THE LUTHERAN WORLD FEDERATION

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LUTHERAN WORLD FEDERATION

Dadaab Area Program

"TENDER FOR PROPOSED THREE (3) NEW LABORATORIES FOR JUNIOR SECONDARY SCHOOLS IN DADAAB"

TENDER NO.:

LWF/DDB/EDUC/29342/2023

LOCATION:

Dagahaley, Ifo, and Hagadera

SUBMISSION DEADLINE.:

11th December 2023 - 1700HRS

A. INVITATION TO TENDER

Lutheran World Federation (LWF) invites tenders from approved and reputable building works Contractors for the above works in Dagahaley, Ifo and Hagadera.

A **Mandatory Site visit** will be on **Tuesday, 21st November 2023**

B. INSTRUCTIONS TO TENDERERS.

1. General

1.1 Bid documents in sealed envelopes and clearly marked with respective contract numbers to be addressed to **THE PROCUREMENT COMMITTEE,** be **Registered** and ***dropped in*** the **LWF Tender Box** at the **DMO Main Gate** (UNHCR Dadaab Main Office gate).

1.2 Tenderers shall include the following information and documents with their Tenders, unless otherwise stated:

(a) Copies of certificates of registration, and principal place of business
(b) Total monetary value of similar construction work performed for each of the last 2 years
(c) Experience in works of a similar nature and size for each of the last 2 years, and clients who may be contacted for further information on these contracts
(d) Major items of construction equipment owned
(e) Qualifications and experience of key site management and technical personnel proposed for the Contract;
(f) Bank statement or financial report for the past 6 months

1.3 The Tenderer shall bear all costs associated with the preparation and submission of his/her tender, and LWF will in no case be responsible or liable for those costs.

1.4 The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine the site of the works and its surroundings, and obtain all information that may be necessary for preparing the tender and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Tenderer's own expense.

1.5 The procurement entity's employees, committee members, board members and their relative (spouse and children) are not eligible to participate in the tender.

1.6 The procuring entity shall allow the tenderer to review the tender document free of charge before purchase.

2. Tender Documents

2.1 The complete set of tender documents comprises the documents listed here below and any addenda issued in accordance with clause 2.4 here below: -

(a) These instructions to Tenderers
(b) Form of Tender
(c) Specifications
(d) Drawings
(e) Bills of Quantities/Schedule of Rates (whichever is applicable)
(f) Other materials required to be filled and submitted in accordance with these Instructions and Conditions

2.2 The Tenderer shall examine all instructions, forms and specifications in the tender documents. Failure to furnish all information required by the tender documents may result in rejection of his/her tender.

2.3 Prospective Tenderers making inquiries of the tendering documents may notify LWF in writing via email at least a week before the closure of the tender. The LWF will respond will respond to any request for clarification received earlier than five [5] days prior to the deadline for submission of tenders. Copies of LWF's response will be forwarded to all persons issued with tendering documents, including a description of the inquiry, but without identifying its source.

2.4 Before the deadline for submission of tenders, LWF may modify the tendering documents by issuing addenda. Any addendum thus issued shall be part of the tendering documents and shall be communicated in writing or by cable, telex or facsimile to all Tenderers. Prospective Tenderers shall acknowledge receipt of each addendum in writing to LWF.

2.5 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their tenders, LWF shall extend, as necessary, the deadline for submission of tenders in accordance with clause 4.5 here below.

3. Preparation of Tenders

3.1 All documents relating to the tender and any correspondence shall be in English language.

3.2 The tender submitted by the Tenderer shall comprise the following: -

(a) The Tender;
(b) Priced Bill of Quantities/Schedule of Rates for lump-sum Contracts
(c) Any other materials required to be completed and submitted by Tenderers.

3.3 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities/Schedule of Rates. Items for which no rate or price is entered by the Tenderer will not be paid for when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities/Schedule of Rates.

3.4 The rates and prices quoted by the Tenderer shall not be subject to any adjustment during the performance of the Contract.

3.5 The unit rates and prices shall be in Kenya Shillings.

3.6 Tenders shall remain valid for a period of 60 days from the date of submission. However, in exceptional circumstances, LWF may request that the Tenderers extend the period of validity for a specified additional period. The request and the Tenderers' responses shall be made in writing.

3.7 The Tenderer shall prepare one original of the documents comprising the tender documents as described in these Instructions to Tenderers.

3.8 The original shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Tenderer. The person or persons signing the tender shall initial all pages of the tender where alterations or additions have been made.

3.9 Clarification of tenders shall be requested by the tenderer to be received by the procuring entity not later than 5 days prior to the deadline for submission of tenders.

3.10 The procuring entity shall reply to any clarifications sought by the tenderer within 3 days of receiving the request to enable the tenderer to make timely submission of its tender.

4. Submission of Tenders

4.1 The tender shall be duly filled and submitted in the Tender box at the DMO Main Gate

4.2 The tenderer shall not submit any alternative offers unless they are specifically required in the tender documents. Only one tender may be submitted by each tenderer. Any tenderer who fails to comply with this requirement will be disqualified.

4.3 Any tender received after the deadline for opening tenders will be returned to the tenderer un- opened.

4.4 LWF may extend the deadline for submission of tenders by issuing an amendment in accordance with sub-clause 2.5 in which case all rights and obligations of The Authority and the Tenderers previously subject to the original deadline will then be subject to the new deadline.

5. Tender Opening and Evaluation

5.1 The tenders will be opened after the closure of the bid by the tender opening committee. Tenderers are not expected to attend the opening and evaluation.

5.2 The Tenderers' names, the total amount of each tender and such other details as may be considered appropriate, will be announced at the opening by The Authority. Minutes of the tender opening, including the information disclosed to those present will also be prepared by LWF's procurement officer.

5.3 Information relating to the examination, clarification, evaluation and comparison of tenders and recommendations for the award of the Contract shall not be disclosed to Tenderers or any other persons not officially concerned with such process until the award to the successful Tenderer has been announced. Any effort by a Tenderer to influence LWF's officials, processing of tenders or award decisions may result in the rejection of his tender.

5.4 Tenders determined to be substantially responsive will be checked for any arithmetic errors. Errors will be corrected as follows:

(a) where there is a discrepancy between the amount in figures and the amount in words, the amount in words will prevail; and

(b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will prevail, unless in the opinion of LWF's representative, there is an obvious typographical error, in which case the adjustment will be made to the entry containing that error.

(c) In the event of a discrepancy between the tender amount as stated in the Form of Tender and the corrected tender figure in the main summary of the Bill of Quantities/Quotation, the amount as stated in the Form of Tender shall prevail. The Error Correction Factor shall be computed by expressing the difference between the tender amount and the corrected tender sum as a percentage of the Corrected Builder's Work (i.e. corrected tender sum less P.C. and Provisional Sums).

(e) The Error Correction Factor shall be applied to all Builders' Work (as a rebate or addition as the case may be) for the purposes of valuations for Interim Certificates and valuation of variations.

(f) The amount stated in the tender will be adjusted in accordance with the above

procedure for the correction of errors and with concurrence of the Tenderer, shall be considered as binding upon the Tenderer. If the Tenderer does not accept the corrected amount, the tender may be rejected and the Tender Security forfeited.

5.5 The tender evaluation committee shall evaluate the tender within **14 days** of the validity period from the date of opening the tender.

5.7 Where contract price variation is allowed, the valuation shall not exceed 15% of the original contract price.

5.8 Price variation requests shall be processed by the procuring entity within 30 days of receiving the request.

5.9 Preference where allowed in the evaluation of tenders shall not exceed 15%

5.10 To assist in the examination, evaluation, and comparison of tenders, LWF at its discretion, may request [in writing] any Tenderer for clarification of the tender, including breakdowns of unit rates. The request for clarification and the response shall be via email but no change in the tender price or substance of the tender shall be sought, offered or permitted.

5.11 The Tenderer shall not influence LWF on any matter relating to the tender from the time of the tender opening to the time the Contract is awarded. Any effort by the Tenderer to influence LWF or his employees in his decision on tender evaluation, tender comparison or Contract award may result in the rejection of the tender.

6. Award of Contract

6.1 The award of the Contract will be made to the Tenderer who has offered the *best* evaluated tender price.

6.2 Notwithstanding the provisions of clause 6.1 above, LWF reserves the right to accept or reject any tender and to cancel the tendering process and reject all tenders at any time prior to the award of Contract without thereby incurring any liability to the affected Tenderer or Tenderers or any obligation to inform the affected Tenderer or Tenderers of the grounds for the action.

6.3 The Tenderer whose tender has been accepted will be contacted via phone and email and enter into written contract.

6.4 The Contract Agreement will incorporate all agreements between LWF and the successful Tenderer. It will be signed by LWF and sent to the successful Tenderer, within 10 days following the notification of award. Within 5 days of receipt, the successful Tenderer will sign the Agreement and return it to The Authority.

