

# IMPROVING ACCESS AND QUALITY OF BASIC EDUCATION IN SOUTH SUDAN



UNICEF

MINISTRY OF GENERAL  
EDUCATION AND INSTRUCTION

## PROPOSED IMPROVED TEMPORARY LEARNING SPACE (TLS), TWO CLASSROOM'S BLOCK FOR PRIMARY SCHOOL

SITE DETAILS	
STATE	
COUNTY	
PAYAM	
BOMA	
COORDINATES	
PREPARED BY: UNICEF / MoGEI, JUBA SOUTH SUDAN	
AUGUST 2021	



**SITE PREPARATION**

- Building Site to be graded flat with 5% slope away from structure, extending a minimum of 2.5M from perimeter
- Drainage necessary away from structure, which may require substantial fill material

**CONCRETE**

- River sand may be used only after thorough washing to remove fines (silt and clay)
- All aggregate to be clean and free of organic material
- Water to be clear - use flocculent on river water or any water with suspended particles

**FOUNDATIONS COLUMN EXCAVATION**

- 400mm x 400mm x 900mm mass concrete pad foundation under each foundation steel column
- Concrete to be 1:2:4 cement:sand:aggregate, for the footing concrete
- All aggregate to be <50mm

**FOUNDATION COLUMNS FOOTINGS**

- 400mm x 400mm x 600mm, for foundation column
- Concrete to be 1:2:4 cement:sand: aggregate, for foundation column
- (4) 12mm reinforcing bars in foundation column
- 8mm links at 125mm on center per column, l
- All aggregate to be <50mm

**SLAB**

- 75mm thick reinforced concrete floor slab 1:2:4 concrete and for location without murrum use to compact normal soil and sand compacted before site to reduce the compression and expansion.
- Floor slab to be with floor screed monolithically to achieve uniform bond.
- Excavate slab area flat. Place fine grade and compact 30mm layer of sand.
- Concrete slab to be cast on 200mm compacted gravel and sand
- Control joints to be located between all rooms. Joint can be insert or saw cut, 10mm minimum depth

**WALL COLUMNS:**

- 100mm x 100mm x 3mm thick steel hollow wall section reinforced with
- Concrete to be 1:2:4 cement:sand:aggregate, for wall column Build half wall with brick walls,

**WALLS:**

- NOTE: for locations without clay burnt bricks, use of local materials like Bamboos, Timbers boards, can be used for the walls
- 400mm high from foundation use brick work to prevent flooding,
- 1800mm Bamboo walling on front and rear face of the building
- 2800mm high from the foundation and finished with iron sheets

**DOORS**

- All doors are made of Iron sheets
- ROOF Metallic
- Use corrugated 28gauge colored roof sheet 28gauge
- All 60mm x 40mm x 2mm rafters, 60mm x 40mm Tei Beam, 40mm x 40mm x 1.5mm struts and 40mm x 40mm x 2mm square steel purlins. All members to painted with three coats of anti rust paint or equivalent
- Purlins to be weld to rafter and to supporting cleat to provide adequate weld area and connection

