



REPUBLIC OF KENYA

MINISTRY OF PUBLIC WORKS.

PROPOSED INTERGRATED SCIENCE

LABORATORY FOR SIABAI

PRIMARY SCHOOL

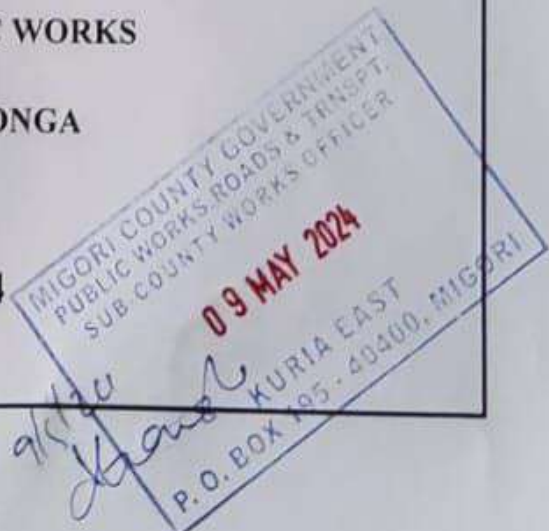
**BILLS OF QUANTITIES**

KURIA EAST SUBCOUNTY WORKS OFFICER

MINISTRY OF PUBLIC WORKS

P.O. BOX 21 KEGONGA

APRILL 2024



ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	INTERGRATED SCIENCE LABORATORY FOR SIABAI PRIMARY SCHOOL				
	<u>ELEMENT NO. 1 SUBSTRUCTURE</u> <u>(ALL PROVISIONAL)</u>				
A	Clear site of all tall grasses, shrubs and grub up roots and burn the arising	168	SM	25	4,200
B	Excavate over site average 150mm deep to remove top vegetable soil and cart away	168	SM	100	16,800
C	Excavate average 150mm deep to reduce levels and cart away	26	CM	200	5,200
D	Excavate foundation trench not exceeding 1.5m deep from reduced level and deposit where directed	38	CM	250	9,500
E	Extra over for excavating in rock irrespective of class	29	CM	1,000	29,000
F	Return, fill and well ram around foundations	62	CM	200	12,400
G	Load and cart away extra excavated materials from site	36	CM	200	7,200
H	Allow for keeping trenches free from water.	Item			5,000
I	Allow for upholding sides of trenches by plunking and strutting	Item			5,000
	<u>Concrete works</u>				
	<u>Mass concrete mix 1:3:6 as described in:-</u>				
J	50mm thick in trenches	38	SM	600	22,800
	<b>Carried to collection</b>			<b>Kshs</b>	<b>117,100</b>

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 1CONT'D</u>				
	<u>Reinforced concrete class 20/20 as described in:-</u>				
A	200mm thick strip foundation	8	CM	14,000	112,000
B	150mm thick floor slab	170	SM	1,400	238,000
	<u>Sawn formwork as described to:-</u>				
C	Sides of floor slab.	54	LM	200	10,800
	<u>High yield square twisted bars to BS 4461 (All provisional)</u>				
D	8mm in foundations	76	KG	200	15,200
E	10mm ditto	112	KG	200	22,400
	<u>Foundation walling</u>				
G	200mm roughly dressed natural stone walling in cement sand mortar	76	SM	1,500	114,000
	<u>Earthworks</u>				
H	300mm hand packed hardcore filling in layers not exceeding 150mm depth	51	CM	800	40,800
I	50mm thick murrum blinding.	170	SM	150	25,500
J	Treat surface of blinded hardcore with insecticides.	170	SM	100	17,000
	<b>Carried to collection</b>			<b>Kshs</b>	<b>595,700</b>

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 1CONT'D</u>				
	<u>Damp proofing</u>				
A	500gauge damp proof membrane.	170	SM	150	25,500
B	200mm wide bituminous damp proof course	65	LM	100	6,500
	<u>Plinth finishes</u>				
C	12mm thick cement sand render in plinths.	9	SM	300	2,700
D	Prepare and apply two coats of black bituminous paint on plinths	9	SM	300	2,700
E	32mm thick sand cement floor finish on floors	86	SM	350	30,100
F	100mm high skirting	119	LM	100	11,900
	<u>Steel posts</u>				
G	75mm diameter steel posts 3000mm long <u>with bottom cast into concrete and with</u> a "U" bracket at the top to hold timber beam	8	N0	3,500	28,000
	<b>Carried to collection</b>			<b>Kshs</b>	<b>107,400</b>
	<b>COLLECTION</b>				
	Brought forward from page ...I,S,L,S 1				117,100
	Brought forward from page ...I,S,L,S 2				595,700
	Brought forward from page above				107,400
	<b>TOTAL FOR ELEMENT NO. 1 SUBSTRUCTURE CARRIED TO SUMMARY</b>			<b>Kshs</b>	<b>820,200</b>