6.5 The procuring entity may at any time terminate procurement proceedings before contract award and shall not be liable to any person for the termination.

6.6 The procuring entity shall give prompt notice of the termination to the tenderers and on request give its reasons for termination within 7 days of receiving the request from any tenderer.

7 Corrupt and fraudulent practices

7.1 The procuring entity requires that the tenderer observes the highest standard of ethics during the procurement process and execution of the contract. A tenderer shall sign a declaration that he has not and will not be involved in corrupt and fraudulent practices.

7.2 The procuring entity will reject a tender if it determines that the tenderer recommended for award has engaged in corrupt and fraudulent practices in competing for the contract in question.

7.3 Further a tenderer who is found to have indulged in corrupt and fraudulent practices risks being debarred from participating in public procurement in Kenya.

C. EVALUATION

i) Evaluation Criteria

The tender document submitted will be evaluated in three (3) stages; - General Mandatory, Technical Capacity and Financial. The evaluation process will be in stages as follows: -

1. General Mandatory –Pass/Fail
2. Technical Capacity Evaluation– Pass mark of 70%
3. Financial – Lowest Cost Evaluated bidder

ii) Mandatory Evaluation

The bids shall undergo a general pre-qualification process in order to determine bid compliance to the following mandatory requirements. Tenderers are required to comply to the following requirements, failure to which the firm shall not proceed with the next stage of evaluation: -

NO.	REQUIREMENTS	Pass	Fail
M1	a) Certificate of Registration/Incorporation		
M2	b) Valid Tax Compliance Certificate		
M3	c) Copy of CR12 Certificate showing names and citizenship of directors and shareholding		
M4	Dully filled, signed and stamped business questionnaire		
M5	Dully filled, signed and stamped Form of Tender		

Failure to submit any of the above-mentioned documentation, will lead to disqualification of the firm at the mandatory stage. The bidders that will meet all the mandatory requirements above will qualify to proceed to technical evaluation stage.

iii) Technical Evaluation

ITEM REQUIRED	DETAILS OF ATTACHMENT REQUIRED	
A: TECHNICAL EVALUATION		***60%***
1.) BUSINESS REGISTRATION (20%)	Certificate of incorporation	5%
	CR12	5%
	VAT and Tax compliance certificate-Valid	5%
	NCA Registration (NCA 6 or 7)	5%
2.)PAST EXPERIENCE (20%)	5 Previous relevant jobs with evidence: signed completion certificate, Purchase order, Construction Agreement, Photographs (4 marks each)	20%
3.)PERSONNEL (16%)	Name, Title and qualification of supervisor with construction certificate	4%
	Name, Title and qualification of foreman with construction certificate	4%
	copies of CV, 2 cetificates from recognised institutions (min. 2)	8%
4.)BANK ACCOUNT (18%)	6 months Authenticated bank statements (3% for each month)	18%
5.)PLANT & EQUIP. (16%)	Name 4 relevan Equipment (1% each)	4%
	Proof of ownership (Logbook, Receipt, or Lease - 3% each)	12%
7.)TIME COMMITMENT (10%)	Work Plan	10%
		(= Total x 60%)
B: FINANCIAL EVALUATION: *Priced BoQ*		**40%**

Bidder (s) are required to attain minimum of 60% score in the technical requirements, failure to which the firm shall not proceed to the next stage of financial evaluation stage.

iv) Financial Evaluation

The bids that qualify at the Technical Capacity evaluation stage will be subjected to financial evaluation to determine the winner. The lowest evaluated bidder will be considered for award of tender.

The score for the Financial Evaluation is 40%.

FORM OF TENDER

TO: _____ *[Name of Employer)* _____*[Date]*

_____ *[Name of Contract]*

Dear Sir,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above-named Works, we, the undersigned offer to construct, install and complete such Works and remedy any defects therein for the sum of KShs. _____ *[Amount in figures]*

   Kenya Shillings_____ *[Amount in words]*

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Project Manager's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Appendix to Conditions of Contract.

3. We agree to abide by this tender until _____ *[Insert date],* and it shall remain binding upon us and may be accepted at any time before that date.

4. Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereof, shall constitute a binding Contract between us.

5. We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this _____ day of _____2022

Signature _____in the capacity of_____

Duly authorized to sign tenders for and on behalf of
_____ *[Name of Employer]*

of_____ [*Address of Employer]*

Witness; Name_____

Address_____

Signature_____

Date_____

TENDER BUSINESS QUESTIONNAIRE

Please fill in block letters.

1. Full names of tenderer

   .....

2. Full address of tenderer to which tender correspondence is to be sent (unless an agent has been appointed below)

   .....

3. Telephone number (s) of tenderer

   .....

4. Email address of tenderer

   .....

5. Name of tenderer's representative to be contacted on matters of the tender during the tender period

   .....

_____

Signature of Tenderer

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Dadaab Area Program

Bills of Quantities & Drawings

for the

"TENDER FOR PROPOSED THREE (3) NEW LABORATORIES FOR JUNIOR SECONDARY SCHOOLS IN DADAAB"

TENDER NO.:

