	3%		
	<b><u>DIRECTIONAL SIGNAGE</u></b>				
	Provide the sum of R 70,000.00 (Seventy Thousand Rands) for directional signage	Item	1		
	Profit.	%IT	3%		
	General attendance	%IT	3%		
	<b><u>WATER HARVESTING SYSTEMS</u></b>				
	Provide the sum of R450,000.00 (Four Hundred and Fifty Thousand Rands) for supply and installation of Water harvesting systems	Item	1		
	Profit.	%IT	3%		



**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	General attendance	%IT	3%		
	<b>RAMMED EARTH WALL</b>				
	Provide the sum of R100,000.00 (One Hundred Thousand Rands) for supply and installation of Chicken Coop	Item	1		
	Profit.	%IT	3%		
	General attendance	%IT	3%		
	<b>STONE CLADDING</b>				
	Provide the sum of R40,000.00 (Fourty Thousand Rands) for supply and installation of Stone cladding and other External façade elements	Item	1		
	Profit.	%IT	3%		
	General attendance	%IT	3%		
	<b>AMPITHEATRE</b>				
	Provide the sum of R500,000.00 ( Five Hundred Thousand Rands) for supply and installation of an Ampitheatre	Item	1		
	Profit.	%IT	3%		
	General attendance	%IT	3%		
	<b>TIMBER SCREEN WALL &amp; TIMBER ATRIUM SEATING DECKING AND / PLANTER BOX</b>				
	Provide the sum of R225,000.00 (Two Hyndred and Twenty Five Thousand Rands) for supply and installation of a Timber screen wall & a Timber seat deck	Item	1		
	Profit.	%IT	3%		
	General attendance	%IT	3%		
<b>Sub -Total - Section No.2.1 - SKILLS DEVELOPMENT CENTRE - Provisional Sums</b>					
<b>SECTION NO. 2.1 - BUILDING WORKS - SKILLS DEVELOPMENT CENTRE</b>					
<b>SECTION NO. 2.1.1 - EXTERNAL CLASSROOMS</b>					
<b>BILL NO. 1</b>		<b>H2</b>			
<b>EARTHWORKS (PROVISIONAL)</b>		<b>H3</b>			
NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill					
NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices					
<b>SUPPLEMENTARY PREAMBLES</b>		<b>H3</b>			
<b>Nature of ground</b>		<b>H4</b>			
The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "hard rock" or "soft rock"					
<b>Classification of materials</b>		<b>H4</b>			
If the contractor considers that any of the excavations are more difficult in nature than excavations in "earth", he shall immediately notify the principal agent and quantity surveyor agent in writing. If the contractor fails to make such notification, the excavations shall be deemed to be in "earth" and shall be measured, and valued, accordingly					

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>The contractor may, with the prior written permission of the principal agent and in terms of the conditions of contract, use any method he chooses to excavate any class of material, but his chosen method of excavation shall not determine the classification of the materials excavated</p> <p><b>Risk of collapse of sides of excavations</b></p> <p>The contractor shall be responsible for the risk of collapse of all excavated faces. Where excavations do not exceed 1.5m in height, the nature of the precautions to be taken shall be entirely at the contractor's discretion. The contractor shall either temporarily support the excavated faces, or carry the risk of collapse of such faces with all its implications. Where excavations exceed 1.5m in height, the contractor shall maintain all excavated faces in accordance with Government Regulations</p> <p>Unless otherwise described, excavations for working space shall include any additional risk of collapse so incurred</p> <p><b>Keeping excavations free of water</b></p> <p>The contractor shall protect the excavations from the ingress of water. Any water which occurs in the excavations, whether as a result of seepage, rain, or other causes, shall immediately be removed by the contractor by baling, pumping, or other approved means</p> <p>Unless otherwise described, all "filling" and "backfilling" is hereby deemed to be compacted to 97% Mod.AASHTO density. In the bills of quantities, "AASHTO" is defined as meaning "American Association of State Highway and Transportation Officials"</p> <p><b>Compaction of all "filling" and "backfilling"</b></p> <p>from the earthworks</p> <p>Descriptions of "removing", or "carting away", of such material shall be deemed to include loading such material onto trucks directly from the works, or, alternatively, from stock piles situated on the site, and taking such material to a registered dump-site that has been located off-site by the contractor for such disposal The contractor is hereby deemed to be responsible for the choice of dumping site. If a dump-site is foreclosed, or unavailable, for whatever reason, it remains the contractor's responsibility to timeously obtain a suitable replacement dump-site without additional cost to the employer</p> <p><b>"Density Tests on Earth and other Filling Materials"</b></p> <p>The contractor will not be entitled to claim for the cost of density, and/or any other, tests that are required in terms of the specification of earth and other materials required for "filling" works, where such tests are a routine requirement contained in the description associated with such parts of the works, and where the costs of such tests are therefore an integral cost of the execution of such parts of the works The contractor will only be reimbursed for the "additional" cost of density, and/or any other, tests that are specifically prescribed in terms of a contract instruction, and which tests represent additional undertaking by the contractor to that required by the aforesaid specification</p> <p><b>SITE CLEARANCE AND REMOVAL OF TREES, ETC.</b></p> <p><b>Clear site and remove all debris, shrubs etc</b></p> <p>Site clearance</p> <p><b>EXCAVATION, FILLING, ETC</b></p> <p><b>Excavation in earth not exceeding 2m deep</b></p> <p>Bulk excavation</p> <p>Reduced levels under floors</p> <p><b>Excavation in imported compacted filling not exceeding 2m deep</b></p> <p>Trenches</p> <p>Surface bed</p>	<p>H4</p> <p>H4</p> <p>H4</p> <p>H2</p> <p>H3</p> <p>m2</p> <p>H2</p> <p>H4</p> <p>m3</p> <p>m3</p> <p>H4</p> <p>m3</p> <p>m3</p>	<p>141</p> <p>192</p> <p>19</p> <p>51</p> <p>16</p>		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>Extra over bulk excavations in earth for excavation</b>	<b>H4</b>			
	Soft rock	m3	23		
	Hard rock	m3	14		
	<b>Extra over trench and hole excavations in imported compacted filling for excavation</b>	<b>H4</b>			
	Soft rock	m3	404		
	Hard rock	m3	269		
	<b>Extra over all excavations for carting away</b>	<b>H4</b>			
	Surplus material from excavations on site to a dumping site to be located by the contractor, distance of +- 10 KM away from site	m3	192		
	<b>Risk of collapse of excavations</b>	<b>H4</b>			
	Sides of bulk excavations not exceeding 1,5m deep	m2	154		
	<b>Keeping excavations free of water</b>	<b>H4</b>			
	Keeping excavations free of all water other than subterranean water	Item	1		
	<b>Prescribed density tests on filling</b>	<b>H4</b>			
	"Modified AASHTO Density" test	No	27		
	<u>150mm thick selected in-situ layer compacted to 93% Mod ASSHTO</u>				
	Under floors, steps, paving, etc	m3	58		
	<b>Imported material compacted to 93% MOD AASHTO Density</b>	<b>H4</b>			
	G5 imported material in filling excavated surfaces below concrete surface beds compacted in layers of 150mm	m3	173		
	G7 imported material in filling excavated surfaces below concrete surface beds compacted in layers of 150mm	m3	230		
	<b>SOIL POISONING</b>	<b>H2</b>			
	<b>Soil insecticide</b>	<b>H4</b>			
	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	128		
<b>TOTAL - SECTION NO. 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO. 1 - EARTHWORKS</b>					
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO 2</b>	<b>H2</b>			
	<b>CONCRETE, FORMWORK AND REINFORCEMENT</b>	<b>H2</b>			
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>SUPPLEMENTARY PREAMBLES</b>	<b>H2</b>			
	<b>Cost of tests</b>	<b>H3</b>			