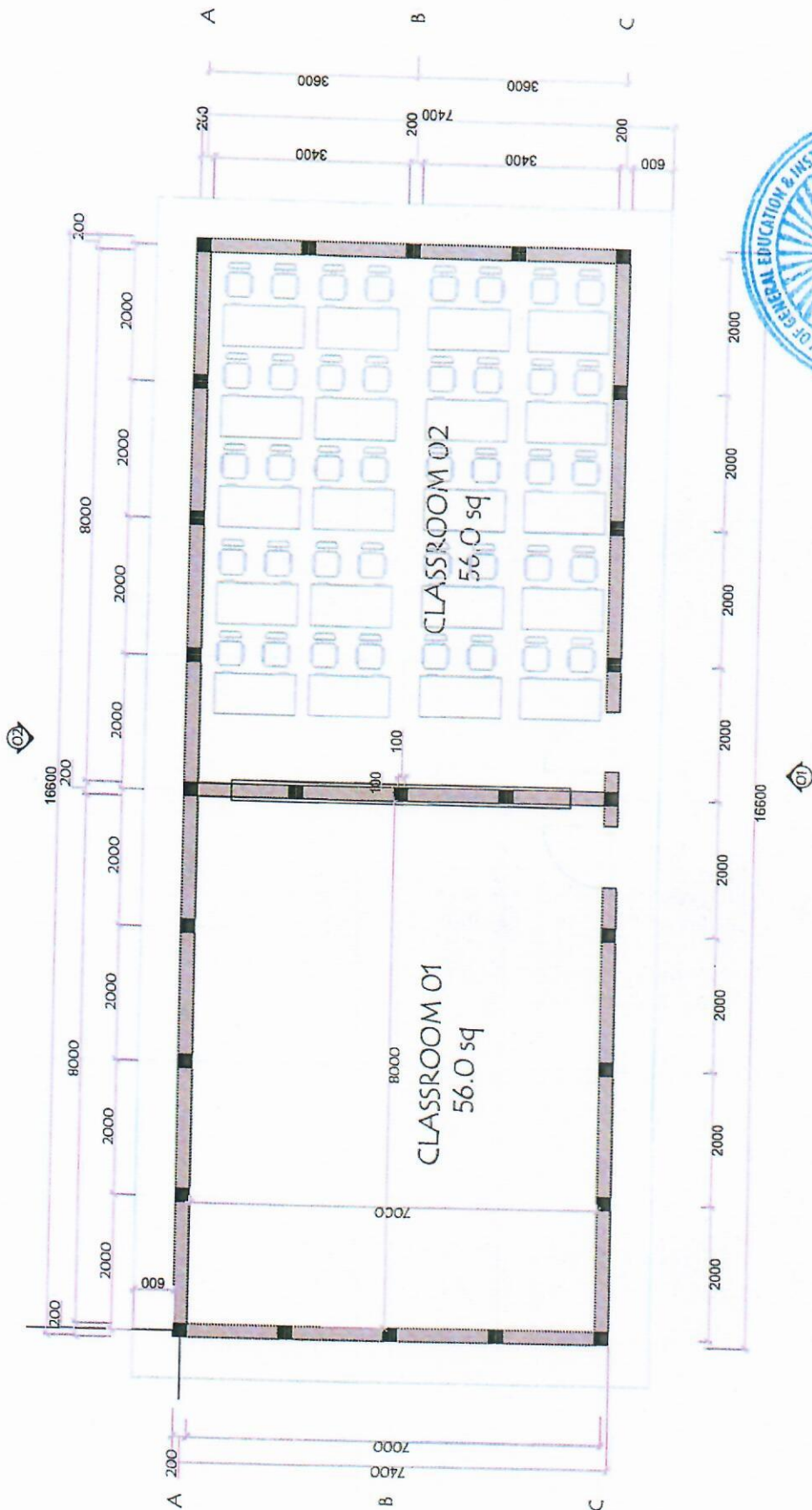
- All steel members to be free of rust and all Nodes to connected with gusset plate of minimum 6mm thickness as indicated on drawings
- Rafters structure members to all be welded with adequate weld fillet of at least 6mm
- Roof structure /tie beam to be welded to 60mm x 40mm square tube.
- All sheets to overlap 200mm

- FLOOR
- Concrete floor to be 75mm 1:2:4 cement:sand: aggregate
- Floor screed monolithically to achieve uniform bond.
- Compact murrum, or place hardcore or compact natural soil mixed with sand to attain maximum compacted base layer. All Floor style may vary according to the location.