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 2</u>				
	<u>CONCRETE FRAME</u>				
	<u>Reinforced concrete class 20/25 as described in:-</u>				
A	Beams	4	CM	14,000	56,000
	<u>Sawn formwork as described to:-</u>				
B	Sides of beams	39	SM	550	21,450
C	Soffits of ditto	23	LM	150	3,450
	<u>High yield square twisted bars to BS 4461</u> <u>(All provisional)</u>				
D	12mm bars in beams	230	KG	200	46,000
E	8mm bars in beams	105	KG	200	21,000
F	12mm cement sand screed on concrete frame.	39	SM	300	11,700
	<b>TOTAL FOR ELEMENT NO. 2 CONCRETE FRAME CARRIED TO SUMMARY</b>			<b>Kshs</b>	<b>159,600</b>

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 3 WALLING</u>				
	<i>Machine cut, natural stone walling in cement sand mortar (1:3) with 25mm SWG hoop iron after every alternate course.</i>				
A	200mm thick	215	SM	1,600	344,000
B	Ditto to gable ends	39	SM	1,600	62,400
	<u>Sundries</u>				
D	200x225mm high eaves fillings in stonework.	32	LM	200	6,400
E	Seal the joint between roof covering and walling with cement sand mortar.	32	LM	100	3,200
	<u>Wall finishes</u>				
E	15mm cement sand limed plaster trowelled smooth to walls internally	158	SM	300	47,400
F	12mm cement sand render to external walls.	102	SM	300	30,600
	<i>Prepare and apply one undercoat and two coats silk vynil paint to:-</i>				
J	Plastered internal walls	158	SM	300	47,400
	<i>Prepare and apply one undercoat and two coats plastic emulsion paint to:-</i>				
K	Rendered external walls.	102	SM	300	30,600
	<b>TOTAL FOR ELEMENT NO. 3 WALLING CARRIED TO SUMMARY</b>			<b>Kshs</b>	<b>572,000</b>

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 4</u>				
	<u>ROOFING</u>				
	<u>CONSTRUCTION</u>				
	<i>The following in first grade cypress timber, well seasoned and treated with good wood preservative</i>				
A	150x50mm rafters	101	LM	300	30,300
B	150x50mm tie beam	85	LM	300	25,500
C	100x50mm ties and struts	123	LM	200	24,600
D	100x50mm wall plate	33	LM	200	6,600
E	75x50mm purlins	300	LM	200	60,000
F	225x25mm fascia board	59	LM	300	17,700
	<u>Roof covering</u>				
G	28gauge factory painted corrugated galvanized iron sheets.	213	SM	1,200	255,600
H	30gauge factory painted ridge caps	17	LM	500	8,500
	<u>Prepare and apply one undercoat and two coats</u>				
	<u>super gloss paint to:-</u>				
I	Surfaces 200-300mm girth fascia	59	LM	75	2,400
	<b>Carried to collection</b>			<b>Kshs</b>	<b>431,200</b>

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 4 CONT'D</u>				
	<u>Ceiling</u>				
A	50x50mm brandering	360	LM	150	54,000
B	75x50mm ceiling joists	248	LM	200	49,600
C	Supply and fix 12mm thick chipboard ceiling lining.	192	SM	1,100	211,200
D	15x75mm sawn cypress timber cornice	119	LM	100	11,900
	<u>Extra over ceiling for:-</u>				
E	Forming trap door size 600x600mm and positioning in roof space on bearers.	2	N0	1,000	2,000
	<u>Prepare and apply one undercoat and two coats soft white emulsion paint to:-</u>				
F	Ceiling lining	192	SM	250	48,000
	<b>Carried to collection</b>			<b>Kshs</b>	<b>376,700</b>
	<u>COLLECTION</u>				
	Brought forward from page ...I,S,L,S 7				431,200
	Brought forward from page above				376,700
	<b>TOTAL FOR ELEMENT NO. 4 ROOFING CARRIED TO SUMMARY</b>			<b>Kshs</b>	<b>807,900</b>



ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 5 DOORS</u>				
	<b><u>STEEL DOORS</u></b>				
A	Purpose made steel double door size 1200x2400mm high in one coat red oxide primer and two coats gloss oil paint complete with burglar proof bars frame and steel door lock (union).	2	No	15,000	30,000
	<b><u>Glazing</u></b>				
B	4mm thick clear sheet glass and glazing in panes 0 – 0.5m <sup>2</sup> with putty.	1	SM	2,000	2,000
	<b><u>Timber Doors</u></b>				
C	45mm thick semi-solid mahogany paneled door size 900x2400mm high.	3	N0	4,950	14,850
	<b><u>Frames</u></b>				
D	100x50mm thick mahogany timber frame once rebated and moulded one edge.	18	LM	1,000	18,000
E	Ditto but twice rebated.	3	LM	800	2,400
F	50x25mm architrave	18	LM	150	2,700
G	25x25mm quadrant fillet	18	LM	100	1,800
	<b>Carried to collection</b>			<b>Kshs</b>	<b>71,750</b>