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>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 for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)</p> <p><b>Breeze concrete</b></p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1:12); the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><b>Lightweight concrete</b></p> <p>Lightweight concrete shall have a density of 600kg/m3 for the top 50mm and 400kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p> <p><b>Formwork</b></p> <p>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</p> <p>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</p> <p>Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described</p> <p>Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"</p> <p><b>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</b></p> <p><b>Unreinforced concrete 15MPa/22mm:</b></p> <p>50mm concrete Blinding</p> <p><b>REINFORCED CONCRETE CAST ON/IN FORMWORK AND AGAINST EXCAVATED SURFACES</b></p> <p><b>Reinforced concrete 30Mpa / 19mm in:</b></p> <p>Raft including Ground Beam</p> <p><b>REINFORCED CONCRETE</b></p> <p><b>Reinforced concrete 30Mpa / 19mm in :</b></p> <p>Strip footings</p> <p>Stairs and landings</p> <p><b>TEST CUBES</b></p> <p>Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)</p> <p><b>CONCRETE SUNDRIES</b></p> <p><b>SURFACE TREATMENT</b></p> <p>Power float top of concrete to a dead level, hard wearing, smooth and even surface in accordance with SABS 0100 Code of Practice to:</p>	<p><b>H3</b></p> <p><b>H3</b></p> <p><b>H3</b></p> <p><b>H3</b></p> <p><b>H3</b></p> <p><b>H3</b></p> <p><b>H4</b></p> <p>m3</p> <p><b>H3</b></p> <p><b>H4</b></p> <p><b>H3</b></p> <p><b>H4</b></p> <p>m3</p> <p>m3</p> <p><b>H3</b></p> <p>No</p> <p><b>H3</b></p> <p><b>H3</b></p>	<p>2</p> <p>128</p> <p>18</p> <p>12</p> <p>30</p>		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Surface beds, slabs etc	m2	128		
	<b>FORMWORK</b>	<b>H3</b>			
	<b>ROUGH FORMWORK</b>	<b>H3</b>			
	<u>Rough formwork to soffits of:</u>				
	Sloping concrete staircase	m2	21		
	<u>Rough formwork to sides of:</u>				
	Edges, ends, risers, reveals etc not exceeding 300mm high or wide	m	64		
	<b>REINFORCEMENT</b>	<b>H3</b>			
	<b>Mild and high tensile steel bar reinforcement to structural concrete work in:</b>	<b>H3</b>			
	All Diameter bars	t	3		
	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m <sup>2</sup>	128		
<b>TOTAL - SECTION NO. 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 3 - CONCRETE, FORMWORK AND REINFORCEMENT</b>					
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO 4</b>	<b>H2</b>			
	<b>MASONRY</b>	<b>H2</b>			
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>SUPPLEMENTARY PREAMBLES</b>	<b>H2</b>			
	<b>Sizes in descriptions</b>				
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length				
	Face bricks				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	Pointing				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	<b>BLOCKWORK</b>	<b>H3</b>			
	Concrete masonry units				
	Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 7MPa				
	<b>Wall ties for blockwork</b>				
	Wall ties shall be polypropylene ties complying with BS 76377. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings,				
	<b>Blockwork</b>				
	Blockwork shall comply with SANS 10145 "Concrete Masonry Construction"				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole				
	<b>Standard complementary blocks</b>				
	Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary				
	<b>DECORATIVE BLOCKS</b>	<b>H3</b>			
	Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour				
	<b>BRICKWORK</b>	<b>H3</b>			
	<b>FOUNDATIONS</b>	<b>H3</b>			
	<b>Brickwork of NFP bricks in class II mortar</b>	<b>H4</b>			
	One brick walls in foundation	m2	64		
	Half brick walls in foundation	m2	32		
	<b>SUPERSTRUCTURE</b>	<b>H3</b>			
	Half brick walls	m <sup>2</sup>	405		
	One Brick wall	m <sup>2</sup>	202		
	<b>GABLE ROOF</b>	<b>H3</b>			
	One Brick wall	m <sup>2</sup>	22		
	<b>BRICKWORK SUNDRIES</b>	<b>H3</b>			
	<b>Brickwork reinforcement</b>	<b>H4</b>			
	75mm Wide reinforcement built in horizontally	m	40		
	150mm Wide reinforcement built in horizontally	m	80		
	<b>Prestressed fabricated lintels</b>	<b>H4</b>			
	115mm x 70mm Lintels in lengths not exceeding 3m	m	16		
	<b>FACE BRICKWORK</b>	<b>H3</b>			
	Extra over ordinary brickwork for face brickwork	m2	101		
	<b>FIBRE-CEMENT WINDOW SILLS</b>	<b>H3</b>			
	All internal sills to be 12 - 15mm fibre cement and to be painted as internal walls. To be screwed to brickwork.	m	16		
	<b>MOVEMENT JOINTS, ETC</b>	<b>H3</b>			
	Expansion joints with 10mm soft board between vertical concrete surfaces and brick surfaces				
	10mm Joints not exceeding 300mm high	m	80		
	<b>Turning piece</b>	<b>H4</b>			
	230mm wide turning piece to lintels	m	20		
	<b>Galvanised wire ties etc</b>	<b>H4</b>			
	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end bu	No	15		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>TOTAL - SECTION NO. 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO. 4 - MANSORY</b>				
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO. 5</b>	<b>H2</b>			
	<b>WATERPROOFING</b>	<b>H2</b>			
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>SUPPLEMENTARY PREAMBLES</b>				
	<b>Waterproofing</b>	<b>H3</b>			
	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				
	<b>DAMPPROOFING OF WALLS AND FLOORS</b>	<b>H2</b>			
	One layer of 375 micron Consol Plastic Brikgrip DPC" embossed damp proof course				
	In walls and under cills	m2	26		
	<b>One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</b>				
	Under surface beds	m2	128		
	To bottoms of trenches	m2	60		
	<b>SEALING STRIPS, JOINT SEALANTS, ETC</b>	<b>H2</b>			
	Sealant: Polyurethane and colour to match mortar.				
	10x10mm joint sealant.	m	40		
	<b>TOTAL - SECTION NO. 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO.5 - WATERPROOFING</b>				
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO 6</b>	<b>H2</b>			
	<b>ROOF COVERINGS, CLADDINGS, ETC</b>	<b>H2</b>			
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>SUPPLEMENTARY PREAMBLES</b>	<b>H2</b>			
	<b>General</b>				
	All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched				
	Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use				
	<b>Sizes</b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>All items are measured net unless otherwise described</p> <p><b>Flashings, trimming plates, etc.</b></p> <p>Prices to include for all cutting and waste and relevant fixing material, unless otherwise described</p> <p>All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable</p> <p>All items are unless otherwise described measured net</p> <p><b>PROFILED METAL SHEETING AND ACCESSORIES</b></p> <p><b>Concealed fix system interlocking trapezoidal rib profile, roof sheeting, Chromadek Roof sheeting fixed to Steel intermediate purlins at MAX 1200mm, on 38mm x 114mm prefabricated steel trusses, trusses spaced at max 900mm c/c on 38mm x 114mm timber wall plate, with sisilation underlay. all in accordance with the manufacturer's specifications and recommendation .</b> <b>Colour: Charcoal Grey</b></p> <p>Roof covering with a 22.5 degree pitch</p> <p><b>ROOF INSULATION</b></p> <p><b>LAMBDABOARD laminated polyisocyanurate core board with a minimum core density of 34 kg/m3, minimum thickness of 30mm; in widths of 1220mm with a 1.25 (Km2/W) R-Value.Finish with white mineral and mineral natural laminated on each side with a 9mm plasterboard laminated on one side using Rigibond 5 adhesive.LAMABABORD must be installed using nylon anchors (appr. 4/m2) counter sunk into the board with a fibre tape used on the joints and on the fixings, all to be installed as per the manufacturer's specifications</b></p> <p>Insulation laid taut over steel purlins which are at approximately 1,3m centres and fixed concurrently with roof coverings, including galvanised steel straining wires.</p>	H3			
		m2	136		
		m <sup>2</sup>	136		
<b>TOTAL - SECTION NO. 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - - BILL NO. 6 - ROOF COVERING</b>					
	<p><b>SECTION NO. 2.1.1</b></p> <p><b>BILL NO 7</b></p> <p><b>CARPENTRY AND JOINERY</b></p> <p>NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill</p> <p>NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices</p> <p><b>SUPPLEMENTARY PREAMBLES</b></p> <p><b>Fixing</b></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> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p>Decorative thermosetting plastic laminate covering</p> <p>Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish</p> <p><b>SKIRTINGS</b></p> <p><b>Wrought meranti</b></p>	H1			
		H2			
		H2			
		H2			
		H3			
		H4			



**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	22 x 100mm Meranti skirting, finished with Polyurethane varnish to new interior wood. Sand with abrasive paper, leaving the surface clean and dust free. Apply two coats of varnish (Eggshell finish) with an over coating time of 18 hours	m	80		
	<b>EAVES, VERGES, ETC</b>	<b>H3</b>			
	<b>Everite FC77 pressed fibre-cement</b>	<b>H4</b>			
	3600 X 10 X 225mm Fascia boards bolted to Sub- fascia fixed to rafter to specialist specification including gavanized steel H-profile jointing strips	m	34		
	<b>DOORS, ETC</b>	<b>H3</b>			
	<b>40mm Thick solid flush laminated doors with commercial veneer for painting both sides and hardwood edge-strips, the doors hung to swing in pressed steel frames (frames elsewhere measured)</b>	<b>H4</b>			
	<b>Doors finished off with Polyurethane varnish to new interior wood. Sand with abrasive paper, leaving surface clean and dust free. Apply two coats of varnish (Eggshell finish) with an over coating time of 18 hours</b>				
	D01 - Door size overall 877 x 2390mm high	No	1		
	D02- Door size overall 813 x 2390mm high	No	1		
	D03 - Door size overall 1200 x 2390mm high	No	4		
	<b><u>FIRE RATED DOORS</u></b>				
	<b>18 Gauge A40 galvalneal door with interlocking edge seam with square hinge and bevelled lock edge, prime painted, fire rating 1H30 using a universal (ME) door frame( including frames)</b>				
	D01 -Double door for opening 875 x 2 000mm high fixed to brickwork or concrete	No	2		
	<b><u>NOTICEBOARDS, KEYBOARDS, DUCKBOARDS,ETC</u></b>				
	<b>Softboard</b>				
	12mm Pinning boards glued to plastered walls	m <sup>2</sup>	3		
	12mm thick non-porous, homogeneous natural minerals and pure acrylic polymer solid surfacing sheet, joined inconspicuously with matching adhesive and bonded to substrate with an approved silicone, fabricated and constructed by an approved fabricator in accordance with the drawings, all in accordance with the manufacturer's recommendations.	No	1		
<b>TOTAL SECTION 2.1.1 SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO. 7 - CARPENTRY AND JOINERY</b>					
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO.8</b>	<b>H2</b>			
	<b>CEILINGS, PARTITIONS AND ACCESS FLOORING</b>	<b>H2</b>			
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>SUPPLEMENTARY PREAMBLES</b>	<b>H2</b>			
	Fixing				
	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				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p>Ceilings</p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p>Bulkheads</p> <p>Unless otherwise described bulkheads shall be deemed to be horizontal along the length</p> <p>Steel components</p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><b>CEILING CONSTRUCTION, CORNICES, ETC.</b></p> <p><b>Aluminium shadow wall trim, fixed to plastered brickwork with 5 x 25mm wall anchors at 450mm centres.</b></p> <p>Wall trim</p> <p><b>Suspended ceiling</b></p> <p>Gedina Class A 12,5mm thick acoustic ceiling tiles installed using aluminium tees and ceiling grid as per the specialist details</p> <p>Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38mm x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening</p>				
	<b>TOTAL SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 8 - CEILINGS AND PARTITIONS</b>				
	<p><b>SECTION NO. 2.1.1</b></p> <p><b>BILL NO 9</b></p> <p><b>FLOOR COVERINGS</b></p> <p>NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill</p> <p>NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices</p> <p><b>SUPPLEMENTARY PREAMBLES</b></p> <p><b>Descriptions</b></p> <p>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</p> <p><b>VINYL TILES</b></p> <p>Slab luxury Vinyl tiles size 500 x 500mm commercial, vinyl tiles with dry back, stuck down with tile adhesive on min. 30mm screed, all to be cleaned with water as work proceeds, all in accordance with the manufacturer's recommendations. Colour to be sand.</p> <p>Slab luxury vinyl</p> <p><b>Skirting</b></p>	<p><b>H1</b></p> <p><b>H2</b></p> <p><b>H2</b></p> <p><b>H2</b></p> <p><b>H2</b></p> <p><b>H4</b></p>			
		m	48		
		m2	136		
		No	2		
		m2	147		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	90 x 16mm 2.4m Chamfer Meranti Skirting, skirting finished off with Polyurethane varnish to new interior wood. Sand with abrasive paper, leaving the surface clean and dust free. Apply two coats of varnish (Eggshell finish) with an over coating time of 18 hours	m	80		
<b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 9 - FLOOR COVERING</b>					
<b>SECTION NO. 2.1.1</b>		<b>H1</b>			
<b>BILL NO 10</b>		<b>H2</b>			
<b>IRONMONGERY</b>		<b>H2</b>			
NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill					
NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices					
<b>SUPPLEMENTARY PREAMBLES</b>		<b>H2</b>			
Descriptions					
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs					
Finishes to ironmongery					
Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list:					
BS Satin bronze lacquered CH Chromium plated					
SC Satin chromium plated					
SE Silver enamelled					
GE Grey enamelled					
AS Anodised silver					
AB Anodised bronze					
AG Anodised gold					
ABL Anodised black					
PB Polished brass					
PL Polished and lacquered					
PT Epoxy coated					
SD Sanded					
<b>100% PFX Stain Shield Staple Fibre with Meranti Frame all around</b>		<b>H4</b>			
White boards 2400 x 1200mm high fixed to brickwork		No	2		
<b>LETTERS, NAMEPLATES, ETC</b>		<b>H3</b>			
<b>"Union"</b>		<b>H4</b>			
<b>"Block (A)"</b> engraved grade 304 Stainless Steel sign, size 2000 x 350 x 500mm with counter-sunk fixing holes plugged and screwed with aluminium screws.		No	1		
<b>"Female"</b> engraved grade 304 Stainless Steel sign, size 150 x 150 x 1,2mm with counter-sunk fixing holes plugged and screwed with aluminium screws.		No	2		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	"Male" engraved grade 304 Stainless Steel sign, size 150 x 150 x 1,2mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	2		
	"Paraplegic" engraved grade 304 Stainless Steel sign, size 150 x 150 x 1,2mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	2		
	"Toilets" engraved grade 304 Stainless Steel sign, size 150 x 150 x 200mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	2		
	"No Smoking" engraved grade 304 Stainless Steel sign, size 150 x 150 x 200mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	2		
	"Classroom numbers" engraved grade 304 Stainless Steel sign, size 150 x 150 x 200mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	2		
	"No open" engraved grade 304 Stainless Steel sign, size 150 x 150 x 200mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	2		
	"No authorised person" engraved grade 304 Stainless Steel sign, size 150 x 150 x 200mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	2		
	"No littering" engraved grade 304 Stainless Steel sign, size 150 x 150 x 200mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	5		
	<b>LOCKS AND HANDLES</b>				
	<b>Handles and hinges</b>				
	Handle on 150 x 45mm pressed backplate with Anodised Silver finish including Euro Profile cylinder upright lock case and 66mm Euro Profile double cylinder. Two ball bearing butt	No	3		
	Handle on 152 x 76mm backplate with Anodised Silver finish including mortice latch. Two ball bearing butt hinge with Stainless Steel finish. <b>(Ablutions internal doors).</b>	No	3		
	<b>Doorstop</b>				
	Aluminium doorstop with Anodised Silver finish	No	6		
	<b>Door closer</b>				
	Medium duty cam action overhead door closer with slide channel and hold open and necessary mounting brackets, etc.	No	2		
	<b>Indicator bolts</b>				
	Aluminium indicator bolts with Anodised Silver finish.	No	6		
	<b>Indicator bolts (Paraplegic)</b>				
	Aluminium helping hand disabled facility indicator bolt with Anodised Silver finish.	No	2		
<b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 10 - IRONMONGERY</b>					
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO 11</b>	<b>H2</b>			
	<b>STRUCTURAL STEELWORK</b>	<b>H2</b>			
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices	<b>H3</b>			
	<b>SUPPLEMENTARY PREAMBLES</b>				
	<b>Descriptions</b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	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 expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
	<b>STEEL COLUMNS AND BEAMS</b>	<b>H3</b>			
	<b>GALVANISED STEEL COLUMNS AND BEAMS</b>	<b>H3</b>			
	Welded beams in single lengths with flat section bearer and connection plates bolted to concrete columns				
	254 X 254 X 73 kg/m H-Section columns	t	2,5		
	<b>PURLINS, GIRTS, BRACING ETC</b>	<b>H2</b>			
	<b>Bolts to columns, beams etc.</b>	<b>H4</b>			
	400 x 400 mm base plate	No	12		
	M24 x 260 x 100mm Chemical expansion bolt	No	8		
<b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 11 - STRUCTURAL STEELWORK</b>					
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO 12</b>	<b>H2</b>			
	<b>METALWORK</b>	<b>H2</b>			
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>SUPPLEMENTARY PREAMBLES</b>	<b>H3</b>			
	<b>Descriptions</b>				
	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				
	<b>Drawings</b>				
	Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc				
	<b>ALUMINIUM DOORS, WINDOWS ETC.</b>	<b>H3</b>			
	Aluminium window frame with 6.3mm safety glass branded SABS approved to comply as SANS 10400 part N				
	600 x 1800mm aluminium top-hung window	No	4		
	900 x 1800mm aluminium top-hung window	No	4		
	1800 x 600mm aluminium top-hung window	No	2		
	<b>STEEL DOOR FRAMES</b>	<b>H3</b>			
	813mm x 2043mm steel door frame for double door	No	2		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>STEEL HANDRAILS</b>	<b>H3</b>			
	<b>GALVANISED STEEL HANDRAILS</b>	<b>H3</b>			
	<u>Welded handrails to stair walls</u>				
	Stainless Steel Handrail Railing 1200mm high	m	5		
<b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 12 - METAL WORK</b>					
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO 13</b>	<b>H2</b>			
	<b>PLASTERING</b>	<b>H2</b>			
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>SUPPLEMENTARY PREAMBLES</b>	<b>H3</b>			
	<b>INTERNAL PLASTER</b>	<b>H3</b>			
	<b>Cement plaster on brickwork</b>	<b>H4</b>			
	On walls	m2	744		
	<b>INTERNAL SCREEDS</b>	<b>H3</b>			
	15mm Thick screed to a minimum of 25N/mm2, free from laitence, dust and other contamination, dry to 73,3% RH in accordance with BS8204, finished with a trowel to a smooth and even surface on concrete, to receive specialist epoxy (epoxy elsewhere measured)				
	On floors	m2	128		
<b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 13 - PLASTERING</b>					
	<b>SECTION NO. 2.1.1</b>				
	<b>BILL NO 14</b>	<b>H2</b>			
	<b>TILING</b>				
	Descriptions and preambles in other trades and bills in other sections of the works. If necessary, reference shall be made to other trades and preambles in other sections of the works for full preambles and full descriptions of items which might not be fully described in this bill, but which shall apply equally to the works in this bill, unless otherwise described.				
	NOTE: Tenderers are advised to study the General Preambles for Trades before pricing this Bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to be a fixed price for the duration of this project -----				
	<b>SUPPLEMENTARY PREAMBLES</b>				
	<b>Patterns</b>				
	Unless otherwise described, tiles shall be laid with continuous joints in both directions				
	<b>Fixing</b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>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</p> <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 from the "Tal Professional" range of products as recommended by the manufacturer of the tiles</p> <p><b><u>WALL TILING</u></b></p> <p><b>300 x 300mm non-slip porcelain tiles (PC 350/m2) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted grout</b></p> <p>On walls</p> <p>On narrow widths not exceeding 300mm</p> <p>Fair exposed cutting and fitting around pipe not exceeding 100mm external diameter</p> <p><b><u>CORNER PROTECTORS AND EXPANSION JOINTS</u></b></p> <p>M-trim (code ASQE 100), or equal approved, brushed stainless steel square edge-trim.</p>	m <sup>2</sup>	120		
		m <sup>2</sup>	30		
		No	20		
		m	37		
<b>Sub-Total SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS- Bill No.14 - Tiling</b>					
	<p><b>SECTION NO. 2.1.1</b></p> <p><b>BILL NO 15</b></p> <p><b>PAINTWORK</b></p> <p>NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill</p> <p>NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices</p> <p><b>SUPPLEMENTARY PREAMBLES</b></p> <p><b>ON INTERNAL FLOATED PLASTER SURFACES</b></p> <p>Low sheen acrylic emulsion 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 Professional Plaster Primer (PP700) with an overcoating time of 16 hours and finish with two coats Velvagio Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 10 years in a C1 - inland environment. Colour to be specified later.</p> <p>On plastered walls</p> <p><b>ON SMOOTH CONCRETE SURFACES</b></p> <p>One coat bonding liquid, one coat alkali resistant primer and two coats PVA emulsion paint for interior use, including stopping blow holes</p> <p>One coat bonding liquid, one coat primer and two coats superior quality acrylic emulsion paint for interior and exterior use, including stopping blow holes</p> <p>Skimmed Ceilings</p> <p><b>ON FIBRE-CEMENT</b></p> <p><b>Two coats professional acrylic polyvinyl acetate (PVA) to manufacturer's specification</b></p> <p>On fascias and barge boards</p>	H1			
		H2			
		H2			
		H3			
		H3			
		m2	744		
		H3			
		m2	128		
		H3			
		H4			
		m2	10		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>ON METAL</b>	<b>H3</b>			
	Plascon Plascothane Polyurethane Enamel to interior new mild steel. Surface to be clean and dry. Remove surface contaminants using Metalcare Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3 of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat Plascoguard 75 Zinc Phosphate Epoxy Primer (PEX75/PEH75) with an overcoating time of 4 hours and finish with two coats Plascothane Polyurethane Enamel (UP 1) with 30 minutes drying time between coats, for a maintenance cycle of 8 years in a C1 - inland environment. Colour to be specified later.				
	On outside of eaves gutters and rainwater pipes before fixing not exceeding 300mm high	m	71		
	Steel door frame	m2	15		
	<b>ON WOOD SURFACES</b>	<b>H3</b>			
	Polyurethane varnish to new interior wood. Sand with abrasive paper, leaving surface clean and dust free. Apply two coats varnish (Eggshell finish) with an overcoating time of 18 hours.				
	Doors	m2	15		
<b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 15 - PAINTWORK</b>					
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO 16</b>	<b>H2</b>			
	<b>PLUMBING AND DRAINAGE</b>	<b>H2</b>			
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>SUPPLEMENTARY PREAMBLES</b>	<b>H3</b>			
	<b>"Polycop" polypropylene pipes:</b>	<b>H3</b>			
	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				
	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 instructions				
	<b>All pipe diameters are nominal external</b>				
	<b>"Polylink" polypropylene pipes:</b>				
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints				
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured				
	Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers				
	Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers				