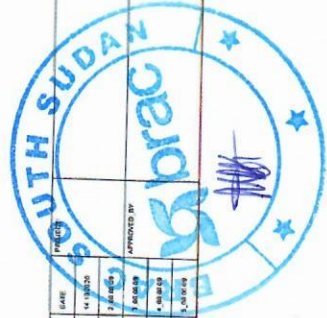
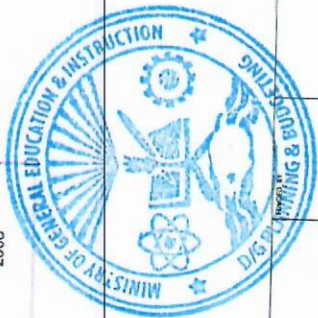
Item #	Quantity	Unit	Material	Remarks
1	1	m <sup>2</sup>	Concrete	Foundation
2	1	m <sup>2</sup>	Concrete	Column
3	1	m <sup>2</sup>	Concrete	Slab
4	1	m <sup>2</sup>	Concrete	Wall
5	1	m <sup>2</sup>	Concrete	Roof
6	1	m <sup>2</sup>	Concrete	Floor
7	1	m <sup>2</sup>	Concrete	Foundation
8	1	m <sup>2</sup>	Concrete	Column
9	1	m <sup>2</sup>	Concrete	Slab
10	1	m <sup>2</sup>	Concrete	Wall
11	1	m <sup>2</sup>	Concrete	Roof
12	1	m <sup>2</sup>	Concrete	Floor





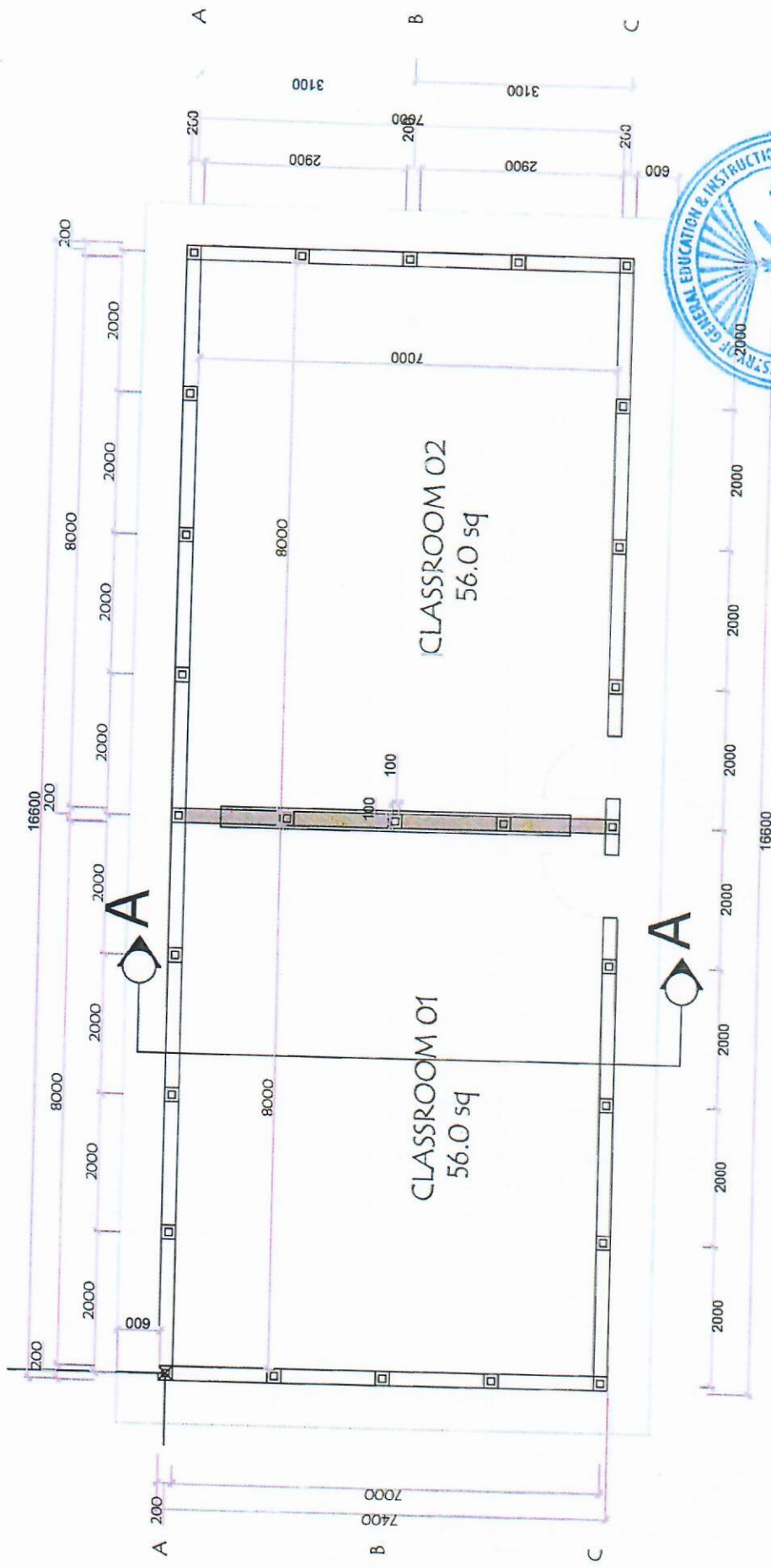
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ARCHITECTURAL FLOOR PLAN  
Scale: 1:100