LWF/DDB/EDUC/29342/2023

LOCATION:
Dagahaley, Ifo, and Hagadera

SUBMISSION DEADLINE.:
11th December 2023 - 1700HRS

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	BILL No. 1: SUBSTUCTURES **(ALL PROVISIONAL)** **EXCAVATION AND EARTHWORKS** **BILL No. 1: SITE PREPARATION** ***Clearing site vegetation; grubbing up roots and filling up voids left with selected materials***				
1.1	Bushes ,shrubs, undergrowth or the like and cart away from site	250	SM		
	EXCAVATION				
1.2	Excavate in soft material to remove top vegetable soil, average 200mm deep starting from existing ground level; load and cart away from site	250	SM		
1.3	Excavate in soft material for column bases, not exceeding 1.5m deep starting from stripped level	35	CM		
	Excavating trenches ; to receive foundations starting from reduced level				
1.4	Not exceeding 1.5m deep	90	CM		
	Breaking out existing materials; extra over all kinds of excavations irrespective of depth				
1.5	Excavate pits for pier bases 600mmx600mmx200mm starting from stripped level n.e. 1.5m deep	2	CM		
	DISPOSAL				
1.6	Excavated materials; Backfilling depositing and compacting in layers maximum 150mm thick	70	CM		
	FILLING **BACKFILLING**				
1.7	Return, fill in and ram selected excavated material around foundations	50	CM		
	HARDCORE				
1.8	300mm thick depositing and compacting in layers maximum 150mm thick in making up levels	50	CM		
1.9	50mm Thick quarry dust blinding to surfaces of hardcore (Measured Separately)	172	SM		
	Carried to collection				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	ANTI-TERMITE AND HERBICIDE TREATMENT				
	Apply "termidor 25 EC" solutions or other equal and approved sprayed evenly				
1.10	To surface of fill and tops of foundation wall	172	SM		
	CONCRETE WORK **INSITU CONCRETE: REINFORCEMENT.** **Plain concrete class 15 (mix 1:3:6)**				
1.10	50mm Thick surface blinding; under bases	1	CM		
1.11	Ditto; under strip footings	5	CM		
	Normal: class 20/20mm) vibrated (1:2:4) **as described in**				
1.12	Strip foundations (600mmx200mm)	13	CM		
1.13	100mm thick ground floor slab	18	CM		
1.14	Column Bases	3	CM		
1.15	Concrete ramps	1.5	CM		
1.16	300mmx200mm ground beam	5	CM		
	REINFORCEMENT Supply and fix bars reinforcement including bending hooks, typing wire, cutting spacers and supporting all in position as described				
1.17	10mm Diameter bars in foundation strip	900	KG		
1.18	12mm bars in ground beam	500	KG		
1.19	8mm bars for ground beam links	200	KG		
	fabrics B.S 4483				
1.20	Reference No A 142; mesh 200X200mm weight 2.22kgper square meter (including laps, typing wire spacer blocks in location measured net)	172	SM		
	Carried to collection				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	SAWN FORMWORK TO INSITU CONRETE AS DESCRIBED				
1.21	Vertical sides of column bases	25	SM		
1.22	Vertical sides of column stubs	30	SM		
1.23	Sides of strip footing	70	SM		
1.24	Edges of the floor bed 75 to 150mm wide	70	LM		
1.25	Sloping edges of ramp, 75 to 150mm girth	35	LM		
	FOUNDATION WALLING				
1.26	200mm thick approved natural stone; roughly squared, equal approved plastic sheet laid over mortar (1:4) enforces with hoop iron 500 gauge in every alternate course.	218	SM		
	DAMP PROOF MEMBRANES **Polythene , 1000 gauge, or other equal and approved plastic sheet laid over blinding (measured separately-allow for laps)**				
1.27	Horizontal 1No of layer(s) over 300mm wide	200	SM		
	PLINTH AREA FINISHES ***Render cement and sand (1:3) wood floated***				
1.28	12mm thick cement and sand to concrete or blockwork base (m/s) general external	30	SM		
1.29	Prepare and apply 3 coats of bituminous paint to plastered plinths	30	SM		
	Total Carried to Summary				
	Brought forward from page 1 Brought forward from page 2 From above				
	TOTAL SUBSTRUCTURE CARRIED TO SUMMARY				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	BILL NO. 2: REINFORCED CONCRETE FRAME				
	Vibrated reinforced concrete (1:2:4)class 20/20mm as described				
2.1	Ring beams	8	CM		
2.3	Columns size 200x200mm	4	CM		
	REINFORCEMENT ***High yield steel deformed bar; cold worked B:S 4449 including bends, hooks ,tying wire, distance blocks and spacers in position***				
2.5	8mm diameter stirrups @ 200 mm centers to ring beams and columns	400	KG		
2.6	12mm diameter in ring beams, columns and column bases.	550	KG		
2.7	16mm diameter in columns	70	KG		
	SAWN FORMWORK TO INSITU CONCRETE				
2.7	Horizontal soffits of the ring beam	45	SM		
2.8	Sides of ring beam and column	20	SM		
	TOTAL REINFORCED CONCRETE CARRIED TO SUMMARY				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	BILL NO. 3: WALLING				
	Walling; Natural stonework or blockwork				
	Approved local stone Squared, fine chisel dressed on one side bedded jointed and horizontal recessed key pointing on one side in cement sand (1:4) as work proceeds				
3.1	Walls 200mm thick reinforced with hoop iron gauge 500 in every alternate course	160	SM		
	DAMP PROOF COURSES B.S 743, Type A, bitumen hessian base 150mm, no allowances made for laps				
3.2	200mm wide bedded in cement mortar (1:3)	70	LM		
	TOTAL WALLING CARRIED TO SUMMARY				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	BILL NO. 4: ROOFING				
	ROOF COVERING				
4.1	Gauge 28 pre-painted box profile Blue G.C.I roofing sheets fixed to purlins (measured separately)	190	SM		
4.2	Gauge 28 pre-painted ridge ship cap	17	LM		
	CARPENTRY				
	STRUCTURAL TIMBERS				
	Wrot cypress prime grade (treated with wood preservative)				
4.3	75x50mm purlins	190	LM		
4.4	100x50mm wall plate bedded in cement :sand (1:3) mortar bolted to concrete with and including 16mm dimeter bolts cast in concrete at 1000mm centers (Refer to drawings)	84	LM		
4.5	100x50mm Tie or Strut	105	LM		
4.6	100x50mm Rafters	160	LM		
4.7	Ditto tie beam	95	LM		
4.8	Ditto king post	45	LM		
4.9	200x25mm fascia board and barge board	60	LM		
	Fittings and fastenings				
4.9	Straps	100	NO		
4.9	Bolts	320	NO		
	TOTAL FOR ROOFING CARRIED TO SUMMARY				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	BILL NO. 5: WINDOWS AND CABINETRY *All windows to be supplied and fixed as per the details and schedule provided. All iron Mongery and glazing shall be priced together with the corresponding window. All iron mongery sample to be provided for approval before final installation* Supply and fix the following purpose-made steel casement windows in 50x50x3mm RHS framing rawl bolted to walls and 40x30x3mm 'T' section casements; complete with pin type hinges and locks, brass fasteners and stays where indicated on the schedules; 6mm thick clear/obscure glazing in sub-divided glass panes; prepare and apply one coat shop primer before fixing; all to Engineer's details and approval				
5.1	Window overall size 1800 mm wide x 1500 mm high; comprising 1 No. fixed grilled panel overall size 600 mm wide x 1500mm high and 2no. Side hung panes overall size 600 mm wide x1500mm high	6	NO		
5.2	Window overall size 900 mm wide x 1500 mm high; comprising 2no. Side hung panes overall size 450 mm wide x1500mm high	2	NO		
5.3	Window overall size 600 mm wide x 1500 mm high; comprising 2no. Side hung panes overall size 300 mm wide x1500mm high	3	NO		
	Steel louvre vents Supply and fix the following purpose-made steel vent windows in 50x50x3mm RHS framing rawl bolted to walls and 40x30x3mm 'T' section casements; complete with mosquito gauze internally; prepare and apply one coat shop primer before fixing; all to Architect's details and approval				
5.5	Steel vent windows overall size 600 mm wide x 600 mm high;	1	NO		
	BUILDING FIXTURES AND FITTINGS 100mm thick in-situ mass concrete class 15/40 (1:3:6) plinths built onto floors; all necessary formwork; 12mm thick cement and sand (1:3) backing to top and edges all to approval; in :-				
5.6	Plinths; under storage cabinets and benches	1	CM		
	Carried to collection				

Project:
Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma

ITEM	DESCRIPTION	UNIT	QTTY	RATE (KES)	AMOUNT (KES)
	50mm thick reinforced in-situ concrete class 20/20 (1:2:4) suspended slab built into walling; all necessary formwork, boxing for sink; 8mm high tensile hot rolled steel reinforcement bars to BS 4449; plastered and painted soffits; plastered and painted 100mm thick support walls; 12mm thick cement and sand (1:3)backing to top and fascia/skirting; in:-				
5.7	Storage tops	1	CM		
5.8	Teacher's preparation worktop	0.1	CM		
5.9	Laboratory worktops/benches	2.5	CM		
	Ceramic tiles **Ceramic tiles finish on worktops including fascia's and skirtings; applied as per manufacturer's instructions; all to engineer's details and approval; in:-**				
5.1	Teacher's preparation worktop	2	SM		
5.11	Laboratory worktops/benches	20	SM		
	Joinery: **Fire Extinguisher cabinet**				
5.12	Supply materials, construct and hoist high level Fire Extinguisher cabinet, overall size 1200x600x900mm high; comprising of 2No-600x900mm high 6mm thick MS plated doors with 370x 700mm high 5mm thick clear glass panel; including 30x30x3mm thick RHS framing. Include all necessary iron mongery and 38mm diameter hardwood knob fixed to each door. Prepare and apply gloss oil paint to metal surfaces.(Refer to drawings for further details)	1	NO		
	Laboratory Desks and seats				
5.13	Desks. Top timber should be 1 inch thick, made from Grevillea wood with wood finish and varnished. It should have a Mild steel frame of 2 inch square tube of 18 gauge, and fully powder coated (dark colored texture or silver color). 60 x 40 mm rubber/plastic shoes should be fixed in structure footing. All corners and edges of top should be chamfered properly sanded, finished with wooden primer and synthetic clear varnish as per the material used for making top. (Refer to drawings for further details)	6	NO		
5.14	Laboratory benches (Refer to drawings for further details)	50	NO		
	Carried to collection				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	PAINTING AND DECORATION Prepare touch up primer and apply one under coat of grey rust inhibiting paint and two finishing coats of gloss crown paints or equal approved				
5.20	Window surfaces over 300mm girth internal	65	SM		
	Carried to collection				
	COLLECTION Brought forward from page 7 Brought forward from page 8 From above				
	TOTAL FOR WINDOWS AND CABINETRY CARRIED TO SUMMARY				

Project:

Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma

ITEM	DESCRIPTION	UNIT	QTTY	RATE (KES)	AMOUNT (KES)
	BILL NO. 6: DOORS				
	STEEL DOORS				
	Standard double opening frames 25mm x25mmx3mm, 18G MS Plate cover and 40mmx40mmx3mm external frame door complete with all necessary iron mongery, permanent vent with mosquito gauze & sheet hood assembled and fixed to opening including cutting and pinning to concrete or blockwork surround and bedding frame in cement sand (1:4) all primed with red oxide before fixing (see attached drawing)				
6.1	Overall size 1000x2400mm external doors	2	NO		
6.2	Double door 1500x2400mm external doors	2	NO		
6.2	Double door 1500x1000mm external doors	1	NO		
	Supply and fix 900 mm high balustrading fabricated from 2mm thick mild steel sections; comprising of 50 mm diameter mild steel handrail welded to vertical balusters ; 2 No. 15mm diameter intermediate round bar rails welded to 35mm dia vertical balusters at approximately 200mm centers; and fixed at the bottom to 2 No. raw bolts grouted into concrete or masonry (m.s);all necessary welding and grinding welds smooth; including priming with red oxide primer before fixing; All to Architect's detail and approval				
6.3	Raking at ramps	27	M		
	Prepare and apply two undercoats of grey oxide and two finishing coats of approved premium quality metal oil paint				
6.4	Railing and balustrading [both sides measured flat]	49	SM		
	DOORS				
	Notes				
	1. All doors to be supplied and fixed as per the details and schedule provided. All iron Mongery and glazing shall be priced together with the corresponding door. All iron mongery and door sample to be provided for approval before final installation				
	Door frames, Architraves etc.				
6.5	Door frames with two labors plugged, size 150x50mm	12	M		
6.6	Molded architrave, size 50x20mm	12	M		
6.7	Quadrant beading, size 20mm	12	M		
	Carried to collection				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	Timber doors Supply and fix into position 48mm Thick solid core door; hardwood lipping all edges; including 900x300mm fanlight infilled with 6mm clear glass; solid blocking for ironmongery; ironmongery as per UNION-ASSA ABLOY catalogue or other approved equivalent; All to Architect's approval and detail drawings				
6.8	Single door overall size 900x2400mm high	2	NO		
	Painting and Decorations for wooden doors Prepare and apply one coat of aluminum wood primer before fixing on woodwork to:-				
6.9	Back of wood not exceeding 100mm girth	20	M		
6.10	Ditto but over 100mm but not exceeding 200mm girth	20	M		
	Prepare and apply two coats of matt polyurethane varnish to 'Crown' paints or equal and approved :-				
6.11	Wood surfaces, not exceeding 200 to 300mm girth	40	M		
6.12	Ditto, 200 to 300mm girth	20	M		
6.12	General surfaces	12	SM		
	PAINTING TO STEEL DOORS Prepare touch up primer and apply two under coats of grey rust inhibiting paint and two finishing coats of gloss oil paint				
6.13	Door surfaces, both sides measured flat	17	SM		
	Carried to collection				
	COLLECTION Brought forward from page 10 From above				
	TOTAL DOORS, RAILS AND PAINTING CARRIED TO SUMMARY				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	BILL NO. 7: FINISHES **Note: Contractor to provide all samples for approval before incorporation into the final works.**				
	FLOOR AND WALL FINISHES				
7.1	25mm thick colored cement sand (1:4) m/s	140	SM		
	WALLS				
7.2	12mm thick ,2NO. Coat work plaster 1:3:6: to concrete or block work base (m/s) generally, walls internal steel trowelled	250	SM		
7.3	Key pointing to external wall surface as described	160	SM		
7.4	15mm thick 2 NO coat work cement sand (1:4) render to concrete or blockwork base externally including columns and eaves	50	SM		
	PAINTING AND DECORATION THREE COATS PVA BASED EMULSION PAINT TO CROWN PAINTS OR EQUAL AND APPROVED				
7.5	Supply and apply approved quality undercoat and 3 coats of soft white Emulsion paint , (**quality crown SUPER PREMIUM GRADE silk vinyl soft-white**).Rendered wall surfaces Externally and eaves	120	SM		
7.6	Supply and apply approved quality undercoat and 3 coats of soft white Emulsion paint , (**quality crown SUPER PREMIUM GRADE silk vinyl soft-white**).Plastered wall surfaces Internally	160	SM		
7.7	Supply, prepare and apply approved quality undercoat and 3 coats of approved premium super gloss paint as "crown" or any other equal and approved paint to columns and beam, external.	16	SM		
7.8	Supply and apply quality 3 coats of approved premium super gloss bituminous paint to all 200mm skirtings (both internal and external)	30	SM		
	PRIME COSTS AND PROVISIONAL SUMS				
7.9	Allow for introduction of blackboard size 5x1.2m and properly finished with blackboard paint, 2 per class (note the board on the front section will be molded 15mm thick from the wall surface)	1	NO		
	TOTAL FINISHES CARRIED TO SUMMARY				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	BILL NO. 8: MECHANICAL INSTALLATIONS				
	SANITARY FITTINGS Supply, deliver and install the following appliances including their support brackets, screws etc. Where necessary items such as mastic, silicon, grouting etc. must be included in the rates. All connections to water supply, waste/soil drainage and electrical power supply are to be the responsibility of the contractor and must be priced for.				
	Laboratory Sink				
8.1	''Vulcathene'' code V260420 chemical resistant laboratory sink, size 445x342x140mm complete with undercounter mounting accessories	11	NO		
8.2	Valtrex Lab line'' Ref VG 810078 or approved equivalent bench mounted laboratory mixer tap with swivel swanneck, wrist action levers and aerator	11	NO		
8.3	"Vulcathene" Ref. 504 1½" slotted waste, 60 mm diameter flange, 102 mm long shank, with two waste gaskets to suit Vulcathene sink outlet	11	NO		
8.4	Vulcathene code W561 or equal and approved 40mm ant syphon bottle trap complete with waste and accessories	11	NO		
	Dilution Recovery Trap				
8.5	'Vulcathene'' or equal and approved model W612 under sink mounted dilution trap of capacity 2.3 Liters. Dilution trap to be complete with inlet connection to upstream pipework, outlet connection with adaptor for connection to downstream UPVC pipework as well as bolted cover.	11	NO		
8.6	Allow for a circular Drip Cup molded with an internal grating and complete with backnut. As Vulcathene Ref. No. 50 or equal and approved equivalent	11	NO		
	INTERNAL PLUMBING (COLD WATER)				
8.7	1000 L plastic water tank in the ceiling as Kentank or equivalent	1	NO		
8.8	Water booster pump as Pedrollo Pkm60 pump or equivalent	1	NO		
8.9	Automatic pump controller as Pedrollo or equivalent	1	NO		
	Carried to collection				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	Supply, deliver and install plastic PP-R 80 PN 16 pipes to specs. Tenderers must allow in their pipework prices for all the couplings, connectors, unions, nipples, sockets, end caps, bridges, expansion loops, jointing materials etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, collars, holderbats plugged and screwed, and pipe sleeves through structural members.				
8.10	15 mm diameter PPR-PN 16 pipe.	25	LM		
8.11	20 mm diameter PPR-PN 16 pipe	35	LM		
8.12	25 mm diameter PPR-PN 16 pipe	20	LM		
8.13	32 mm diameter PPR-PN 16 pipe	12	LM		
8.14	50 mm diameter PPR-PN 16 pipe	30	LM		
	Extra Over PP-R fittings as follows:-				
8.15	15 mm outer diameter elbow, 90°/45°	36	NO		
8.16	20 mm ditto	5	NO		
8.17	25 mm ditto	2	NO		
8.18	32 mm ditto	1	NO		
8.19	50 mm ditto	1	NO		
8.20	20mm outer diameter equal tee	15	NO		
8.21	25mm ditto	2	NO		
8.22	20x15mm outer diameter PP-R reducing piece.	20	NO		
8.23	25x20mm ditto	1	NO		
8.24	25x15mm ditto	2	NO		
8.25	50x32mm ditto	1	NO		
8.26	20mm x ½" diameter PP-R male/female transition piece round/hexagonal.	3	NO		
8.27	25mm x ¾" ditto	1	NO		
8.28	32mm x 1" ditto	1	NO		
8.29	50mm x 1¼" ditto	1	NO		
	Gate Valves 25 mm diameter high pressure screw-down full way non-rising stem, solid wedge disc "Pegler" gate valve (PN 16) with wheel head and joints to steel tubing complete with matching diameter GMS union.				
8.30		2	NO		
8.31	32mm diameter ditto	2	NO		
8.32	50mm diameter ditto	1	NO		
	Non-return valves				
8.33	50mm diameter BS 5154 Series B non-return valve, PN25 pressure rating. To be as "Pegler" or equal and approved	1	NO		
8.34	32mm ditto	1	NO		
8.35	25mm ditto	1	NO		
	Stand pipe tap				
8.37	Cobra Watertech 15mm diameter heavy duty rough brass hose bib tap with hose union complete with 1200mm long GMS standpipe.	2	NO		
	Carried to collection				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	Valve Chamber				
8.38	300x300x400mm deep concrete valve chamber complete with cover to the satisfaction of the Civil Engineer	1	NO		
	LABORATORY DRAINAGE				
	Supply, deliver and install plastic Vulcathene pipework manufactured from co-polymer polypropylene with 3% carbon black ultra violet stabilizer according with BS EN ISO 9001. Where necessary items such as mastic, silicon, grouting etc. must be included in the rates. All connections to the dilution tanks are to be the responsibility of the contractor and must be priced for.				
	''Vulcathene code W001'' or equal and approved Laboratory Waste System Pipework				
8.39	40mm diameter waste pipe	14	M		
8.40	50 mm ditto	14	M		
8.41	100mm ditto	15	M		
	Extra Over Vulcathene Tubing for the following:-				
8.42	40mm diameter 90°/135° Sweep Bend	36	NO		
8.43	50 mm ditto	17	NO		
8.44	100x50mm diameter 90°/135° Sweep Tee	12	NO		
8.45	40mm diameter equal Sweep Tee	17	NO		
8.46	50 x 40mm diameter Socket Reducer	17	NO		
8.47	50 mm diameter Access Plug	17	NO		
8.48	50 mm ditto	17	NO		
8.49	50mm Diameter Line Coupler	34	NO		
8.50	50mm ditto	17	NO		
	LABORATORY DRAINAGE				
8.51	450 mm x 600 mm masonry manholes complete with medium duty cast iron cover and frame to BS 497 and 556 (Refer to Drawings)	4	NO		
8.52	Provide heavy duty Upvc sewer pipe	20	M		
8.53	Trench work for sewer pipe	20	M		
8.54	Excavation and ground preparation for cess pit	20	CM		
8.56	Construction of cess pit including supply of all fittings as per the drawings (Refer to Drawings)	1	NO		
	PORTABLE FIRE FIGHTING EQUIPMENT				
8.57	5kg Carbon Dioxide & dry (chemical) powder type fire extinguishers conforming to BS EN 3	2	NO		
	Carried to collection				
	Brought forward from page 13 Brought forward from page 14 From above				
	TOTAL MECHANICAL INSTALLATIONS CARRIED TO SUMMARY				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	BILL NO. 9: ELECTRICAL INSTALLATION Allow for testing and commissioning of all the electrical installation systems as per approved working drawings, specifications and bills of quantities to the entire satisfaction of the Engineer				
	Lighting Supply, install, connect, test and commission complete lighting fixture, including all supports, lamps, suspensions, clamps, switchgears, internal conductors and/or cables, and all other accessories necessary as per drawings, specifications and related standards.				
9.1	**Type D:** 4 Feet LED light fitting	12	NO		
9.2	**Type C**-18 Watts recessed LED panel downlighter with 185mm diameter cut-out.	5	NO		
9.3	**Type SL-** 22w LED Bulkhead massive Sussex CAT 81657/01/30	10	NO		
9.4	**Type EXIT**:Utra-slim white aluminum bodied, non-maintained LED Exit sign with 3hrs autonomy	2	NO		
	Cables, Cable pathways and Conduits Supply, install, test and commission 450/750 volts 6491X cables with all required accessories for proper installation and operation including conduits, pipes(each cable in separate conduit or pipe), cable lugs, ties... etc. as shown on drawing, as per the preamble, the specifications and supervision engineer's requirements. All drawing from distribution boards				
9.5	Supply, install and connect complete 3x1.5 sq. mm color-coded SC cables to internal lighting points/switching boxes/distribution board drawn in Concealed /surface 20mm HG PVC conduits, complete with draw boxes, switch boxes and other necessary accessories.	15	NO		
9.6	Supply, install and connect complete 3x1.5 sq. mm color-coded SC cables to external lighting points/distribution board drawn in Concealed /surface 20mm HG PVC conduits, complete with draw boxes, switch boxes and other necessary accessories.	5	NO		
9.7	Supply, install and connect complete 3x2.5 sq. mm color-coded SC cables to socket power points drawn in ring and within Concealed /surface 25mm HG PVC conduits, complete with draw boxes, switch boxes and other necessary accessories.	10	NO		
	Light Switches and shallow Pattress Boxes **Supply, install and connect 240V, 50Hz, 10A lighting switch outlet plate as MK or equal and approved**				
9.10	1 gang 1 way	3	NO		
9.11	2 gang 2 way	2	NO		
9.12	Dusk-to-Dawn photocell as Thorn QPK or equal and approved	1	NO		
	Carried to collection				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	Power sockets and deep Pattress Boxes, Isolators and DP Switches				
	Supply, install, test and commission the following power sockets as shown on drawing, as per the preamble, the specifications and supervision engineer's requirements.				
9.13	Supply, install and connect 13Amp switched double socket outlets for normal power as Carl and Gilberts or equivalent	6	NO		
9.14	Supply, install and connect 13Amp switched double socket outlets for normal power (high level) as Carl and Gilberts or equivalent	8	NO		
9.15	Voice and data points comprising 25mm conduit, draw wire and end box and blanked	1	NO		
	Distribution Boards				
	Supply, install, connect, testing and commission the following final distribution boards, distribution terminal blocks according to drawings, specifications and relevant codes and as Merlin Gerin or equal and approved				
9.16	Supply, install, connect-up complete 63 Amp 6 way TP/N main Distribution Board as Merlin Gerin or equal and approved for normal power supply, for main DB-KI complete with integral isolator as specified	1	NO		
	Supply, install, test and commission miniature circuit breakers (MCBs) rated at 500Vac for above items with 10KA short circuit current according to schematics, specifications and relevant codes and as Havells or equal and approved				
9.17	10A (SP)- 30mA	4	NO		
9.18	20A (SP)- 30mA	6	NO		
9.19	30A (SP)- 30mA	5	NO		
9.20	Blanking plates for items above(SP)	5	NO		
	Earthing				
9.21	Supply and install earthing for the meter board comprising 25x3mm copper tape lead, 1800mm long x 15mm diameter copper earth electrode as Furse or equal, 300mm x 300mm x 300mm deep concrete inspection earth pit with removable cover, 600mm x 600mm copper mat, soil conditioning agents necessary to achieve earthing value below 10-Ohms and all other necessary accessories	1	SUM		
	Carried to collection				
	Brought forward from page 16 From above				
	TOTAL ELECTRICAL INSTALLATIONS CARRIED TO SUMMARY				