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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same</p> <p>All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><b>Concrete pipes:</b></p> <p>Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings</p> <p><b>Vitrified clay pipes:</b></p> <p>Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid</p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p><b>uPVC pipes and fittings:</b></p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p> <p>uPVC pressure pipes and fittings:</p> <p>Pipes for water supply shall be of the class stated</p> <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><b>Copper pipes:</b></p> <p>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</p> <p><b>Fixing of pipes</b></p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p>Lead pipes and fittings</p> <p>All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel</p> <p>Reducing fittings</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</p>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>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>Wire gratings</p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p>Septic tanks</p> <p>Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions</p> <p>Exposed concrete surfaces</p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster</p> <p>Excavations</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>Laying, backfilling, bedding, etc. of pipes</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:</p> <p>SABS 1200 L : Medium-pressure pipelines</p> <p>LD : Sewers</p> <p>LE : Stormwater drainage</p> <p>Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200</p> <p>DB : Earthworks (Pipe trenches)</p> <p>Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200</p> <p>LB : Bedding (Pipes).</p> <p>Unless otherwise described bedding of rigid pipes shall be class B bedding</p> <p>Flush pans</p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p> <p>Stainless steelbasins, sinks, wash troughs, urinals, etc.</p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p>Waste unions</p>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings				
	Steel sectional water tanks				
	Tanks shall comply with SABS CKS 114				
	"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.				
	Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described				
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc				
	<b>SANITARY FITTINGS</b>	<b>H3</b>			
	Low level pan colour white, 100mm outlet with cistern connected to 15mm water supply with foot of bowl sealed to floor with acetoxysilicon sealant. Flush valve to be 20mm BSP, exposed, lever operated, chrome toilet flushing valve with back entry flush pipe.	No	2		
	60cm urinal colour white, with back or top inlet and waste outlet including wall mounting brackets and connected to water supply, sealed with silicon sealant where urinal meets the wall.	No	2		
	12mm compact high pressure laminate urinal screen colour Pastel Grey, overall size 450 x 750mm fixed to wall with 304 grade stainless steel brackets.	No	2		
	Deck mounted basin pillar tap, overall size 15mm length x 94mm height, installed in accordance with the manufacturer's recommendations.	No	2		
	Electric hand dryer, colour white. Power 550W, 20 000RPM. Drying time - 5 to 10 seconds	No	2		
	Soap and sanitiser dispenser - Cassette 1L colour white, overall size 235 x 116 x 114mm high	No	2		
	Dog Leg grab rail colour Silver fixed to walls with fixation bolts.	No	2		
	White 2-roll toilet roll holder, overall size 130 x 130 x 260mm plugged and screw to wall with stainless steel screws.	No	2		
	50cm basin with semi pedestal colour White, fixed with stainless steel screws and washers to plugs in wall and sealed with acetoxysilicone sealant where basin meets wall.	No	2		
	Undercounter wash basin colour white, fixed with 3 fixation brackets, and sealed with acetoxysilicone sealant fixed to undercounter. 560mm (L) x 420mm (W) x 210mm (Depth)	No	2		
	Deck mounted basin mixer, overall size 136.93 x 43.38 x 123.74mm, installed in accordance with the manufacturer's recommendations.	No	2		
	Plastic / medium size colour white. Dimensions: 56.9cm (L) x 42.2cm (W) x 28.7cm (D)	No	2		
	Vaal Pear Paraplegic semi close couple 90" outlet open with rim washdown pan and matching 9 litre cistern complete with lid. Fitments and purpose made c.p. side flush lever (left or right) Supplied with purpose made urea seat and cover plate.	No	1		
	Railman grab rails (Ref:SR2) and dogleg rail with 2 flanges( Ref:DL2). All grab bars shall be constructed of 304 high quality stainless steel or other suitable non-corrosive metal tube with an outside diameter of 32mm, that can be easily cleaned . the correct back grab bar must be selected for the external cisterns, flush valve system or under wall cisterns. the back and side grab-rail may be an integral unit. the cranked grab bar must be installed in the	No	2		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	correct orientation as shown on the respectable elevation. grab bars must be fixed to the wall  such that they can support a vertical force of 1kilo newton at any point on the grab bar.				
	Isolating ball valves - 1/2 inch fullway isolating ball valve suitable for hot and cold water (code 1090-15) cobra or equal for basin isolation	No	2		
	Isolating ball valves - 1/2 inch fullway isolating ball valve suitable for urinal and wc isolation (code 1090-20) cobra or equal positioned in plumbing duct	No	5		
	Rolled hand towel dispenser colour white overall size 236 x 430 x 241mm high	No	2		
	Raised paraplegic CC WC with side lever and grab rails combo colour White 100mm outlet with cistern connected to 15mm water supply with foot of bowl sealed to floor with acetoxyl silicone sealant.	No	1		
	50cm Medical basin with brackets colour white fixed with stainless steel screws and washers to plugs in wall with optional concealed wall brackets sealed with acetoxyl silicone sealant where basin meets wall	No	2		
	Chrome finish Medical pillar tap with blue/red indices deck mounted basin mixer, overall size 63mm(L) x 41mm(W) x 79mm(H)	No	1		
	Elbow operated soap dispenser frame. High-grade stainless-steel satin finish. Dimensions 295mm (L) x 70mm (W) x 290mm (H).	No	1		
	Sanitary bin, 12L pedal-operated. Dimensions: 46.3 (L) x 14 (W) x 48cm (D)	No	1		
	<b>WET SERVICES</b>	<b>H2</b>			
	Note 1: In all instances Rates tendered shall separate supply/delivery and installation of the relevant item. Commissioning and testing are covered separately.				
	<b>Note 2:</b> Quantities reflected in these Bills are for tendering purposes. Contractors must order equipment based on site requirements.				
	<b>PAINTING</b>				
	Painting of the air-conditioning installation as per the Standard Specifications (Wet Services).	Item	1		
	<b>AS -BUILT DRAWINGS</b>				
	The contractor shall make provision for a detailed set of as fitted layout drawings of the entire installation, as the project progresses. Refer to standard detailed specification regarding project drawings.	Item	1		
	<b>PRESSURE TESTING</b>				
	The Contractor shall make provision to pressure test the installation during construction - See Standard specification.	Item	1		
	<b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO. 16 - PLUMBING AND DRAINAGE</b>				
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO. 17</b>	<b>H2</b>			
	<b>ELECTRICAL WORK</b>	<b>H3</b>			
	NOTE: Tenderers are required to study the Model Preambles for Trades and the Project Specification before pricing the bills of quantities. -----				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>LOW VOLTAGE DISTRIBUTION</b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>Distribution Boards</b> <i>Electrical distribution switchboards as specified and as per the single line diagrams complete with pad lockable doors, frames, sub-frames, chassis, fixtures, fittings, with spare space, including all switching equipment.</i> (a) DB - Main Weather proof - as per SLD to be issued (d) DB Plinth (e) Administer Municipal connection of 100 KVA	each each each	1 1 1		
	<b>Circuit Breakers</b> <i>Circuit breakers to be Schneider, ABB, CBI or Hager</i> (a) new 200A CB 25KA, inside minisub	each	1		
	<b>Low Voltage Cables From Main DB's to Shops</b> <i>600/1000V grade stranded conductor cables installed on cable trays, in sleeves or trenching. Trenching, sleeves and wire ways are measured elsewhere. Terminations of conductors are also measured elsewhere.</i> 2x 95mm2 PVC/SWA/PVC/PVC 4 Core CU- Transformer to the main Kiosk	meters	16		
	<b>Low Voltage Cable Terminations</b> <i>Cable terminations complete glands, shrouds, lugs, connections and commissioning.</i> 95mm2 PVC/SWA/PVC/PVC 4 Core CU	each	1		
	<b>Bare Stranded Copper Earth Wire</b> <i>Bare stranded copper earth wire strapped to cables, terminations are measured elsewhere.</i>  50mm2 CU	meters	16		
	<b>Bare Stranded Copper Earth Wire Terminations</b> <i>Stranded copper earth wire terminations for insulated/bare conductor complete, including drilling, bolting, lugs, connections and terminating.</i> 50mm2 CU	each	1		
	<b>Cable Markers</b> <i>Provide and install danger tape. 300mm above the cable</i> (a) Cable markers- To be installed above cables in trenches	m	16		
	<b>Cable Trenches</b> Excavate for cable and sleeve trench including temporary support of sides, keeping excavations dry, backfilling and compacting to the engineers specification including bedding under and filling around cable comprising sifted sand (a) Soil- New Trenches to and from Mini-sub to main kiosk (b) Soil- New Trenches to and from Main kiosk to generator and back to main kiosk (c) Hard Rock - New Trenches to and from Mini-sub, generator, and new DB	m3 m3 m3	7,2 7,2 4		
	<b>Testing and Commissioning</b> (a) Testing and commissioning of complete LV system	Lot	1		
<b>Subtotal - Skills Development Centre - Bill No. 17.0 - Reticulation</b>					
	<b>BILL NO. 17.1</b>	<b>H1</b>			
	<b><u>EXTERNAL CLASSROOMS BLOCK</u></b>	<b>H1</b>			
	<b>LOW VOLTAGE DISTRIBUTION</b>	<b>H1</b>			
	<b>Distribution Boards</b> <i>Electrical distribution switchboards as specified and as per the single line diagrams complete with pad lockable doors, frames, sub-frames, chassis, fixtures, fittings, with spare space, including all switching equipment.</i> (a) DB Main (DB - A1)	each	1		
	<b>Low Voltage Cables From Main Supply to DB Main (DB - A1)</b> <i>600/1000V grade stranded conductor cables installed on cable trays, in sleeves or trenching. Trenching, sleeves and wire ways are measured elsewhere. Terminations of conductors are also measured elsewhere.</i> 70mm2 PVC/SWA/PVC/PVC 4 Core CU-175A CB	meters	12		
	<b>Low Voltage Cable Terminations</b> <i>Cable terminations complete glands, shrouds, lugs, connections and commissioning.</i> 70mm2 PVC/SWA/PVC/PVC 4 Core CU	Each	1		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>Low Voltage Cable Joints</b>				
	<b>Low Voltage Cable Joints</b> <i>Cable terminations complete glands, shrouds, lugs, connections and commissioning.</i> 70mm <sup>2</sup> PVC/SWA/PVC/PVC 4 Core CU	Each	1		
	<b>Bare Stranded Copper Earth Wire</b> <i>Bare stranded copper earth wire strapped to cables, terminations are measured elsewhere.</i>  35mm <sup>2</sup> CU	meters	12		
	<b>Bare Stranded Copper Earth Wire Terminations</b> <i>Stranded copper earth wire terminations for insulated/bare conductor complete, including drilling, bolting, lugs, connections and terminating.</i> 35mm <sup>2</sup> CU	Each	0,16		
<b>Subtotal - Bill No.17.1 - Skills Development Centre 17.1 - Low Voltage distribution</b>					
	<b>BILL NO.17.2</b>	H1			
	<b>LIGHTING INSTALLATION</b>	H1			
	<b>WIREWAYS</b> Supply and Install Trunking (a) Supply and install P8000 trunking suspended from slab and trusses in ceiling void.	Meter	12		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc. (a) 20mm diameter	Meter	24		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted (a) 100 x 50 x 50 mm, c/w applicable cover	No	2,08		
	(b) 65mm round box, c/w cover	No	9,6		
	<b>ACCESSORIES</b>  Supply, deliver and install accessories to boxes (a) 5A, 3-pin socket outlets to trunking (b) 16A, one lever one way switch (c) 16A, one lever two way switch (d) 16A, two lever one way switch	No No No No	5,36 1,36 1 1		
	1,5mm <sup>2</sup> bare copper earth wire	Meter	12		
	2.5mm <sup>2</sup> PVC insulated conductor	Meter	24		
	<b>LIGHT FITTINGS</b>  Internal Lights  Supply, deliver, install, connect, test and commissioning the following light fittings TYPE D1 - 230V, Luxon Round Pro 160 Down lighter Recessed light fitting installed with 20W LED and 4000K CRI 80 250mA Non-dimmable controller	No	2,08		
	TYPE C1 – 230V,103mm diameter ceiling recessed, Die cast aluminium body light fitting with white acrylic lens installed with 8W LED lamps, warm white.	No	4,4		
	1TYPE F10 – 600X1200mm ceiling recessed luxon prism backlit panel light fitting with seamless aluminium extruded frame and prismatic diffuser installed with 35W LEDs.	No	4,56		
	TYPE D3 - Regent 230V, Luxon Round Pro 160 Down lighter Recessed light fitting installed with 15W LED and 4000K CRI 80 250mA Non-dimmable controller.	No	2,08		
	TYPE W2 - tower pedant led light fitting with extruded powder coated aluminium body and UV stabilized satin acrylic diffuser, installed with 35w LEDs	No	1		
	<b>External Lights</b>  TYPE W2 - Wall mounted bulkhead light fitting with die-cast aluminium body and glass lens fitted with 1x60w lamp or SIMMILAR APPROVED	No	1,44		