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 5 CONT'D</u>				
	<u>IRON MONGERY</u>				
	<u>ALL AS PER UNION CATALOGUE</u>				
A	Three lever mortice lock complete with door furniture.	3	N0	3,500	10,500
B	100mm pressed steel butt hinges.	5	PRS	200	1,000
C	25mm diameter rubber door stop fixed to floor with rawl bolt.	3	N0	150	450
	<u>Prepare and apply three coats of clear varnish paint to:-</u>				
D	Doors overally	12	SM	200	2,400
E	Surfaces 150 – 225mm girth	18	LM	50	900
	<u>Prime only back of frame</u>				
F	Surfaces 150 – 225mm girth	19	LM	50	950
	<b>Carried to collection</b>			<b>Kshs</b>	<b>16,200</b>
	<u>COLLECTION</u>				
	Brought forward from page ...I,S,L,S 8				71,750
	Brought forward from page above				16,200
	<b>TOTAL FOR ELEMNT NO. 5 DOORS CARRIED TO SUMMARY</b>			<b>Kshs</b>	<b>87,950</b>

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 6</u>				
	<b><u>WINDOWS</u></b>				
	<i>Purpose made steel casement windows in one coat red oxide primer and two coats gloss oil paint and complete with burglar proof bars, and locking accessories</i>				
A	Window size 1500x1400mm high.	5	N0	9,000	45,000
B	Ditto size 1500x600mm high.	2	N0	7,500	15,000
B	Ditto size 1500x1000mm high zinc plated steel lovred windows for 150mm blades	5	N0	7,000	35,000
	<u>Glazing</u>				
C	4mm thick clear sheet glass and glazing in panes 0 – 0.5m2 with putty	18	SM	2,000	36,000
	<u>Cill</u>				
D	225x75mm thick weathered concrete window cill reinforced with 8 gauge weld . mesh and including all necessary moulding and formwork and both sides fair fished	20	SM	1,000	20,000
	<b>TOTAL FOR ELEMENT NO. 6 WINDOWS CARRIED TO SUMMARY</b>			<b>Kshs</b>	<b>151,000</b>

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>BUILDING WORKS</u></b>				
	<b>SUMMARY</b>	<b><u>PAGE</u></b>			
1	SUBSTRUCTURE	I,S,L,S3			820,200
2	CONCRETE FRAME	I,S,L,S4			159,600
3	WALLING	I,S,L,S5			572,000
4	ROOFING	I,S,L,S7			807,900
5	DOORS	I,S,L,S9			87,950
6	WINDOWS	I,S,L,S10			151,000
	<b>TOTAL BUILDING WORKS CARRIED TO MAIN SUMMARY</b>			<b>Kshs</b>	<b>2,598,650</b>

ITEM	DESCRIPTION	UNIT	AMOUNT (KSHS)
	<b><u>PRIME COST &amp; PROVISIONAL SUMS</u></b>		
	<b><u>Contingencies</u></b>		
A	Allow a provisional sum of Kenya shillings <b>sixty five thousand</b> (Kshs.65,000) only for <b>contingencies</b>	Sum	65,000
	<b><u>Electrical works</u></b>		
B	Allow a provisional sum of Kenya shillings <b>eighty thousand</b> (Kshs. 80,000) only for <b>Electrical works</b>	Sum	80,000
	<b><u>Project management</u></b>		
C	Allow a provisional sum of Kenya shillings <b>One hundred thousand</b> (Kshs. 180,000) only for <b>project management and supervision</b>	Sum	180,000
	<b><u>Lab Equipments</u></b>		
D	Allow a provisional sum of Kenya shillings <b>seven hundred and fifty thousand</b> (Kshs. 750,000) only for <b>worktops, fume cup board, extraction fan and LPGgas installation</b>	Sum	750,000
	<b>TOTAL FOR PRIME COST &amp; PROVISIONAL SUMS CARRIED TO MAIN SUMMARY</b>		<b>1,075,000</b>

PROPOSED INTERGRATED SCIENCE LABORATORY FOR SIABAI  
PRIMARY SCHOOL

MAIN SUMMARY

ITEM	DESCRIPTION	PAGE	CONTRACTOR SUM	OFFICIAL
A	BUILDING WORKS	11	2,598,650.00	
B	PRIME COST & PROVISIONAL SUMS	PC/1	1,075,000.00	
	<b>SUB TOTAL</b>		<b>3,673,650.00</b>	
<b>GRAND TOTAL INCLUSIVE OF V.A.T</b>			<b>3,673,650.00</b>	

AMOUNT IN WORDS, KENYA SHILLINGS .....