Project:

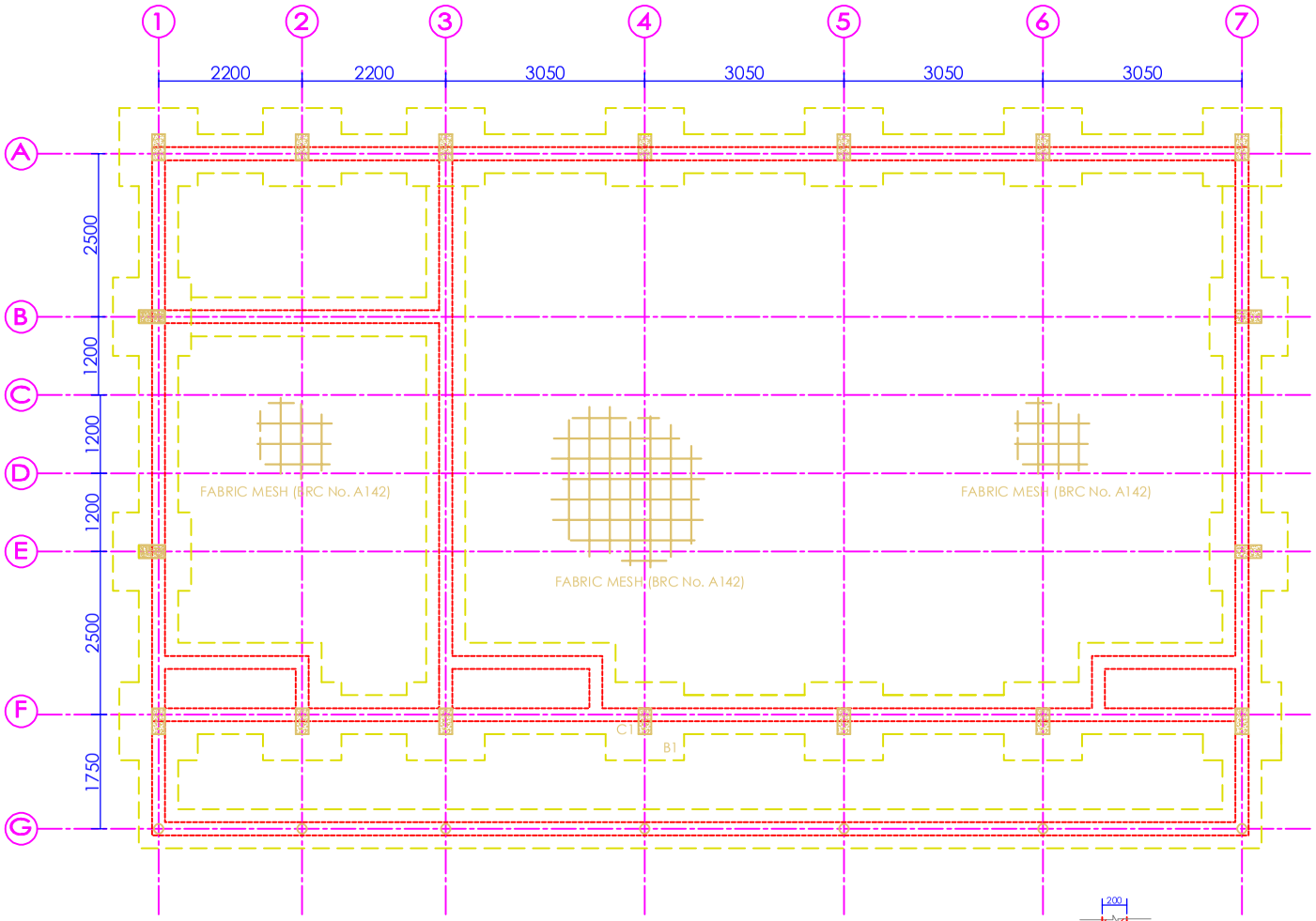
Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma