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>Subtotal - Bill No.17.2 - Skills Development Centre 17.2 - Lighting Installation</b>				
	<b>BILL NO.17.3</b>	<b>H1</b>			
	<b>SMALL POWER INSTALATION</b>	<b>H1</b>			
	<b>WIREWAYS</b>				
	<i>Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.</i>				
	20mm diameter	Meter	24		
	<i>Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover</i>				
	100 x 100 x 50 mm	No	5,36		
	<i>Supply, deliver and installation of the 2 compartment, two cover Midland power skirting complete with all accessories including internal/external bends, end caps etc.</i>				
	as per first and ground floor drawings	Meter	16,8		
	Supply and installation of power skirting accessories				
	Blank cover plate suitable for RJ 11 telephone outlet	No	4		
	Blank cover plate suitable for RJ 49 data outlet	No	3,2		
	<i>Supply, delivery and installation of socket outlets</i>				
	16 A, 3-pin standard white SSO + 16 A, 3-pin Euro Scket (SANS 164-2)				
	Flush Mounted	No			
	Power skirting mounted	No	4,4		
	16 A, 3-pin double white SSO + 16 A, 3-pin Euro Scket (SANS 164-2)				
	Flush Mounted	No	2		
	16 A, 3-pin dedicated red SSO				
	Flush Mounted	No			
	Power skirting mounted	No	1,36		
	<b>HVAC POWER</b>				
	20A double isolators	No	2,8		
	25A triple pole	No	0,24		
	<b>WIRING AND TERMINALS</b>				
	Supply, Deliver and installation of Cu Conductors:				
	2.5mm <sup>2</sup> PVC insulated conductor				
	Supply and delivery	Meter	120		
	Installation	Meter	120		
	4mm <sup>2</sup> PVC insulated conductor				
	Supply, delivery and installation	Meter	72		
	4mm <sup>2</sup> 4 core Surfex (For HVAC)				
	Supply, delivery and installation	Meter	24		
	Installation				
	25mm <sup>2</sup> 4 core PVC SWA PVC Cacle (For HVAC)				
	Supply and delivery	Meter	7,2		
	Installation	Meter	7,2		
	<b>Subtotal - Bill No.17.3 - Skills Development Centre 17.3 - Small Power Installation</b>				
	<b>BILL NO.17.4</b>	<b>H1</b>			
	<b>ELECTRONICS &amp; SECURITY SYSTEM</b>				
	<b>WIREWAYS</b>				
	<i>Supply, delivery and installation of PVC conduit, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.</i>				
	32mm diameter	Meter	7,2		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	25mm diameter	Meter	7,2		
	<i>Supply, installation and delivery of P2000 trunking in ceiling void</i>				
	Supply, delivery and Installation	Meter	6,4		
	<i>Supply, delivery and installation of Conduit outlets boxes</i>				
	50mm Round box	No	1,2		
	100 x 100 x 50 mm	No	1,2		
	<b>CCTV SYSTEM</b>				
	<i>Supply, Deliver, test, install and commission of CCTV system c/w system softwares and accessories as per drawings and tender specification</i>				
	Supply and Deliver	Sum	1		
	Installation	Sum	1		
	<b>FIRE DETECTION SYSTEM</b>				
	<i>Supply, Deliver, test, install and commission fire detection system as per drawings and tender specification</i>				
	Supply and Deliver	Sum	1		
	Installation	Sum	1		
	<b>Subtotal - Bill No.17.4 - Skills Development Centre 17.4 - Electronics &amp; Security system</b>				
	<b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 17 - ELECTRICAL WORKS</b>				
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO 18</b>	<b>H2</b>			
	<b><u>MECHANICAL WORK - HVAC SYSTEM</u></b>				
	NOTE: Tenderers are required to study the Model Preambles for Trades and the Project Specification before pricing the bills of quantities. -----				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>Mechanical Installation</b>				
	Mechanical work including, wet services, HVAC services, fire services and sundry services.	Item			
	<b>Note 1:</b> In all instances Rates tendered shall separate supply/delivery and installation of the relevant item. Commissioning and testing are covered separately.				
	<b>Note 2:</b> Quantities reflected in these Bills are for tendering purposes. Contractors must order equipment based on site requirements.				
	<b>HVAC SYSTEM</b>				
	<b>Outdoor VRV condensing unit complete with all fans, compressors, mode control units, refrigeration circuitry, piping connections, anti-vibration mountings, supports, cabling, sensors, safeties and controls.</b>				
	AM100FXVAGR/EU - 31.5 kW Cooling, 31.5 kW Heating	No.	1,00		
	<b>VRV mode control unit (MCU) complete with high pressure and low pressure piping</b>				
	MCU - S2NEK2N 2 Port MCU Kit	No.	1,00		
	MCU - S4NEK3N 4 Port MCU Kit	No.	1,00		
	<b>Control system for VRV condensing units, mode control unit, indoor split VRV units and</b>				
	Central control system per wing	No.	1,00		
	Wireless remote controller	No.	1,00		