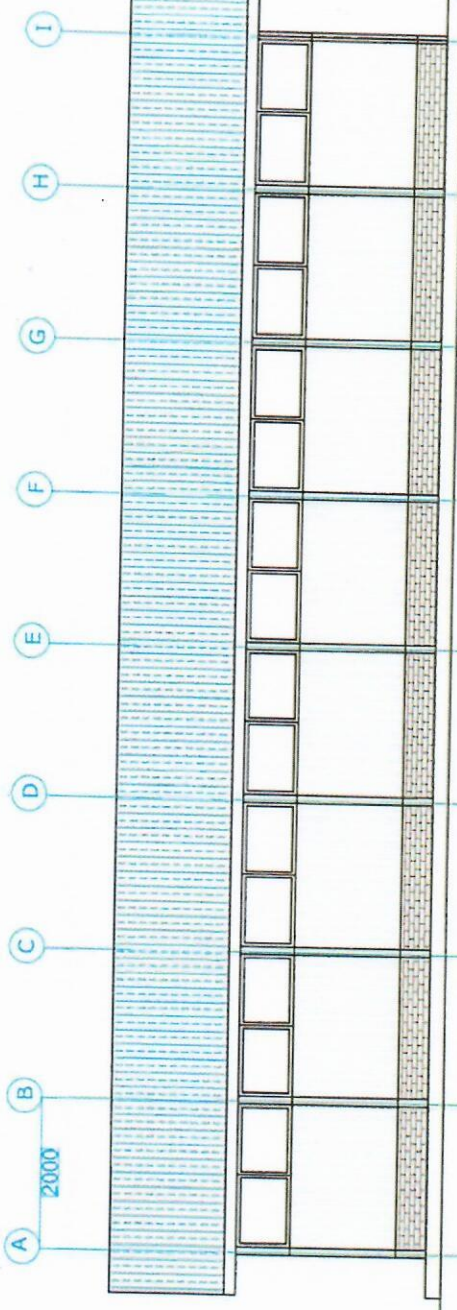


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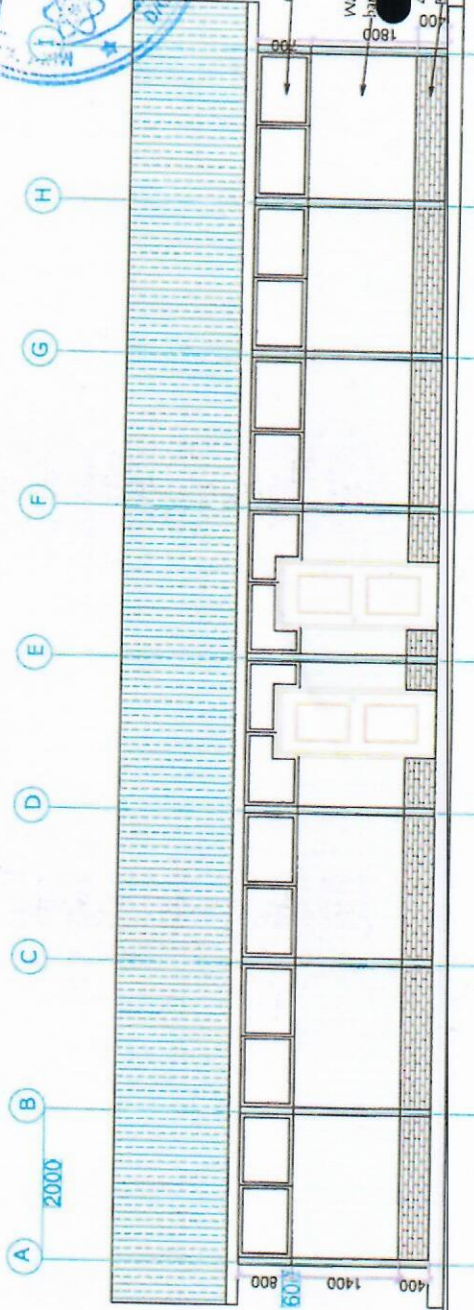