ITEM	DESCRIPTION	UNIT	QTTY	RATE (KES)	AMOUNT (KES)
	BILL NO. 10: LABORATORY L.P. GAS INSTALLATION				
	Supply, install, test and commission the following materials and equipment's; Prepare & submit draft and three final copies of operation & instruction manuals to Engineer's approval				
	Pipe work and fittings: Seamless Schedule 40 black Carbon steel pipes.				
10.1	15mm ø Schedule 40 pipe	30	M		
10.2	32mm ø PVC Pipe Sleeve	20	M		
	Elbows				
10.3	15mm ø Weld on elbows	7	NO		
	Ball Valves				
10.4	15 mm ball valve	5	NO		
	Tee				
10.5	15mm diameter tee	3	NO		
	Hex Nippal				
10.6	15mm diameter SCH 40 Hex Nippal	5	NO		
	Union				
10.7	15mm diameter union	4	NO		
	Angle Brackets and Anchoring Pipe Supports				
10.8	Mild steel angle brackets, Drop in anchors, clips complete with anchoring rawl bolts, nuts and painted with 2 coats of super gloss paint.	5	NO		
	Gas Outlet and Detection System				
	Copper tubes to B.S 2871 Part 1 with Brass capillary or compression fittings to B.S 864:1983				
10.9	6/8 Copper Tubing.	60	M		
10.1	10/12 Copper Tubing.	2	M		
	Extra Over Copper Tubing for the Following Fittings				
10.11	6/8 x15mm Brass Adaptor.	24	NO		
10.12	10/12 x15mm Brass Adaptor.	2	NO		
10.13	6/8 Copper Tee.	26	NO		
10.14	Copper Clip.	50	NO		
10.15	Pressure Gauge.	1	NO		
10.16	Pole connector.	1	NO		
	Carried to collection				

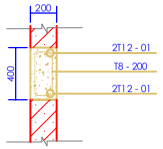
	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	Pressure Regulator				
10.16	High pressure regulator as "Rego" or equal approved by the engineer	1	NO		
10.17	Low pressure regulator as "Rego" or equal approved by the engineer	1	NO		
	LPG Bulk Tank and accessories				
10.18	500 Kg Horizontal above ground L.P Gas storage tank complete as specified and with filling valve, content gauge, multi valve, safety valve, drain plug, and all complete with factory protective paint finish. Tank to be as "Antonio Merlone" or equal approved by the engineer	1	NO		
10.19	Initial refill of LPG Tank	500	KG		
10.2	Earthing for the tank	1	ITEM		
	Gas cage				
10.21	Supply materials and construct gas cage complete as per details provided in the drawings; including all necessary excavation works	1	ITEM		
	Laboratory Bench Gas Outlets				
10.22	Valtrex Lab line two-way bench outlets spaced at 90 degree as model VL 2601/D. Tap should be lift turn to open in operation	15	NO		
10.23	Supply and install a no-smoking sign with the writing L.P GAS: NO SMOKING OR NAKED LIGHTS.	2	NO		
	Bunsen burners				
10.24	High Quality Bunsen Burners, with nickel-plated, die-cast zinc bases. Burners to feature aluminum mixing tubes and serrated gas inlet connections, complete with Air Regulators and flame stabilizers	15	NO		
	Carried to collection				
	COLLECTION Brought forward from page 18 From above				
	TOTAL FOR LABORATORY L.P. GAS INSTALLATION				

	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	BILL NO. 11: CONTINGENCIES & PROVISIONAL SUM				
1	Provide a Provisional Sum for the supply and installation of solar system (measured separately to suit Laboratory installations)				
2	Provide a Provisional Sum for general landscaping and external works				
3	Provide a Provisional Sum for Signage, Doors & cabinets Tags and Visibility as provided (GoK, PRM, UNHCR & LWF)				
4	Provide a Provisional sum for general preliminaries (e.g. site hoarding, storage, first aid kit, PPE, fire extinguishers, notice board with appropriate notice, etc) relevant in the industry and compliant to: - (a) Safety Standards for Schools in Kenya (b) Basic Education Act No 14 of 2013 (c) Public Health Act (Cap 242) (d) Occupational safety and Health Act 2007 (+ subsidiary legislation) (e) Environmental Management and Coordination Act 1999 + subsidiary legislation (f) Ministry of Public Works - Building Regulations and Standards (Building Code 1968) (g) Physical and Land use Planning Act, 2019 (h) Standards and Guidelines for WASH Infrustructure in pre-primary and primary schools				
	TOTAL FOR CONTINGENCIES & PROVISIONAL SUM				

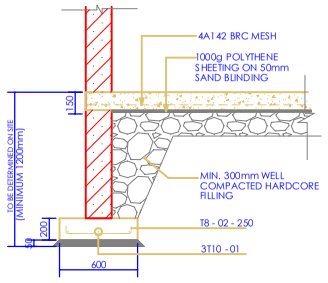
	Project: **Proposed New stand alone Laboratory for JSS in Dadaab & Kakuma**				
ITEM	**DESCRIPTION**	**UNIT**	**QTTY**	**RATE (KES)**	**AMOUNT (KES)**
	SUMMARY				
1	BILL No. 1: SUBSTUCTURES				
2	BILL NO. 2: REINFORCED CONCRETE FRAME				
3	BILL NO. 3: WALLING				
4	BILL NO. 4: ROOFING				
5	BILL NO. 5: WINDOWS AND CABINETRY				
6	BILL NO. 6: DOORS				
7	BILL NO. 7: FINISHES				
8	BILL NO. 8: MECHANICAL INSTALLATIONS				
9	BILL NO. 9: ELECTRICAL INSTALLATION				
10	BILL NO. 10: LABORATORY L.P. GAS INSTALLATION				
11	BILL NO. 11: CONTINGENCIES & PROVISIONAL SUM				
	TOTAL FOR 1 LABORATORY				



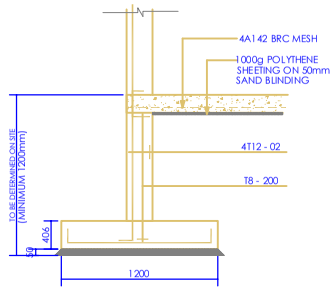
FOUNDATION LAYOUT



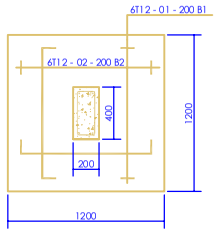
TYPICAL BEAM DETAL



SECT. THRO' EXTERNAL FOOTING

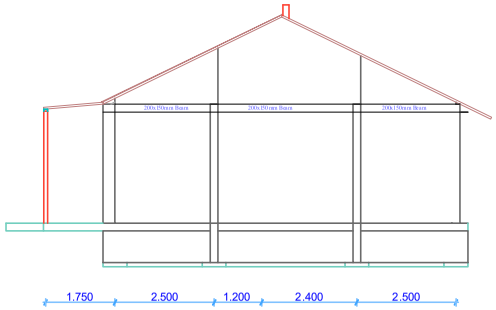


COLUMN BASE B1

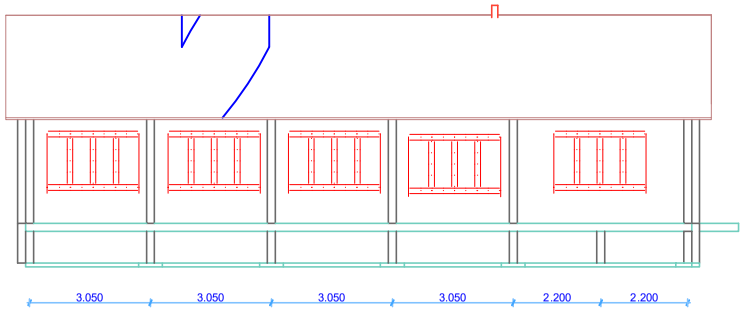


COLUMN C1

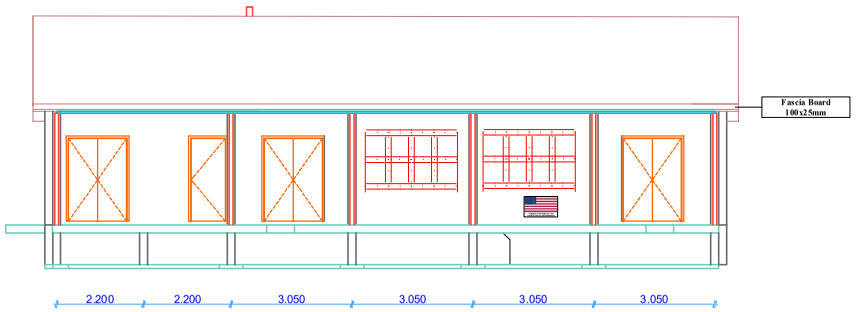
REVISIONS	project: PROPOSED LIBRARY FOR JSS IN DADAAB & KAKUMA (STANDARD DESIGN BY GoK)	drawing title: STRUCTURAL DWGS FOUNDATION LAYOUT FOOTINGS DETAILS COLUMN AND BEAM DETAILS	FUNDING PROVIDED BY THE UNITED STATES GOVERNMENT	IMPLEMENTED BY: THE LUTHERAN WORLD FEDERATION actalliance	scale: NTS	date: October 2023
					design:	checked: GN, JM
					drawn: JCO	sheet no. STR-01
					job no.	revision no.