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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Motion detect sensor	No.	1,00		
	<b>Electrical reticulation for HVAC system complete from HVAC control panel in plant area</b>				
	Electrical installation to HVAC system	No.	1,00		
	<b>4way Cassette Wind-free VRV Type Split Air-Conditioning Indoor Units</b>				
	<b>Unit consisting of evaporator, installed in suspended ceiling complete including integral</b>				
	2.2kW Total Cooling, 2.5kW Total Heating (CAS1)	No.	1,00		
	4.5kW Total Cooling, 5.0kW Total Heating (CAS2)	No.	1		
	5.6kW Total Cooling, 6.3kW Total Heating (CAS3)	No.	1,00		
	<b>Mid-Wall Wind-free VRV Type Split Air-Conditioning Indoor Units</b>				
	<b>Unit consisting of evaporator, installed in suspended ceiling complete including integral</b>				
	2.2kW Total Cooling, 2.5kW Total Heating (CAS1)	No.	1,00		
	<b>Y - joint for refrigeration piping between VRV outdoor units, mode control and indoor</b>				
	MXJ-YA2500M over 22,4 - 70,3kW and below	No.	4		
	MXJ-YA3800M Over 135.Kw	No.	1		
	<b>PIPING</b>				
	installed on cable tray (measured elsewhere) complete with insulation and cladding on high				
	6.35mm diameter refrigerant copper pipe	m	10		
	9.52mm diameter refrigerant copper pipe	m	4		
	12.7mm diameter refrigerant copper pipe	m	10		
	22.22mm diameter refrigerant copper pipe	m	3		
	units, installed on cable tray (measured elsewhere) complete with insulation on both				
	12,7mm diameter	No.	0		
	15.88mm diameter	No.	0		
	Indoor units panel as per specification.				
	PC4NUFMAN - Wind-Free Panel 4Way	No.	1		
	<b>INVERTER HEAT PUMPS</b>				
	Ceiling Cassette Split Inverter Type Air-Conditioning indoor Units				
	pump, drain connection to point in ceiling above evaporator unit, moulded pipe cover				
	pump, drain connection to point in ceiling above evaporator unit, moulded pipe cover				
	excluded - measured elsewhere.				
	5.2 kW Total Cooling, 5.8 kW Total Heating unit. (UC1)	No.	1		
	Mid-Wall Split Inverter Type Air-Conditioning indoor Units				

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	pump, drain connection to point in ceiling above evaporator unit, moulded pipe cover				
	2.5 kW Total Cooling, 2.6 kW Total Heating unit. (UC1)	No.	4		
	<b>PIPING, CABLING FOR SPLIT PACKAGED HEAT PUMP AIR-CONDITIONING UNITS</b>				
	on cable tray (measured elsewhere) complete with insulation on both suction and liquid external walls.				
	305mm wide tray	m	2		
	155mm wide tray	m	2		
	76mm wide tray	m	15		
	Extra over cable rack for vertical or horizontal fitting (Bend, T-piece)				
	76mm wide fitting	No.	15		
	structure and external walls.				
	350mm wide trunking	m	3		
	Extra over cable tray for vertical or horizontal fitting (Bend, T-piece)				
	350mm wide fitting	No.	3		
	Interconnecting cabling				
	cable trays supporting refrigerant piping.	m	12		
	PVC condensate piping surface run on external walls				
	32mm diameter pipe	m	7		
	25mm diameter pipe	m	6		
	Extra over for PVC pipe fittings (bends, tees, connections).				
	32mm diameter fittings	No.	9		
	25mm diameter fittings	No.	4		
	<b>FANS</b>				
	vibration mountings from the structure, connections to, and including two attenuators per complete				
	150mm dia, 0,111m <sup>3</sup> /s at 185Pa - SAF1	No.	1		
	355mm dia, 0,192m <sup>3</sup> /s at 150Pa - EAF1	No.	1		
	<b>ASSEMBLIES MEASURED ELSEWHERE</b>				
	spigot				
	200mm diameter (SDV200)	No.	2		
	250mm diameter (SDV250)	No.	1		
	Hand over to builder for installation in wall or beam or door opening				
	600mm wide x 400mm high weather louvre with wire mesh screen. (WL1)	No.	2		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>DUCTING</b>				
	Specification.				
	600 x 400mm	m	1,5		
	Transformation piece in uninsulated rectangular duct				
	400mm diameter to 800 x 400mm	No.	2		
	400mm diameter to 600 x 400mm	No.	1		
	355mm diameter to 500 x 350mm	No.	5,0		
	355mm diameter to 600 x 400mm	No.	1		
	Stop end in uninsulated rectangular duct				
	250mm diameter	No.	1		
	500 x 350mm	No.	2,0		
	350 x 200mm	No.	2,0		
	250 x 200mm	No.	1		
	including cut-in to parent duct				
	200mm diameter	No.	12		
	250mm diameter	No.	11		
	Uninsulated, fire rated flexible ducting				
	200mm diameter	m	10		
	250mm diameter	m	33		
	<b>PAINTING</b>				
	Painting of the air-conditioning installation as per the Standard Specifications.	Item	1		
	<b>WORKSHOP AND AS-BUILT DRAWINGS</b>				
	The contractor shall make provision for a detailed set of workshop and as-built layout drawings of the entire installation, as the project progresses. Refer to standard detailed specification regarding project drawings.	Item	1		
	<b>COMMISSING AND TESTING</b>				
	Commission and test the air conditioning and ventilation installation in accordance with Standard Specifications.	Item	1		
	<b>GUARANTEE</b>				
	12 months maintenance and guarantee on the installation as a whole in accordance with the Detailed Specifications.	Item	1		
<b>Subtotal - Bill No.16 - Skills Development Centre 16 - HVAC</b>					
	<b>FIRE PROTECTION</b>				
	relevant item. Commissioning and testing are covered separately.				
	order equipment based on site requirements.				
	<b>and signage complete with fixtures, fittings, connections and accessories.</b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>PIPING</b>				
	<b>uPVC Class 16 pressure pipes with butt welded joints</b>				
	75mm Pipes laid in and including excavation not exceeding 1m deep	m	50		
	110mm Pipes laid in and including excavation not exceeding 1m deep	m	120		
	<b>Extra over uPVC Class 16 pressure pipes with couple on joints</b>				
	75mm Fitting	No	27		
	110mm Pipes	No	71		
	<b>Galvanised Mild Steel pressure pipes</b>				
	25mm Pipes	m	110		
	50mm Pipes	m	40		
	75mm Pipes	m	20		
	<b>Extra over Galvanised Mild Steel pressure pipes</b>				
	25mm Fitting	No	18		
	50mm Fitting	No	12		
	75mm Fitting	No	7		
	<b>FIRE EQUIPMENT</b>				
	ABC and Dry Chemical Powder, 4,5kg, mounted inside cabinet.	No	8		
	ABC and CO2, 5.0 kg, mounted inside cabinet.	No	2		
	Fire hose reel inside steel cabinet, 30m hose at discharge rate of 0,5l/s @400kPa	No	4		
	Fire Signage with electrical power, size 190 x 190mm	No	3		
	Fire Equipment Signage laminated to glow in the dark, size 190 x 190mm	No	36		
	<b>PAINTING</b>				
	Protection).	Item	1		
	<b>AS-BUILT DRAWINGS</b>				
	The contractor shall make provision for a detailed set of as fitted layout drawings of the entire installation, as the project progresses. Refer to standard detailed specification regarding project drawings.	Item	1		
	<b>PRESSURE TESTING</b>				
	The Contractor shall make provision to pressure test the installation during construction - See Standard specification.	Item	1		
	<b>Subtotal - Bill No.16 - Skills Development Centre 16 - Fire protection</b>				
	<b>WET SERVICES (PROVISIONAL)</b>				
	Note 1: In all instances Rates tendered shall separate supply/delivery and installation of the relevant item. Commissioning and testing are covered separately.				
	Note 2: Quantities reflected in these Bills are for tendering purposes. Contractors must order equipment based on site requirements.				
	<b>HOT WATER GENERATION</b>				

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Supply, delivery, installation, commissioning and testing of the hot water generation system with storage complete with fixtures, fittings, connections and accessories.				
	expansion tanks without backup elements.	No	2		
	150l electrical geyser with 2kW electrical element, provided with thermal insulation.	No	2		
	10L Vertical mounted hydroboil unit above sink including all accessories complete	No	1		
	<b>DOMESTIC WATER</b>				
	lengths fixed to/in walls, in ceilings, against soffits for Cold and Hot Water, insulated.				
	15mm Pipes	m	68		
	22mm Pipes	m	30		
	28mm Pipes	m	20		
	35mm Pipes	m	15		
	15mm Pipe in and including chase in brickwork	m	30		
	22mm Pipe in and including chase in brickwork	m	10		
	28mm Pipe in and including chase in brickwork	m	18		
	35mm Pipe in and including chase in brickwork	m	10		
	Extra over Class "2"hard drawn type copper tubing for fittings, insulated.				
	Common fittings (elbows, tees, reducers, crossovers, etc)				
	15mm Fittings	No	24		
	22mm Fittings	No	15		
	28mm Fittings	No	3		
	35mm Fittings	No	6		
	Class 16 uPVC pressure pipes with joints and concrete on bends and fittings				
	50mm Pipes laid in ground in and including excavation not exceeding 1m deep	m	10		
	Extra over Class 16 uPVC pressure pipes with joints				
	50mm Fitting	No	3		
	<b>INTERNAL DRAINAGE</b>				
	uPVC soil and vent pipes				
	110mm Pipes	m	5		
	50mm Pipes	m	15		
	50mm Pipes chased into brickwork	m	12		
	50mm Pipes laid in ground in and including excavation not exceeding 1m deep	m	11		
	110mm Pipes laid in ground in and including excavation not exceeding 1m deep	m	16		
	<b>uPVC Fittings</b>				
	110mm Fittings	No	108		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	50mm Bend	No	45		
	50mm Access bend	No	4		
	50mm Junction	No	4		
	Concrete gully fitted with accessories				
	110mm gully with grid	No	1		
	Concrete rodding eye fitted with cover				
	110mm rodding eye with cover	No	1		
	<b>PAINTING</b>				
	Painting of the air-conditioning installation as per the Standard Specifications (Wet Services).	Item	1		
	<b>AS -BUILT DRAWINGS</b>				
	The contractor shall make provision for a detailed set of as fitted layout drawings of the entire installation, as the project progresses. Refer to standard detailed specification regarding project drawings.	Item	1		
	<b>PRESSURE TESTING</b>				
	The Contractor shall make provision to pressure test the installation during construction - See Standard specification.	Item	1		
	<b>Subtotal - Bill No.16 - Skills Development Centre 16 - Wet Services</b>				
	<b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO. 18 - MECHANICAL WORKS</b>				
	<b>SECTION NO. 2.1.1</b>	<b>H1</b>			
	<b>BILL NO 19</b>	<b>H2</b>			
	<b>GLAZING</b>	<b>H3</b>			
	NOTE: Tenderers are advised to study the Model Preambles for Trades and Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to have fixed prices				
	<b>SUPPLEMENTARY PREAMBLES</b>	<b>H3</b>			
	<b>GLASS IN TOPS, SHELVES, DOORS, MIRRORS, ETC.</b>	<b>H3</b>			
	<b>5mm Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete</b>				
	450mm x 650mm Belveled edge mirror fixed to walls with mirror dome screws	No	2		
	450mm x 1200mm full height bevelled edge mirror fixed to walls with mirror dome screws	No	1		
	<b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 19 - GLAZING</b>				
	<b>SECTION NO.2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL WORKS</b>	<b>H1</b>			
	<b>BILL NO. 20</b>	<b>H2</b>			
	<b>EXTERNAL WORKS</b>	<b>H3</b>			