.....

MAIN CONTRACTOR .....

ADDRESS .....

SIGNATURE .....

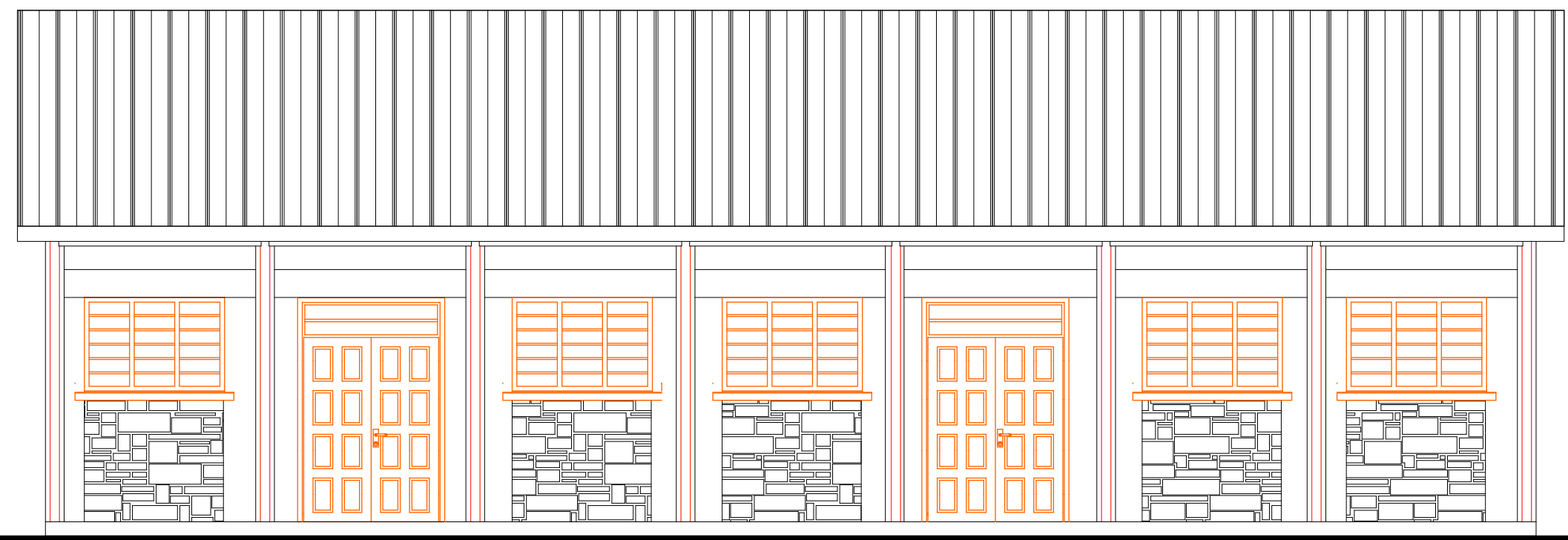
DATE .....

SIGNATURE .....

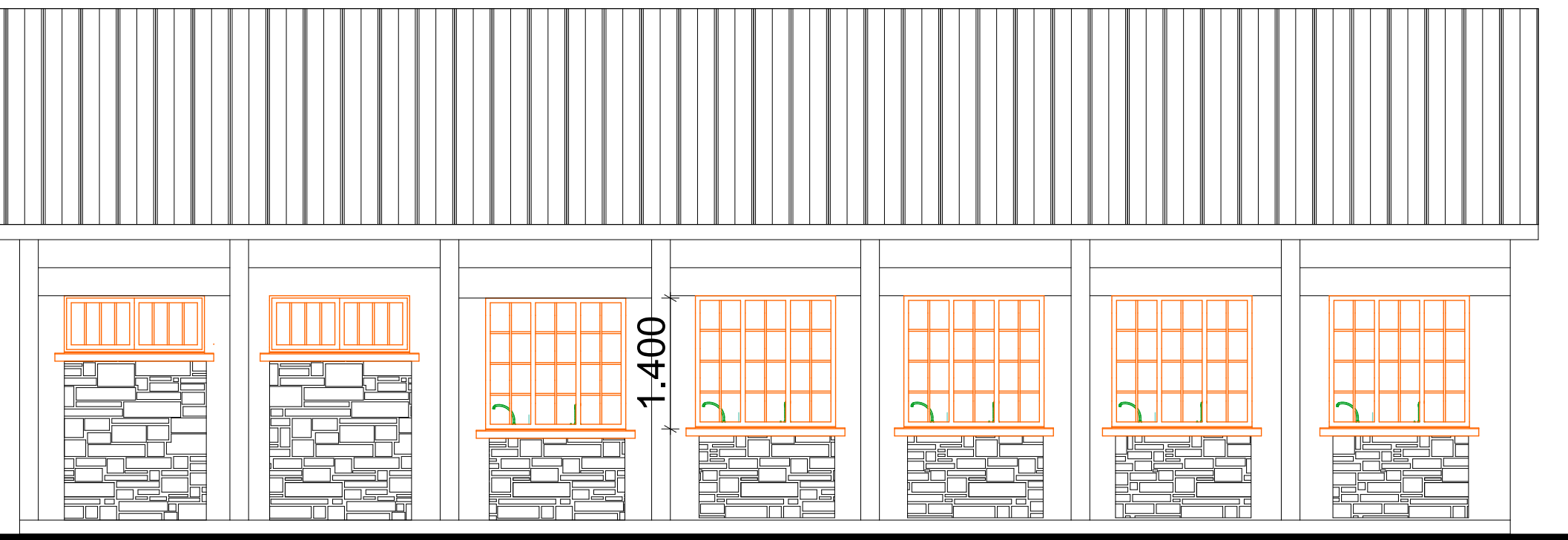
DATE .....