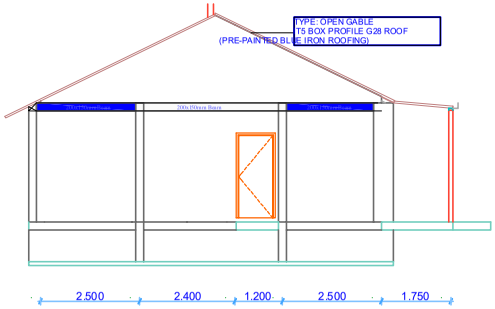
EAST ELEVATION VIEW



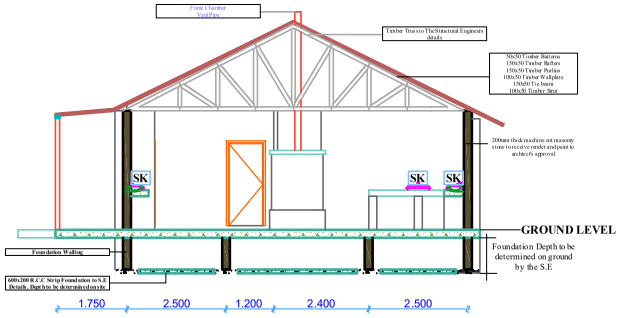
NORTH ELEVATION VIEW



NORTH ELEVATION VIEW



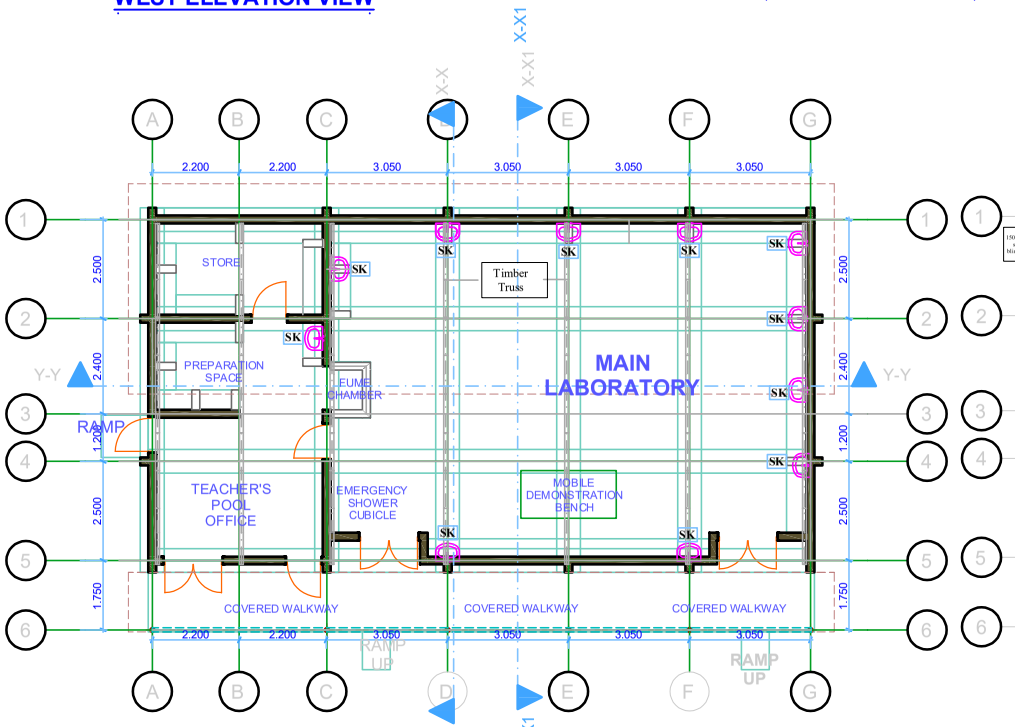
WEST ELEVATION VIEW



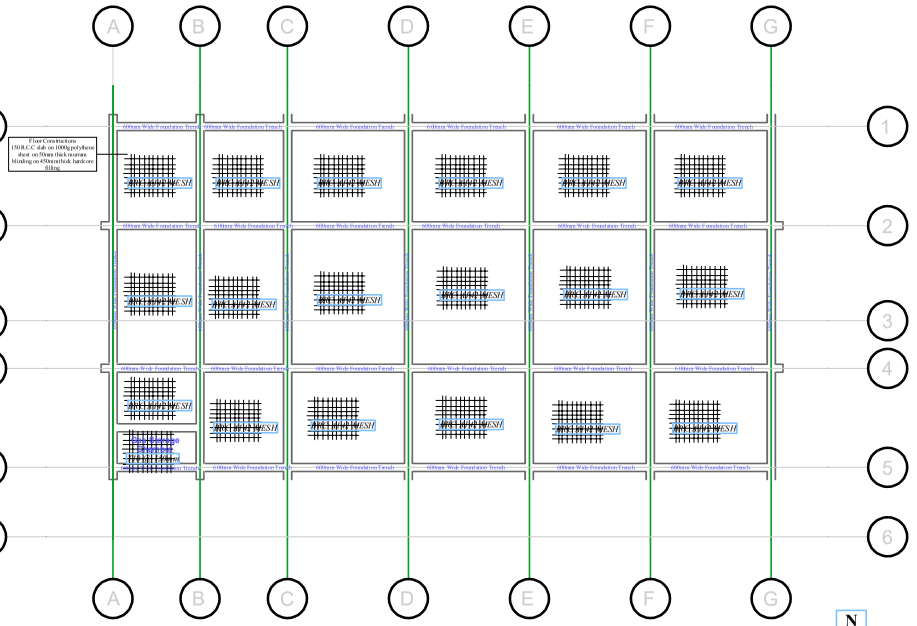
X--X SECTION VIEW

ATTRIBUTE	DIMENSION	NO
EXTERIOR DOUBLE DOOR HEAVY DUTY STEEL DOOR 3-HINGED	1500 x 2100mm	3
EXTERIOR SINGLE DOOR HEAVY DUTY STEEL 3-HINGED	900 x 2100mm	2
INTERIOR DOOR LIGHT DUTY STEEL 3-HINGED	900 x 2100mm	2
STANDARD DOUBLE LEAF STEEL GRILLED	1465 x 2085mm	7

WINDOW & DOOR SCHEDULE



FLOOR PLAN LAYOUT



FOUNDATION LAYOUT CONFIGURATION

GENERAL NOTES:

1. This drawing is protected under the copyright act and cannot be reproduced in part or whole without author's consent.

2. All dimensions are in mm and should be checked on site. Written dimensions rule over scaled dimensions. Any discrepancies to be reported to the architect or project manager before any work commences.

3. All construction work to comply with the latest building codes/K.B.S, Authority by laws and fire regulations.

4. P.V denotes permanent ventilations and must be provided above all doors and windows where shown.

5. All walls should be reinforced with hoop iron at every alternate course.

6. Water Meter to be located 300mm above ground level.

7. D.P.C denotes one layer of bituminous felt to be provided under all walls and should be 150mm above Ground Level.

8. All structural work to Structural Engineer's Details.

9. Heavy duty polythene sheeting and anti-termite treatment to be provided under ground floor slab.

10. All surface beds to be cast on well compacted filling.

11. All pipes and services to be minimum 450mm below reduced Ground level.

12. All inspection chambers within building area and parking areas to have heavy duty double seal airtight covers. Drains under building, driveway, parking to be PVC pipes encased in 150mm concrete surround.

13. All drainage works to be directed to septik tank then finally soak pit.

14. All structural beams are reinfoced with 4 - T10 bars @ 150 c/c with T8 links.

15. The foundation strip footing (bed) is reinforced with 3 T10 bars @200 c/c with T8 stirrups. Shape code to be determined on site by the S.E.