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p><b>SUPPLEMENTARY PREAMBLES</b></p> <p>NOTE: Tenderers are referred to the definition of general attendance on nominated sub-contractors given in Clause 9 of the Preliminaries</p> <p>THE FOLLOWING PROVISIONAL SUMS ARE FOR WORK TO BE EXECUTED BY SELECTED SUBCONTRACTORS</p> <p>The following Provisional Sums are for specialists work to be executed by a selected Sub-contractor who upon appointment in terms of the Conditions of Contract shall be deemed to be a Domestic Sub-Contractor to the Contractor</p> <p>A Selected Sub-Contractor shall be a Sub-contractor executing work for which a sum of money is provided for in the Bills of Quantities or a Sub-contractor executing additional specialist work which arises as a result of an instruction by the Principal Agent/Engineer</p> <p>Tender documents for such work shall be prepared by the Principal Agent/Engineer in consultation with and to the approval of the Contractor and such tender document shall be issued by the Principal Agent/Engineer to a list of tenderers agreed upon between the Principal Agent/Engineer and Contractor.</p> <p>Tenders shall be submitted to the Principal Agent/Engineer</p> <p>The Selected Sub-contractor shall be chosen by the Principal Agent/Engineer and the Contractor, and the Contractor shall satisfy himself that such selected sub-contractor can meet the requirements of the Sub-Contract agreement and the Contractor shall inform the Principal Agent/Engineer accordingly</p> <p>The procedure relating to the method of selection, obtaining of tenders, adjudication thereof and the appointment of the Selected Sub-contractor shall not create any contractual relationship between the Client and the Selected Sub-contractor</p> <p>NOTE: Under no circumstances may any Prime Cost - Provisional Amount, etc be extended at an amount higher than the amount given in the Bill</p> <p><b>BUDGETARY ALLOWANCE</b></p> <p>Allow a Budgetary amount of R 31 200. 00 (Thirty One Thousand and Two Hundred Thousand Rands Only) for external works complete as per Principal Agent's instruction and Engineers specifications</p>	H3			
	<p><b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 20 - EXTERNAL WORKS</b></p>	Item	1		
	<p><b>SECTION NO. 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS</b></p> <p><b>BILL NO. 21</b></p> <p><b>PROVISIONAL SUMS</b></p> <p>NOTE: Tenderers are referred to the definition of general attendance on nominated sub-contractors given in Clause 9 of the Preliminaries</p> <p>THE FOLLOWING PROVISIONAL SUMS ARE FOR WORK TO BE EXECUTED BY SELECTED SUBCONTRACTORS</p> <p>The following Provisional Sums are for specialists work to be executed by a selected Sub-contractor who upon appointment in terms of the Conditions of Contract shall be deemed to be a Domestic Sub-Contractor to the Contractor</p>	H1 H2 H3			

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>A Selected Sub-Contractor shall be a Sub-contractor executing work for which a sum of money is provided for in the Bills of Quantities or a Sub-contractor executing additional specialist work which arises as a result of an instruction by the Principal Agent/Engineer</p> <p>Tender documents for such work shall be prepared by the Principal Agent/Engineer in consultation with and to the approval of the Contractor and such tender document shall be issued by the Principal Agent/Engineer to a list of tenderers agreed upon between the Principal Agent/Engineer and Contractor.</p> <p>Tenders shall be submitted to the Principal Agent/Engineer</p> <p>The Selected Sub-contractor shall be chosen by the Principal Agent/Engineer and the Contractor, and the Contractor shall satisfy himself that such selected sub-contractor can meet the requirements of the Sub-Contract agreement and the Contractor shall inform the Principal Agent/Engineer accordingly</p> <p>The procedure relating to the method of selection, obtaining of tenders, adjudication thereof and the appointment of the Selected Sub-contractor shall not create any contractual relationship between the Client and the Selected Sub-contractor</p> <p>NOTE: Under no circumstances may any Prime Cost - Provisional Amount, etc be extended at an amount higher than the amount given in the Bill</p> <p><b>PROVISIONAL SUMS FOR NOMINATED/SELECTED SUBCONTRACT WORKS</b></p> <p><b>IT FIXED</b></p> <p>Allow an amount of R 25 000.00 (Twenty Five Thousands Rands Only) for the supply and installation of IT fixed as per Principal Agent's instruction.</p> <p>Profit</p> <p>Attendance</p>				
		<b>H3</b>			
		<b>H3</b>			
		Item	1		
		%	2%		
		%	2%		
<b>TOTAL - SECTION 2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS - BILL NO 21 - PROVISIONAL SUMS</b>					
<b>SUB - SUMMARY - EXTERNAL CLASSROOMS</b>					
1	Preliminaries - N/A				R -
2	Earthworks (provisional)				R -
3	Concrete, formwork and reinforcement				R -
4	Masonry				R -
5	Waterproofing				R -
6	Roof coverings, claddings, etc				R -
7	Carpentry and joinery				R -
8	Ceilings, partitions and access flooring				R -
9	Floor coverings, wall linings, etc				R -
10	Ironmongery				R -
11	Structural steelwork				R -
12	Metalwork				R -



**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
13	Plastering			R	-
14	Tiling			R	-
15	Paintwork			R	-
16	Plumbing and drainage			R	-
17	Electrical work			R	-
18	Mechanical work			R	-
19	Glazing			R	-
20	External work			R	-
21	Provisional sums			R	-
<b>TOTAL - SECTION NO.2.1.1 - SKILLS DEVELOPMENT CENTRE - EXTERNAL CLASSROOMS</b>					
<b>TOTAL - BUILDING WORKS - SECTION NO. 2.1 - SKILLS DEVELOPMENT CENTRE</b>					
<b>SECTION NO. 2.2 - SKILLS DEVELOPMENT CENTRE - BUILDING WORKS - STEEL WATER TANKS AND</b>					
<b>STEEL WATER TANK &amp; SEPTIC TANKS - BILL NO. 1</b>					
<b>PRELIMINARIES</b>		<b>H1</b>			
<b>FIXED CHARGE ITEMS</b>					
<u>Contractual requirements.</u>					
	Insurances	SUM	1		
	Programming	SUM	1		
	Performance Security	SUM	1		
	Retention Guarantee	SUM	1		
<u>Establishment of Facilities on the Site</u>					
	Facilities for Engineer				
	Equipment for the Engineer's Staff	SUM	1		
<u>Facilities for Contractor</u>		<b>H4</b>			
	Offices and Storage Sheds	SUM	1		
	Workshops	SUM	1		
	Site Establishment	SUM	1		
	Living Accomodation - The Contractor to supply a breakdown of the different categories namley: Supervision, Skilled Labor, Semi Skilled Labour and Unskilled Labour	SUM	1		
	Laboratory Facilities	SUM	1		
	Ablution and Latrine Facilities	SUM	1		
	Tools and Equipment	SUM	1		
	Water Supplies	SUM	1		
	Electric Power	SUM	1		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Communication	SUM	1		
	Air Supplies	SUM	1		
	Dealing with Water	SUM	1		
	Access	SUM	1		
	<u>Facilities Requiring Special Attention</u>				
	Security	SUM	1		
	Safety	SUM	1		
	Samples and certification of materials	SUM	1		
	Testing Authority	SUM	1		
	Other Contractors	SUM	1		
	Quality Assurance	SUM	1		
	Orders and Indents	SUM	1		
	Site Meetings	SUM	1		
	Plant for the Works	SUM	1		
	Transport on the site	SUM	1		
	Transport of the Workforce to and from the site	SUM	1		
	Supervision for the duration of the construction	SUM	1		
	Company and head office overheads costs for the duration of the contract works	SUM	1		
	Other fixed charge obligation - Contractor to submit details	SUM	1		
	Remove site establishment on completion	SUM	1		
	<b>VALUE RELATED ITEMS</b>				
	<u>Contractual requirements.</u>				
	Insurances	SUM	1		
	Programming	SUM	1		
	Performance Security	SUM	1		
	Retention Guarantee	SUM	1		
	<u>Establishment of Facilities on the Site</u>				
	<u>Facilities for Engineer</u>				
	Equipment for the Engineer's Staff	SUM	1		
	<u>Facilities for Contractor</u>				
	Offices and Storage Sheds	SUM	1		
	Workshops	SUM	1		
	Site Establishment	SUM	1		
	Living Accomodation - The Contractor to supply a breakdown of the different categories namley: Supervision, Skilled Labor, Semi Skilled Labour and Unskilled Labour	SUM	1		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Laboratory Facilities	SUM	1		
	Ablution and Latrine Facilities	SUM	1		
	Tools and Equipment	SUM	1		
	Water Supplies	SUM	1		
	Electric Power	SUM	1		
	Communication	SUM	1		
	Air Supplies	SUM	1		
	Dealing with Water	SUM	1		
	Access	SUM	1		
	<u>Facilities Requiring Special Attention</u>				
	Security	SUM	1		
	Safety	SUM	1		
	Samples and certification of materials	SUM	1		
	Testing Authority	SUM	1		
	Other Contractors	SUM	1		
	Quality Assurance	SUM	1		
	Orders and Indents	SUM	1		
	Site Meetings	SUM	1		
	Plant for the Works	SUM	1		
	Transport on the site	SUM	1		
	Transport of the Workforce to and from the site	SUM	1		
	Supervision for the duration of the construction	SUM	1		
	Company and head office overheads costs for the duration of the contract works	SUM	1		
	Other value related obligations - Contractor to submit details	SUM	1		
	Remove site establishment on completion	SUM	1		
	<b>TIME RELATED ITEMS</b>				
	<u>Contractual requirements.</u>				
	Insurances	SUM	1		
	Programming	SUM	1		
	Performance Security	SUM	1		
	Retention Guarantee	SUM	1		
	<u>Establishment of Facilities on the Site</u>				
	<u>Facilities for Engineer</u>				
	Equipment for the Engineer's Staff	SUM	1		
	<u>Facilities for Contractor</u>				
	Offices and Storage Sheds	SUM	1		

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Workshops	SUM	1		
	Site Establishment	SUM	1		
	Living Accomodation - The Contractor to supply a breakdown of the different categories namley: Supervision, Skilled Labor, Semi Skilled Labour and Unskilled Labour	SUM	1		
	Laboratory Facilities	SUM	1		
	Ablution and Latrine Facilities	SUM	1		
	Tools and Equipment	SUM	1		
	Water Supplies	SUM	1		
	Electric Power	SUM	1		
	Communication	SUM	1		
	Air Supplies	SUM	1		
	Dealing with Water	SUM	1		
	Access	SUM	1		
	<u>Facilities Requiring Special Attention</u>				
	Security	SUM	1		
	Safety	SUM	1		
	Samples and certification of materials	SUM	1		
	Testing Authority	SUM	1		
	Other Contractors	SUM	1		
	Quality Assurance	SUM	1		
	Orders and Indents	SUM	1		
	Site Meetings	SUM	1		
	Plant for the Works	SUM	1		
	Transport on the site	SUM	1		
	Transport of the Workforce to and from the site	SUM	1		
	Supervision for the duration of the construction	SUM	1		
	Company and head office overheads costs for the duration of the contract works	SUM	1		
	Other time related obligation - Contractor to submit details	SUM	1		
	Remove site establishment on completion	SUM	1		
	<b>TOTAL - SECTION NO. 2.2 - SKILLS DEVELOPMENT CENTRE - STEEL WATER TANK - BILL NO.1 - PRELIMINARIES AND GENERAL</b>				
	<b><u>SECTION NO. 2.2.1 - STEEL WATER TANK</u></b>	<b>H1</b>			
	<b>BILL NO. 1</b>	<b>H1</b>			
	<b>EARTHWORKS</b>	<b>H1</b>			
	<b><u>CLEAR SITE TO ACCOMMODATE THE TANKS</u></b>	<b>H1</b>			