MIGORI COUNTY GOVERNMENT  
PUBLIC WORKS, ROADS & TRNSPT.  
SUB-COUNTY WORKS OFFICER  
**09 MAY 2024**  
KURIA EAST  
P.O. BOX 195 - 40400, MIGORI

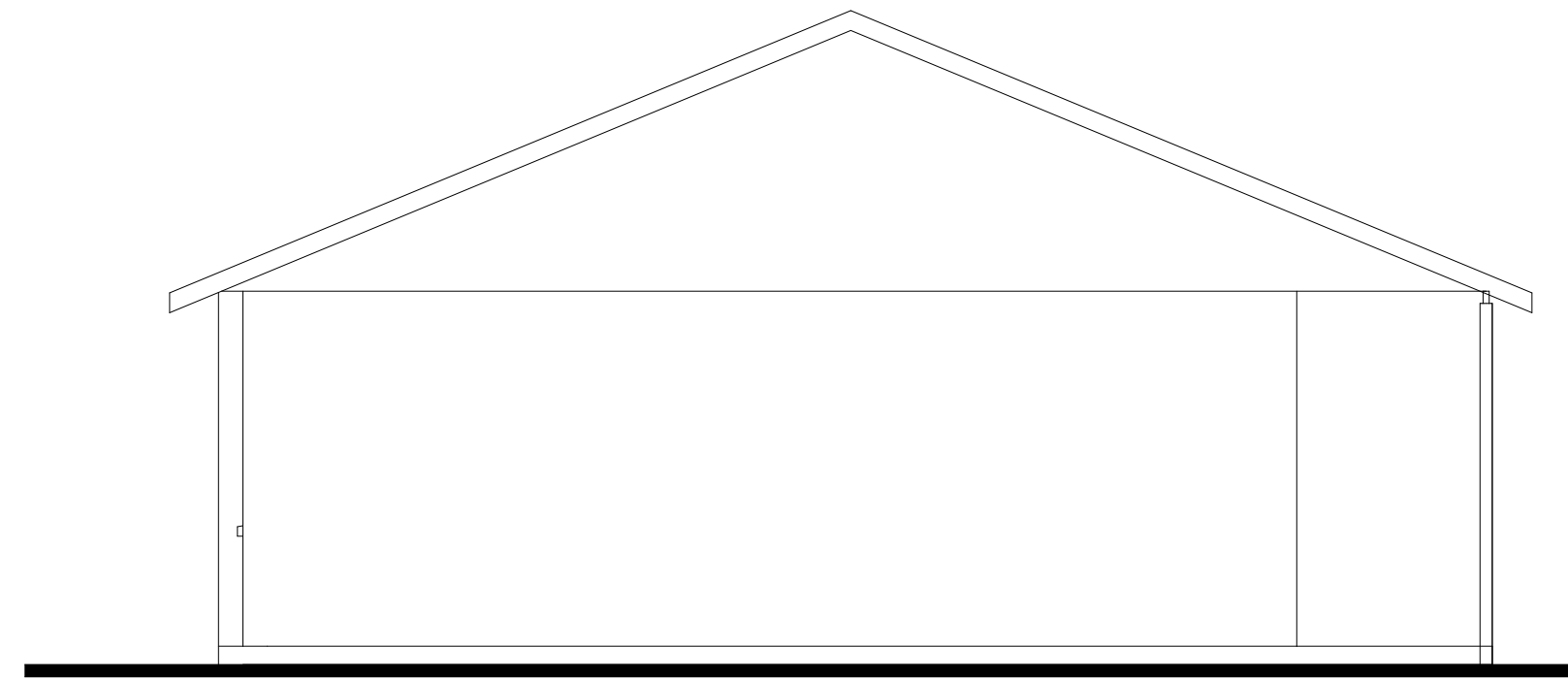
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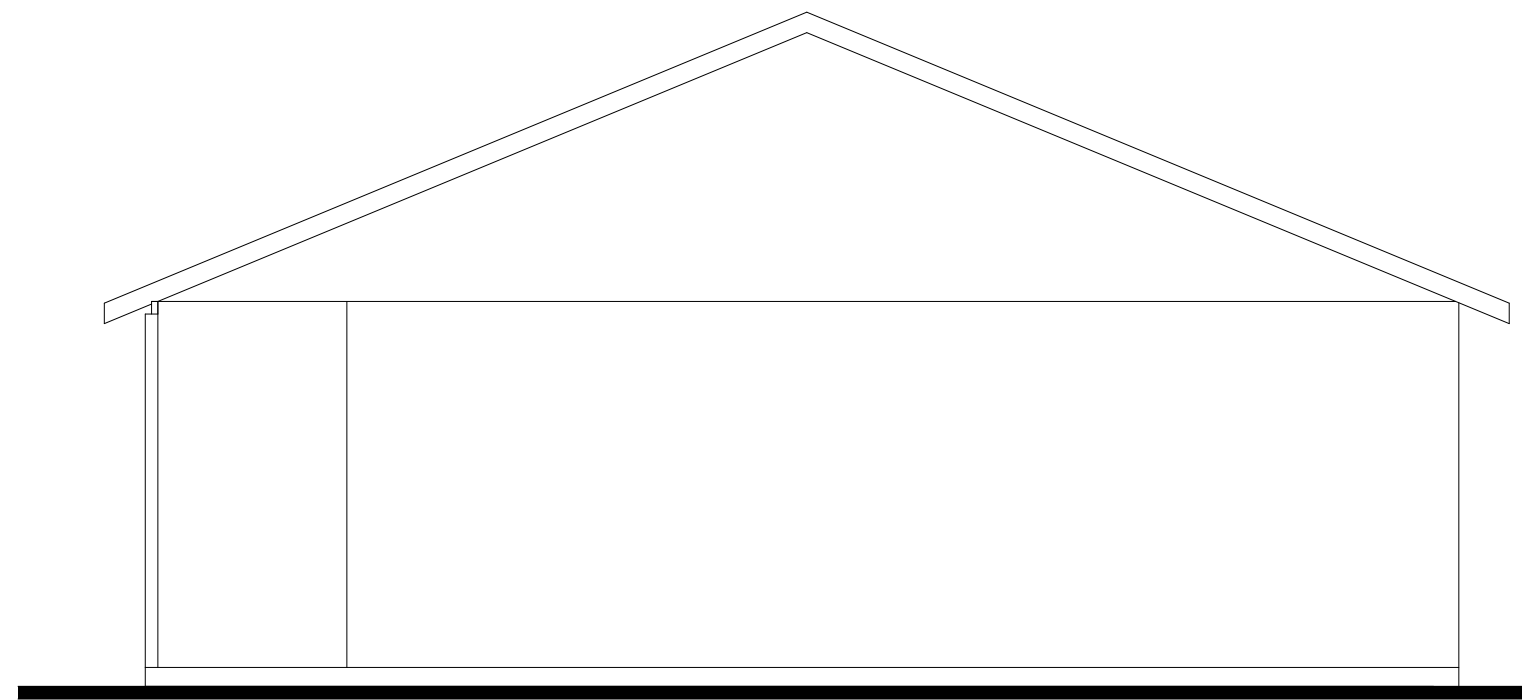
**ELEVATION 01**



**ELEVATION 03**



**ELEVATION 02**



**ELEVATION 04**

Door Schedule		
Element ID	D1	D2
Description	Steel casement window	Steel casement window
3D Elevation		
W x H Size	1,500x2,400	900x2,400
Door head height	2,400	2,400
Quantity	2	3
2D Symbol		
Location		

Window schedule			
Element ID	W1	W2	W3
Description	Steel casement window	Steel casement window	Steel casement window
3D Back View			
W x H Size	1,500x1,400	1,500x1,000	1,500x900
Window sill height	1,000	1,500	1,500
Quantity	5	5	2
2D Symbol			
Location			