16. S.E denotes Structurural Engineer.

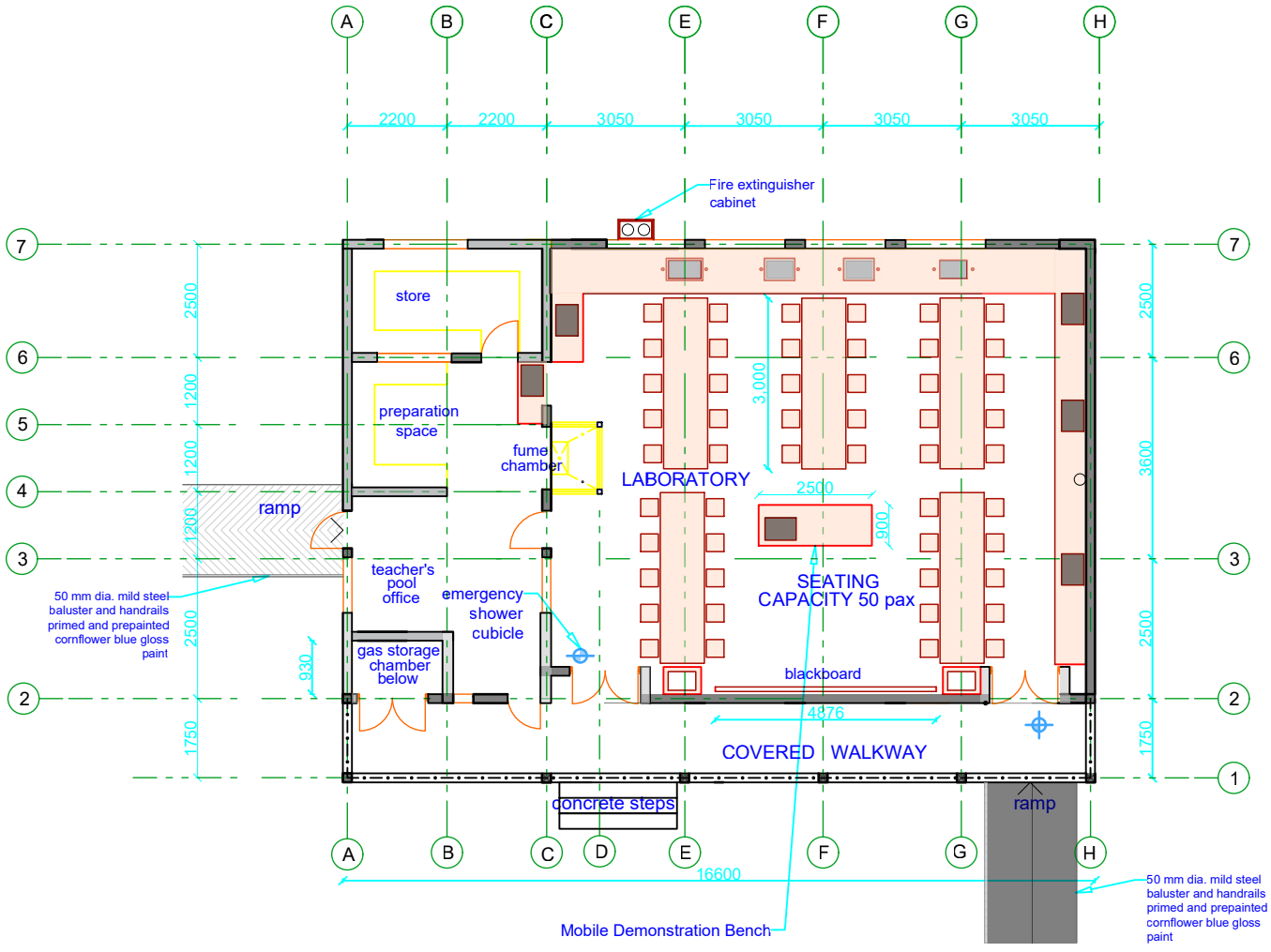
17. The compass direction given in the drawing does not in any way correlate with the world map True North and building orientation is to be determined on site.

18. The contractor should note all plumbing works and be in view that all standard accessories will be provided/installed including necessary slopes for flow of fluids. Therefore allowance and instructions at every stage to ensure no discrepancies is advised.

PROPOSED DESIGN OF STANDARD SCIENCE LABORATORY

THE LUTHERAN WORLD FEDERATION
World Service
UNHCR
The UN Refugee Agency

Gift of the United States Government



GENERAL

1. This drawing to be read in conjunction with all relevant Engineers and Architects drawings
2. The contractor shall check all dimensions on site,any error or ommisions shall be reported to the Engineer before work is commenced
3. The latest amendmend or revision shall superceed all other issues which shall be destroyed.
4. Any discrepancy to be reported to the Engineer/Construction officer before proceeding.

PROJECT: ASPIRE

CLIENT: THE LUTHERAN WORLD FEDERATION

DONOR: US DEPARTMENT OF STATE: BUREAU OF POPULATION, REFUGEES, AND MIGRATION (PRM)

IMPLEMENTING AGENCY: THE LUTHERAN WORLD FEDERATION

CONSTRUCTION OF LABORATORY

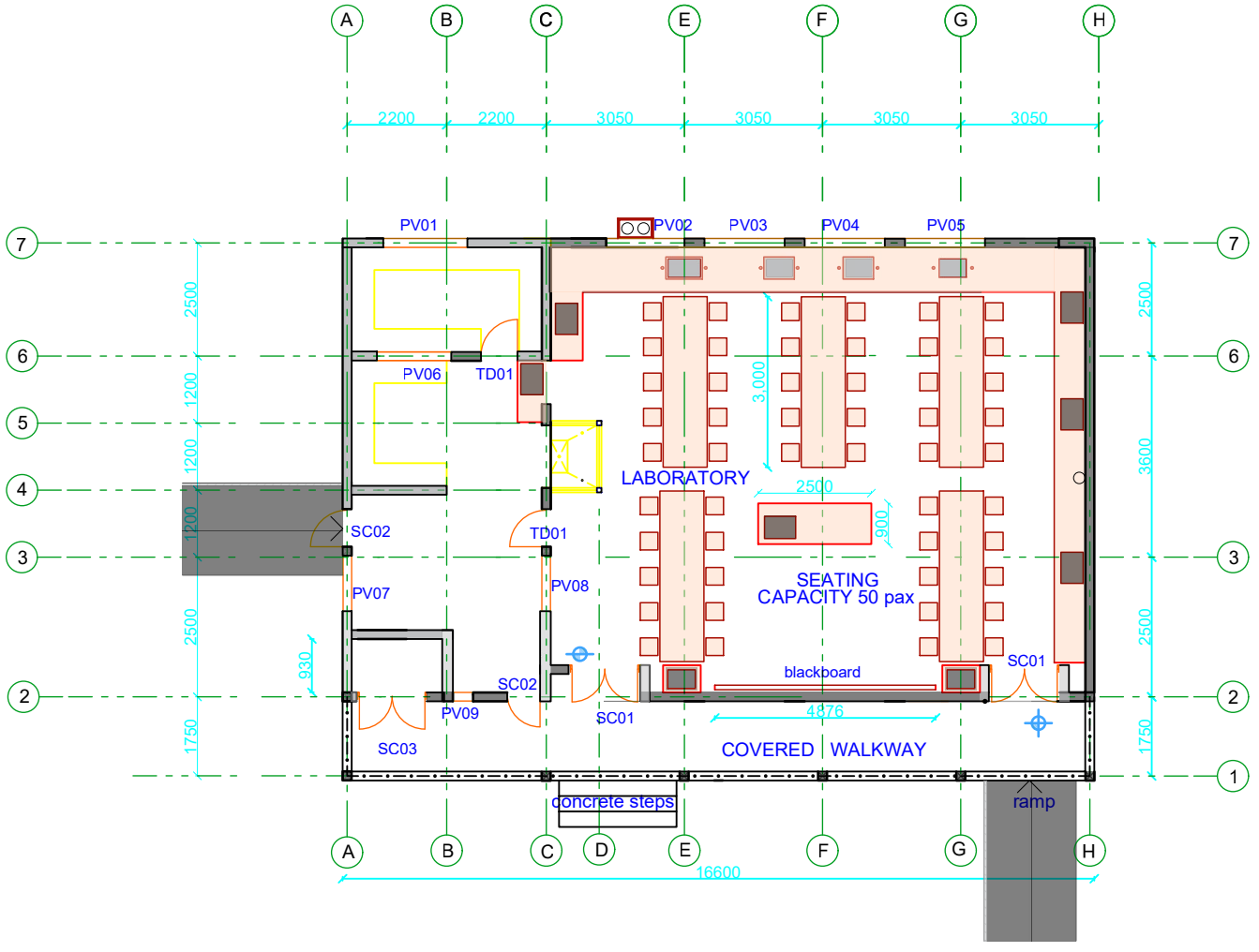
FLOOR FURNITURE LAYOUT & DETAILS

DATE: OCTOBER 2023

DRAWN: L.E CHECKED: C.W

SCALE: 1 : 100

DRAWING NO: AR 01



GENERAL

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PROJECT: ASPIRE

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IMPLEMENTING AGENCY:

THE LUTHERAN WORLD FEDERATION

JOB DESCRIPTION

CONSTRUCTION OF LABORATORY

DOOR & WINDOWS SCHEDULE

DATE: OCTOBER 2023

DRAWN: L.E CHECKED: C.W

SCALE: 1 : 100

DRAWING NO: AR 04