For preambles see "Model Preambles for Trades (2008

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>Edition)" and Supplementary preambles as specified in the Trades</p> <p><b>SUPPLEMENTARY PREAMBLES</b></p> <p>Unless otherwise stated, all materials from the alterations and demolition will belong to the builder.</p> <p>The builder should allow for the removal of all debris from site and keeping the site clean at all times.</p> <p>The Contractor should allow for removing of rubble from site on daily basis, failing which the client might stop the construction until the site has been cleaned.</p> <p>NATURE OF WORK: Tenderers are advised to visit the site and to satisfy themselves as to the nature and extent of the work to be done and provide in their tenders any items not specifically mentioned which they may deem necessary for the proper completion of the work. Tenderers are advised that the existing building will be in occupation during the progress of the work and due allowance must be made for work being carried out at such times and in such manner as will least interfere with the routine of the occupants and as may be directed by the Quantity Surveyor.</p> <p>NATURE OF WORK: Tenderers are advised to visit the site and thoroughly acquaint themselves with the nature of demolitions, the nature and the extent the work to be done and adequate provisions are to be made in tendered rates for items not specifically mentioned which they may deem necessary for the proper completion of the work</p> <p>COLLEGE TO REMAIN OPERATIONAL: Tenderers are to note that all existing buildings of the facility will remain occupied and fully operational during the construction period and due allowance must be made for the work being carried out at such times and in such manner as directed by the Principal Agent to ensure the least interference with the routine of the college.</p> <p>DEMOLITIONS OF BUILDINGS: Tenderers are to note that tendered rates for the demolitions of buildings are to cater for the following:</p> <p>The temporary closing off and/or diversion of existing services i.e. water supply, sewer lines, etc</p> <p>The complete ripping out and removal of old foundations and deed underground services as referred to above.</p> <p>Trenches, holes, etc. created as a result of The removal of foundations, services, etc shall be backfilled with approved filling material and compacted to 95% Mod AASHTO density.</p> <p>All other disturbed levels shall be ripped for a depth of 150mm, including breaking down oversize material and compacted to 93% Mod AASHTO density.</p> <p>It will at All times throughout The contract period, be expected from the Contractor to, immediately after each portion of demolishing has been completed, remove and cart away all building rubble generated to a dumping site to be located by the Contractor off the station premises. The temporarily dumping and/or stockpiling of rubble on site will not be permitted</p> <p><b>CARTING AWAY OF EXCESSIVE AND/OR UNSUITABLE EXCAVATED MATERIAL, BUILDING RUBBLE, ETC</b></p> <p>Descriptions for "carting away excessive or unsuitable excavated material, building rubble from demolitions, etc from site" shall be deemed to include the loading and hauling of excessive or unsuitable excavated material, building rubble</p>	H2			

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A NEW SKILLS DEVELOPMENT CENTRE AND ADDITIONAL CLASSROOMS AT  
LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>from demolitions, etc. to a suitable dumping site to be located by the Contractor off the building site.</p> <p>The location of the intended dumping site will be subjected to prior written approval of the Principal Agent.</p> <p>The Contractor will also be liable to, upon completion, rehabilitate all those areas of the dumping site used dumping/spoiling by grading the area to follow the adjacent ground contours and afterwards compacted to 80% Mod AASHTO density, all to the satisfaction of the Principal Agent.</p> <p>Tendered rates must make provision for the above-mentioned as no additional claims in this regard will afterwards be entertained.</p> <p>The re-use of old materials obtained from the demolitions in the construction of the new buildings, for filling, etc will not be permitted.</p> <p><b>EXISTING SERVICES: Special care is to be taken by the</b> Contractor not to interfere unnecessarily with existing services. Should the contractor encounter any existing services such as underground cables, pipes or sewers during the execution of the works he shall notify the Principal Agent immediately and suspend all affected work in the immediate vicinity until such have been dealt with (i.e. removed, disconnected, re-routed, etc) and instruction to proceed with the work has been given by the Principal Agent</p> <p>The Contractor shall afford every facility to Specialist which might be employed by the Principal Agent to effect the necessary removal, disconnection, re-routing, etc of services as might be required.</p> <p><b>PROTECTION:</b> In taking down and demolishing existing work the utmost care is to be observed to avoid any structural or other damages to the remaining portions and/or adjacent buildings, structures and services, etc. It will be expected from the Contractor to, at all times, employ adequate precaution measures in this regard and to provide all necessary materials for so doing</p> <p>The Contractor will be held solely responsible for any damages to persons or property and for the safety of the structures throughout the whole of this Contract and shall make good at his own expense any such damages arising out of his failure to adhere to the aforesaid requirement.</p> <p><b>FILLING:</b> Where described as "including back filling", "back filling" shall mean the filling of all trenches, holes, etc. with approved gravel filling ( Minimum G5 standard) to be obtained from a commercial source and compacted to 93% Mod AASHTO density.</p> <p><b>OLD MATERIAL:</b></p> <p>It will be expected from the Contractor that all old materials not required, rubble, rubbish, etc. to be immediately carted away and site left clean and unencumbered at all times.</p> <p><b>MEASUREMENT:</b> Measurement given are approximate and the Contractor is advised to view the site and existing structures to be demolished and to thoroughly acquaint himself with the extent of the work to be done.</p> <p>Any errors to the tendered rates in this regard shall be Contractor's expense as no claims in this regard will be entertained afterwards</p> <p><b>TENDER:</b> The submission of a tender will imply that the Contractor has physically visited the site and fully understands</p>				

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**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<p>the content and extent of the work described in this Bill and, therefore, accepts that no claims in this respect will thus be entertained afterwards.</p> <p><b>DIMENSIONS</b> The Contractor is advised to take all dimensions affecting the existing buildings on the site, as he will be held solely responsible for all new work being of the correct size.</p> <p><b>PIPES, ETC</b> Special care is to be taken not to interfere unnecessary with any supply pipes or other piping that may be met with and found necessary to disconnect or cut, are to be effectively stopped off and any new connections that may be necessary are to be made with proper fittings and to the satisfaction of the QS to whom due notice must be given of any alterations to the existing services.</p> <p><b>PROTECTION</b> In taking down and removing existing work the utmost care is to be observed to avoid any structural or other damage to the remaining portions of the buildings. The Contractor must also protect all work not removed such as walls, floors, doors, windows or other joinery, loose and fixed fittings and electrical appliances, etc. from damage during the progress of the work and provide all necessary materials for doing so. The Contractor will be held solely responsible for any damage to persons or property and for the safety of the structure throughout the whole of this Contract and must make good at his own expense any damage that may occur.</p> <p><b>MATERIALS, ETC</b> The materials to be used and work to be done to be similar in all respects to that described for new work insofar as they concur. All work in making good is to be properly jointed to the existing.</p> <p><b>NOTE:</b> All Demolished materials to be sent to the salvaged yard which is to be located by the contractor, thus all the rates to allow for sending to the salvage yard that will be located by the contractor</p> <p><b><u>General site clearance</u></b></p> <p>Clear site of existing shrubs and trees</p>	m2	185		
<b>TOTAL- SECTION 2.2.1 - SKILLS DEVELOPMENT CENTRE - STEEL WATER TANK - BILL NO.1- EARTHWORKS</b>					
	<p><b><u>SECTION NO. 2.2.1</u></b></p> <p><b><u>BILL NO.2</u></b></p> <p><b><u>EARTHWORKS (PROVISIONAL)</u></b></p> <p><b><u>PREAMBLES</u></b></p> <p>The tenderer referred to the relevant Clauses in the separate document Model Preambles for Trades and to the Supplementary Preambles</p> <p><b>SUPPLEMENTARY PREAMBLES</b></p> <p>Nature of ground</p> <p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured</p> <p>Carting away of excavated material</p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks</p>	H1 H1 H2 H2 H3			

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LEHURUTSHE CAMPUS – TALETSO TVET COLLEGE**

**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	directly from the excavations or, alternatively from stock piles situated on the building site				
	The following in workgroup 104	H3			
	<b><u>EXCAVATION, FILLING, ETC OTHER THAN BULK</u></b>	<b>H2</b>			
	<b><u>Excavation in earth not exceeding 2m deep</u></b>	<b>H4</b>			
	Bulk excavations	m3	110		
	Shallow excavations for bidding cloth, Nextube drainex 110mm x6mm slotted pipe	m3	7		
	<u>Extra over trench and hole excavations in earth for excavation in:</u>	H4			
	Soft rock	m3	11		
	Hard rock	m3	6		
	<u>Extra over all excavations for carting away</u>	H4			
	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor , +- 10 KM away from site	m3	110		
	<u>Risk of collapse of excavations</u>	H4			
	Sides of bulk excavations not exceeding 1,5m deep	m2	41		
	<u>Keeping excavations free of water</u>	H4			
	Keeping excavations free of all water other than subterranean water	Item	1		
	<b><u>FILLING ETC</u></b>	<b>H2</b>			
	<b><u>Filling of natural gravel material supplied by the contractor:</u></b>	H4			
	Backfilling to trenches, holes, etc with 200mm pioneer layer of 110 nominal stone size	m3	27		
	150mm G5 compacted to 93% Mod AASHTO	m3	27		
	150mm G5 compacted to 97% Mod AASHTO	m3	27		
	150mm C3 compacted to 98% Mod AASHTO Mon UCS 2000 kPa	m3	27		
	150mm G6 material compacted to 95% Mod AASHTO	m3	27		
	<b><u>Filling of natural gravel material supplied by the contractor, compacted to 95% Mod AASHTO density.</u></b>				
	Under floors, steps, paving, etc	m3	27		
	<b><u>Filling of 19mm bedding stones, natural gravel material supplied by the contractor to bedding cloth.</u></b>				
	19mm stone to bedding cloth	m3	7		
	<b><u>Compaction of surfaces</u></b>	H4			
	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	135		
	<b><u>SOIL POISONING</u></b>	<b>H2</b>			
	<u>Soil insecticide</u>	H4			
	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	135		
	To bottoms and sides of trenches etc	m2	180		



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**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b><u>TESTS</u></b>	H2			
	<u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u>	H4			
	"Modified AASHTO Density" test	No	5		
	"Natural California Bearing Ratio" test	No	5		
	"Field Density "test, including "Optimum Moisture Content" test (four readings per test)	No	5		
	<b>TOTAL - SECTION NO. 2.2.1 - SKILLS DEVELOPMENT CENTRE - STEEL WATER TANK - BILL NO. 2 - EARTHWORKS</b>				
	<b><u>SECTION NO. 2.2.1 - STEEL WATER TANK</u></b>				
	<b><u>BILL NO.3</u></b>	H1			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>	H1			
	<b><u>PREAMBLES</u></b>	H1			
	The Tenderer is referred to the relevant Clauses in the seperate document Model Preambles for Trades and to the Supplementary Preambles				
	<b>SUPPLEMENTARY PREAMBLES</b>	H2			
	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. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)				
	<b>Formwork</b>	H3			
	Description 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				
	Formworks to soffits of solid etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described				
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"				
	<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>	H2			
	<u>30Mpa/19mm concrete</u>	H4			
	Tapered concrete beams	m3	28		