**NOTES**

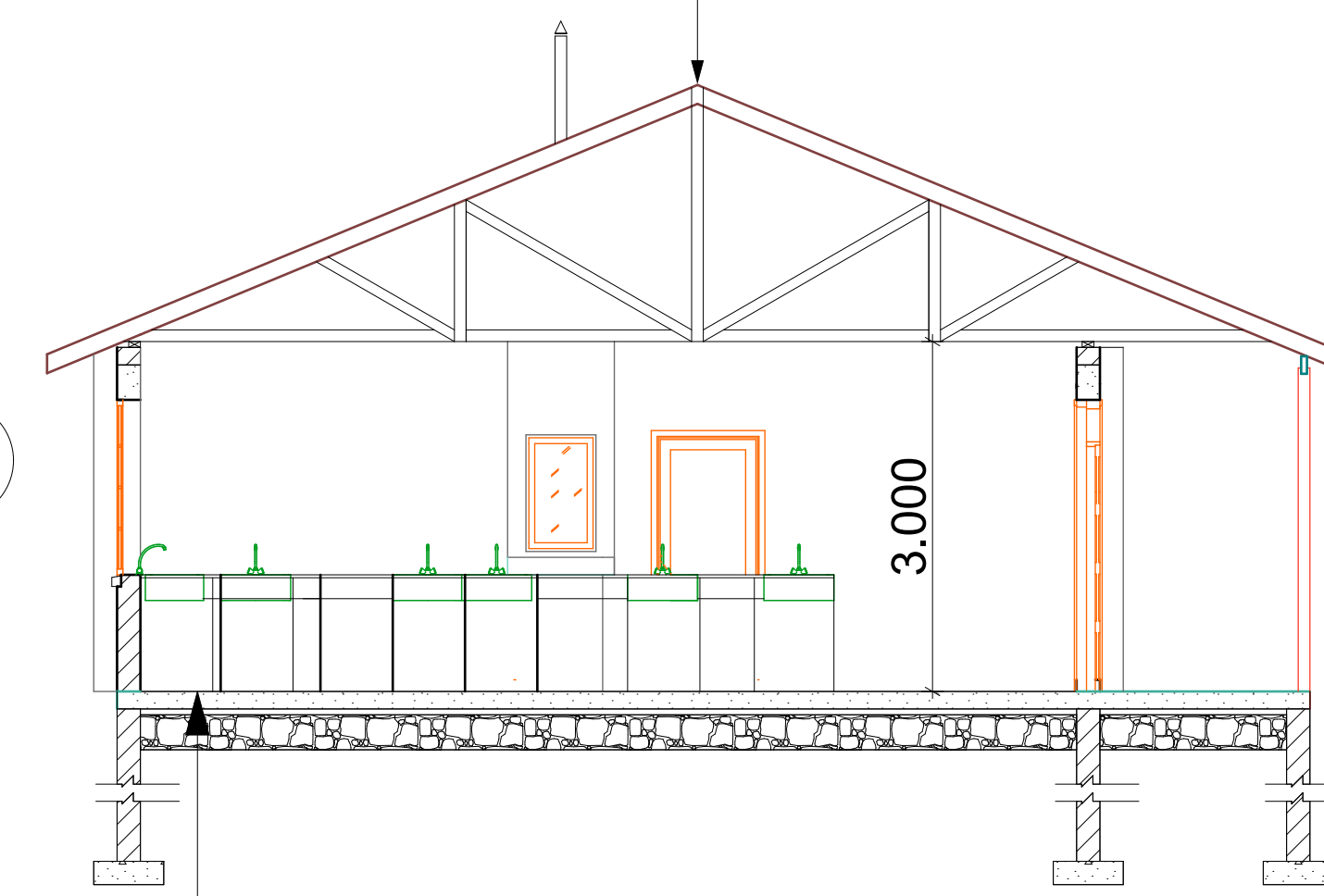
- All dimensions are in mm unless otherwise specified
  - Dimensions are to be taken as indicated in the drawing do not scale
  - Contractor check and verify all the dimensions and refer any discrepancy before commencing work
  - D.P.C under all superstructure walls
  - Depth of foundation to be determined on site
- MECHANICAL**
- All plumbing and drainage works to comply with public health specification
  - S.V.P denotes soil vent pipe and is to be provide at the head of the drainage
  - Drains passing beneath buildings and drive way should be encased in 150mm concrete surround
  - All underground foul & waste drain shall be of p.v.c, to complywith BS 5255
  - All inspection chamber covers & frame shall be cast iron to complywith BS 497 Table 2 Grade A
  - Minimum slopes in drain pipes to be 1%  
No chasing for pipes will be allowed in the slab
  - Plumbing pipes to be coordinated with electrical conduites and any conflict clarified before commencement

03

**ROOF DETAILS**

- PITCH 22.5
- I.T BOX PROFILE SHEETS
- 75x50 PURLINES
- 50x100 RAFTERS,STRUTS 7WALL PLATE
- P.V.C CEILLING LINNING
- 200x25MM FASCIA BOARD