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**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Concrete slabs	m3	67		
	170mm Surface beds	m3	3		
	<b><u>TEST BLOCKS</u></b>	<b>H2</b>			
	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	3		
	<b><u>CONCRETE SUNDRIES</u></b>	<b>H2</b>			
	<u>Finishing top surfaces of concrete smooth with a power float</u>	H4			
	Surface beds, slabs, etc	m2	135		
	<b><u>MOVEMENT JOINTS ETC</u></b>	<b>H2</b>			
	<u>Isolation Joints</u>	H4			
	10mm Isolation joints in concrete works	m	609		
	10mm vertical control joint in brickwork and V-joint expansion joint in plaster and screed	m	609		
	<u>Saw-cut joints</u>	H4			
	6 x 25mm Saw-cut joints in top of concrete	m	26,3		
	<u>Expansion joints with 20mm softboard bitumen impregnated softboard between vertical concrete and brick surfaces</u>	H4			
	Not exceeding 300mm high to edges of surface beds	m	60		
	<b><u>FORMWORK</u></b>	<b>H2</b>			
	Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described				
	NOTE: Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 111 for Haylet formula purposes				
	NOTE: All formwork utilised on the ground floor for the surface bed should and can be utilised later on the first and second floors when pouring the 30 Mpa, 70mm thick concrete topping				
	<b><u>The following in workgroup 111</u></b>	<b>H3</b>			
	<b><u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u></b>				
	<u>Rough formwork to sides</u>	H4			
	Tapered beams (Provisional)	m2	128		
	<b><u>REINFORCEMENT</u></b>	<b>H2</b>			
	<b><u>The following in workgroup 114</u></b>	<b>H3</b>			
	<u>Mild steel reinforcement to structural concrete work</u>	H4			
	Y25	t.	6		
	Y16	t.	3		
	Y12	t.	3,5		
	R8	t.	2		
	<u>Fabric reinforcement</u>	H4			
	Type Ref.395 Fabric reinforcement in concrete surface bed	m2	135		

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**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>TOTAL SECTION NO. 2.2.1 - SKILLS DEVELOPMENT CENTRE - STEEL WATER TANK - BILL NO. 3 - CONCRETE. FORMWORK AND REINFORCEMENT</b>				
	<b><u>SECTION NO. 5.1</u></b>				
	<b><u>BILL NO. 4</u></b>	H1			
	<b><u>PRECAST CONCRETE</u></b>	H1			
	<b><u>PREAMBLES</u></b>	H2			
	<b><u>Supply, deliver and install precast concrete plinth beams</u></b>				
	400mm x 200mm pre-cast concrete plinth	m	63		
	<b>TOTAL SECTION NO. 2.2.1 - SKILLS DEVELOPMENT CENTRE - STEEL WATER TANK -BILL NO. 4 - PRECAST CONCRETE</b>				
	<b><u>SECTION NO. 5.1</u></b>				
	<b><u>BILL NO. 5</u></b>	H1			
	<b><u>WATERPROOFING</u></b>	H1			
	<b><u>PREAMBLES</u></b>	H2			
	Geotextile/Biddim cloth to be approved membrane	m2	135		
	<b>TOTAL SECTION NO. 2.2.1 - SKILLS DEVELOPMENT CENTRE - STEEL WATER TANK - BILL NO. 5 - WATERPROOFING</b>				
	<b><u>SECTION NO. 2.2.1 - STEEL WATER TANK</u></b>				
	<b><u>BILL NO. 6</u></b>	H1			
	<b><u>METALWORK</u></b>	H1			
	<b><u>PREAMBLES</u></b>	H2			
	The Tenderer is referred to the relevant clauses in the separate document model preambles for trades and to the supplementary preambles				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>	H2			
	Descriptions	H3			
	Description of bolts shall be deemed to include nuts and washers				
	Description 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 bolts(s)" shall be deemed to exclude the bolts unless otherwise described				
	<b><u>GALVANISED STEEL CAT LADDERS</u></b>	H2			
	<b><u>Welded cat ladder to Engineer's specification</u></b>	H4			
	750mm x 5000mm high diameter welded cat ladder to Engineer's spec including flat and angle section connections bolted to brickwork or concrete (bolts elsewhere)	No.	2		
	Hole through steel for bolt	No	6		
	Expansion bolt as per Engineer's drawing	No	6		
	<b>TOTAL SECTION NO. 2.2.1 - SKILLS DEVELOPMENT CENTRE - STEEL WATER TANK - BILL NO. 6 - METALWORK</b>				

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**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b><u>SECTION NO. 2.2.1</u></b>	H1			
	<b><u>BUILDING WORKS</u></b>	H3			
	<b><u>BILL NO.1</u></b>	H1			
	<b><u>ELEVATED STEEL WATER STORAGE TANK</u></b>				
	<b><u>LEHURUTSHE CAMPUS</u></b>				
	Supply and installation of galvanized steel water tank (326.9 k/litres) size 10980 x 6100 x 4880mm high including all special parts, reinforced foundations and dwarf walls at 500mm high with reinforced concrete bases and all connections complete as per the Engineer's drawings and instructions.	Item	1		-
	Supply and install the water purification system for 326.9 k/litres tank capacity	Item	1		-
	Supply and installation of portable water pressure system with green energy for 326.9 k/litres capacity	Item	1		-
	Supply and installation of waste water pressure system for 326.9 k/litres	Item	1		-
	Supply and installation of industrial borehole at a maximum drilling of 100m below ground, including all special parts.	Item	1		-
	Make an allowance for a septic tank		1		-
	<b>TOTAL SECTION NO. 2.2.1 - SKILLS DEVELOPMENT CENTRE - BILL NO.1 - ELEVATED STEEL WATER STORAGE TANKS AND SEPTIC TANK</b>				
	<b><u>CONTINGENCIES - ELEVATED STEEL WATER STORAGE TANKS AND SEPTIC TANK</u></b>	H2			
	<b><u>Contigencies</u></b>	H4			
	Allow 10% of the measured works for the purposes of the contingencies. The contingencies to be used at the discretion of the client supported by the principal agent (This amount to exclude for the P&G value)	SUM	1		-
	<b>TOTAL SECTION NO. 2.2.1 - BILL NO.1 - CONTINGENCIES</b>				
	<b><u>SUB - SUMMARY - STEEL WATER TANK AND SEPTIC TANK</u></b>				
	PRELIMINARIES AND GENERAL ALTERATIONS EARTHWORKS (PROVISIONAL) CONCRETE, FORMWORK AND REINFORCEMENT PRECAST CONCRETE WATERPROOFING METALWORK ELEVATED STEEL WATER STORAGE TANK AND SEPTIC TANK CONTINGENCIES @ 10 %				
	<b>TOTAL SECTION NO.2.2.1 - SKILLS DEVELOPMENT CENTRE - STEEL WATER TANKS AND SEPTIC TANKS - EXCLUDING VAT</b>				
	<b><u>SECTION NO. 2.3 - SKILLS DEVELOPMENT CENTRE - SOLAR POWER</u></b>				
	<b><u>SOLAR POWER - BILL NO. 1</u></b>				
	<b>SOLAR PV SYSTEM</b>	H1			
	<b>MODULES</b>				
	Supply and installation of 550W PV Modules - The modules will have output cables of 4 mm <sup>2</sup> and have leads of 2m in length for both anode and cathode	each	73,00		
	Sample testing of at least 10% of supplied PV modules to be certified by an independent laboratory (e.g. TUV). This is optional and can be done at the clients discretion if required.	No.	7,30		

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**FULL SCOPE OF WORKS**

BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	<b>INVERTERS</b>				
	Supply and installation of sunsynk 50kW HV three phase hybrid Inverters or similar. - Input: 1,100 Vmax, 50 Amax - Output: 50 kW, 400 V, 50 Hz.	No.	1,00		
	Extended warranty on inverters (10% additional)	No.	1,00		
	<b>MOUNTING STRUCTURE</b>				
	Supply of mounting structure: Roof mounting structure (Subject to detailed design specifications)	Lot	1,00		
	<b>BATTERIES</b>				
	Supply, deliver and installation of 10kW lithium ion batteries	No	5,00		
	<b>SubTotal - Section No. 2.3 - SKILLS DEVELOPMENT CENTRE - BILL NO.1 - SOLAR SYSTEM</b>				
	<b>SECTION NO. 6</b>				
	<b>LOW VOLTAGE NETWORK</b>				
	<b>BILL NO. 2</b>				
	<b>LV (DC) NETWORK</b>				
	Supply, Transportation & Installation Conductors & Cable Trays:				
	<b>DC String Cables</b>				
	900/1500 V Solardac Aberdare or equivalent - 6mm <sup>2</sup> Tin-plated Cu PVC insulated single core UV protected Solar Cables	m	300,00		
	1500 V DC Solar Connectors (Male & Female Pair)	Sum	1,00		
	<b>DC Cables</b>				
	PVC earth wire used as earthing conductor for PV mounting structures.	m	80,00		
	Galvanised cable tray, including cover, nuts, bolts and other clamps, brackets and mounting accessories. Cable tray to be mounted on suitable brackets.	m	60,00		
	<b>LV (AC) NETWORK</b>				
	Supply, Transportation & Installation of Conductors & Cable Trays:				
	<b>AC CABLING MATERIAL</b>				
	Inverter LV cabling to AC Combiner - 70mm <sup>2</sup> 3-core, Cu, PVC/SWA/PVC.	m	15,00		
	AC Combiner Box connection to DB. 70mm <sup>2</sup> 4-Core, Cu, PVC/SWA/PVC.	m	20,00		
	Permanent Earth Cable, Grey/Yellow PVC.	m	20,00		
	<b>LV Distribution Board:</b> ☒				
	Panel for AC combiner to be tied in to the main LV panel in the main kiosk:				
	- IP 54 or higher with lockable doors and applicable warning signs				
	- 1 x SPD Type 1/2 combination with status contact				
	- 1 x DC Power supply (12V - 48V, depending on data logger)				
	- 2 x 60A 3P Moulded Circuit Breaker (MCB)				
	- Monitoring System (RS485 output)				
	String Current measurement				
	DC Bus Voltage Measurement				
	Surge Protection Status				
	One additional analogue input for RS485 conversion	No.	1,00		
	<b>SubTotal - Section No.2.3 - SKILLS DEVELOPMENT CENTRE - BILL NO.2 - Low Voltage Network</b>				
	<b>SECTION NO. 2.3</b>				
	<b>BILL NO. 4</b>				
	<b>GENERAL</b>				
	<b>AS BUILT DOCUMENTATION</b>				

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BILL					
ITEM NO		UNIT	QUANTITY	RATE	AMOUNT
	Allow for the mark up of record drawings, submission of 3 sets of as-built files containing material specifications, DB workshop drawings, COC's, IR scanning report, etc. Files to comply with the Electrical Engineer's specification and requirements.	Sum	1,00		
	<b>INSPECTION, TESTING AND COMMISSIONING</b>				
	Inspection, testing and handing over of the complete installation in the presence of Engineer and certify the results on the Certificate of compliances by an accredited (Master Installation Electrician).	Sum	1,00		
	<b>LABELLING</b>				
	Lable all circuits and install signage to the panels	sum	1,00		
	<b>SubTotal - Section No.2.3 - SKILLS DEVELOPMENT CENTRE - BILL NO.4 - General</b>				
	<b>TOTAL SOLAR PV SYSTEM - SKILLS DEVELOPMENT CENTRE</b>				
	<b>SECTION NO.3</b>	H1			
	<b>CONTINGENCIES - SKILLS DEVELOPMENT CENTRE</b>	H3			
	<b>BILL NO.1</b>	H1			
	<b>CONTINGENCIES</b>	H2			
	<b>Contigencies</b>	H4			
	Allow 5% of the measured works for the purposes of the contingencies. The contingencies to be used at the discretion of the client supported by the principal agent (This amount to exclude for the P&G value)	SUM	1		-
	<b>TOTAL SECTION NO.3 - BILL NO.1 - CONTINGENCIES</b>				
	<b>FINAL SUMMARY - SKILLS DEVELOPMENT CENTRE</b>				
	SECTION NO.1 - PRELIMINARIES				
	SECTION NO.2 - BUILDING WORKS - SKILLS DEVELOPMENT CENTRE				
	SECTION NO.3 - CONTINGENCY				
	<b>SUBTOTAL CONTRACT SUM (VAT excl)</b>				
	<b>VAT @15%</b>	%	1		
	<b>TOTAL CONTRACT SUM INCLUDING FEES (VAT Incl)</b>				