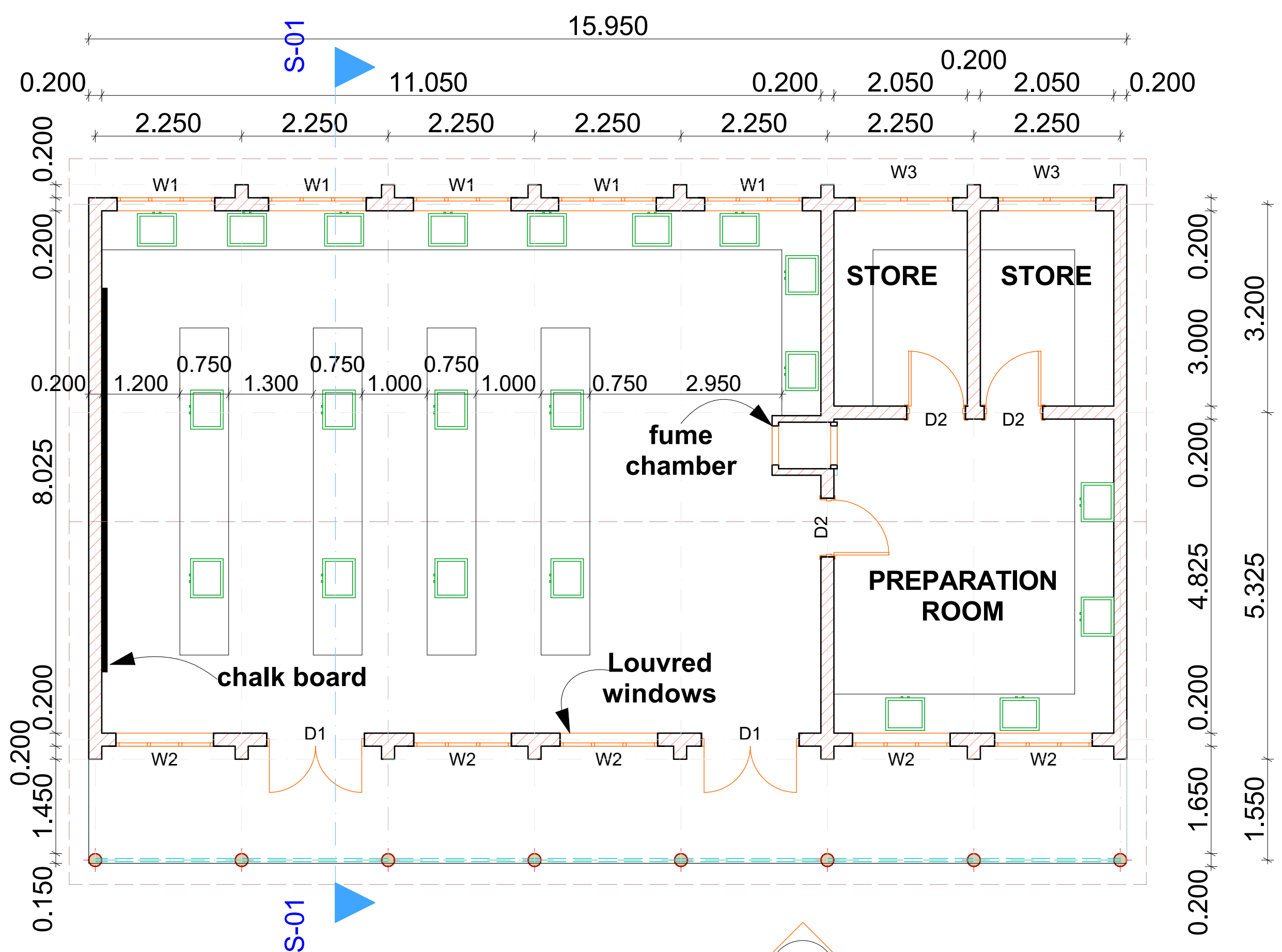
04



- 150mm slab
- D.P.M
- 50mm blinding
- 300mm hardcore
- 200mm thick foundation wall
- 200x600mm strip foundation

**SUBSTRUCTURE DETAILS SECTION S-01**

02



**GROUND FLOOR PLAN**

01

CLIENT  
**SIABAI PRIMARY SCHOOL**  
P.O. BOX 26 -40413 KEHANCHA

CLIENT SIGNATURE..... DATE.....

PROJECT  
**PROPOSED LABORATORY BLOCK**

Drawing title  
Working Drawings

Scale  
1:100 drawing no.

project job no  
PW/KURE/CDF/ML/05/24

	NAME	SIGNATURE	DATE
DRAWN BY:	ISIAH		MAY 2024
CHECKED BY:	G.I.S		

Approved by  
.....  
Arch L .Mochama Chief Architect

**DIRECTORATE OF PUBLIC WORKS**  
BUILDINGS DEPARTMENT  
FOR THE GOVERNMENT OF REPUBLIC OF KENYA