STRUCTURAL FLOOR PLAN


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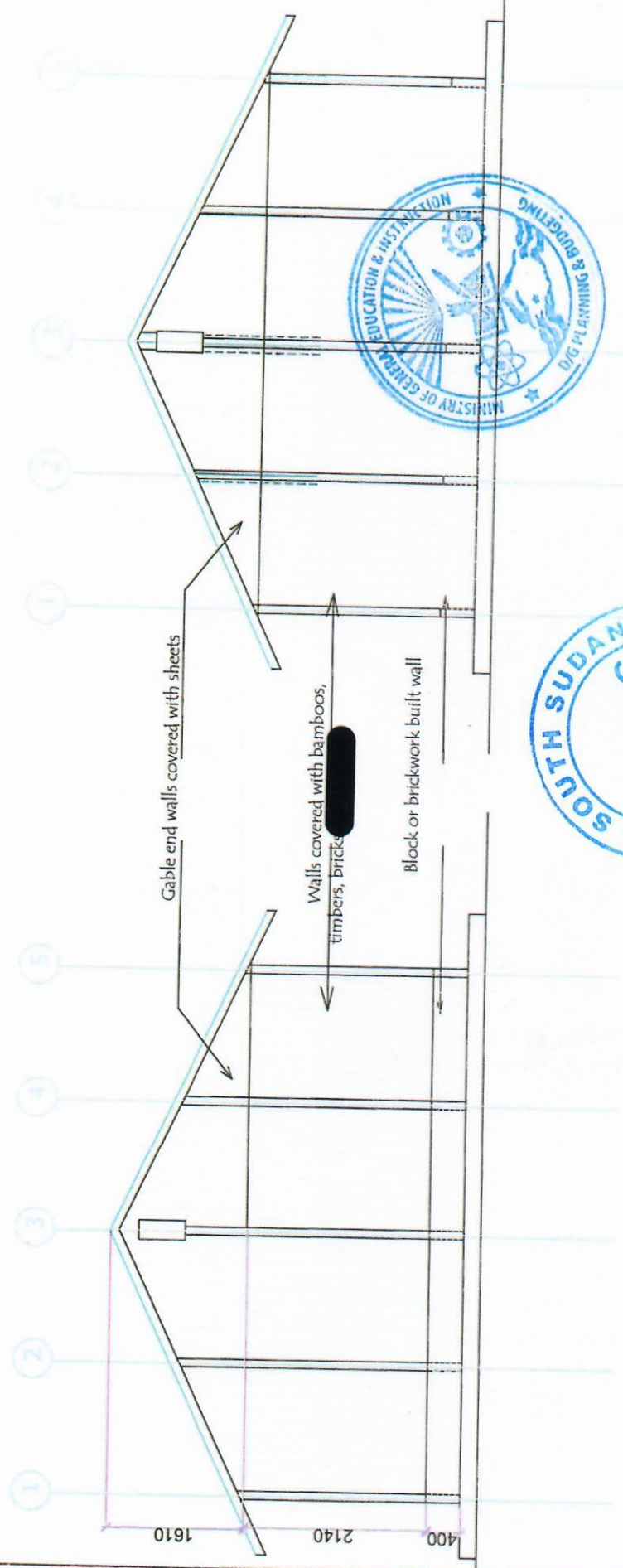


REAR ELEVATION  
Scale 1:100



FRONT ELEVATION  
Scale 1:100

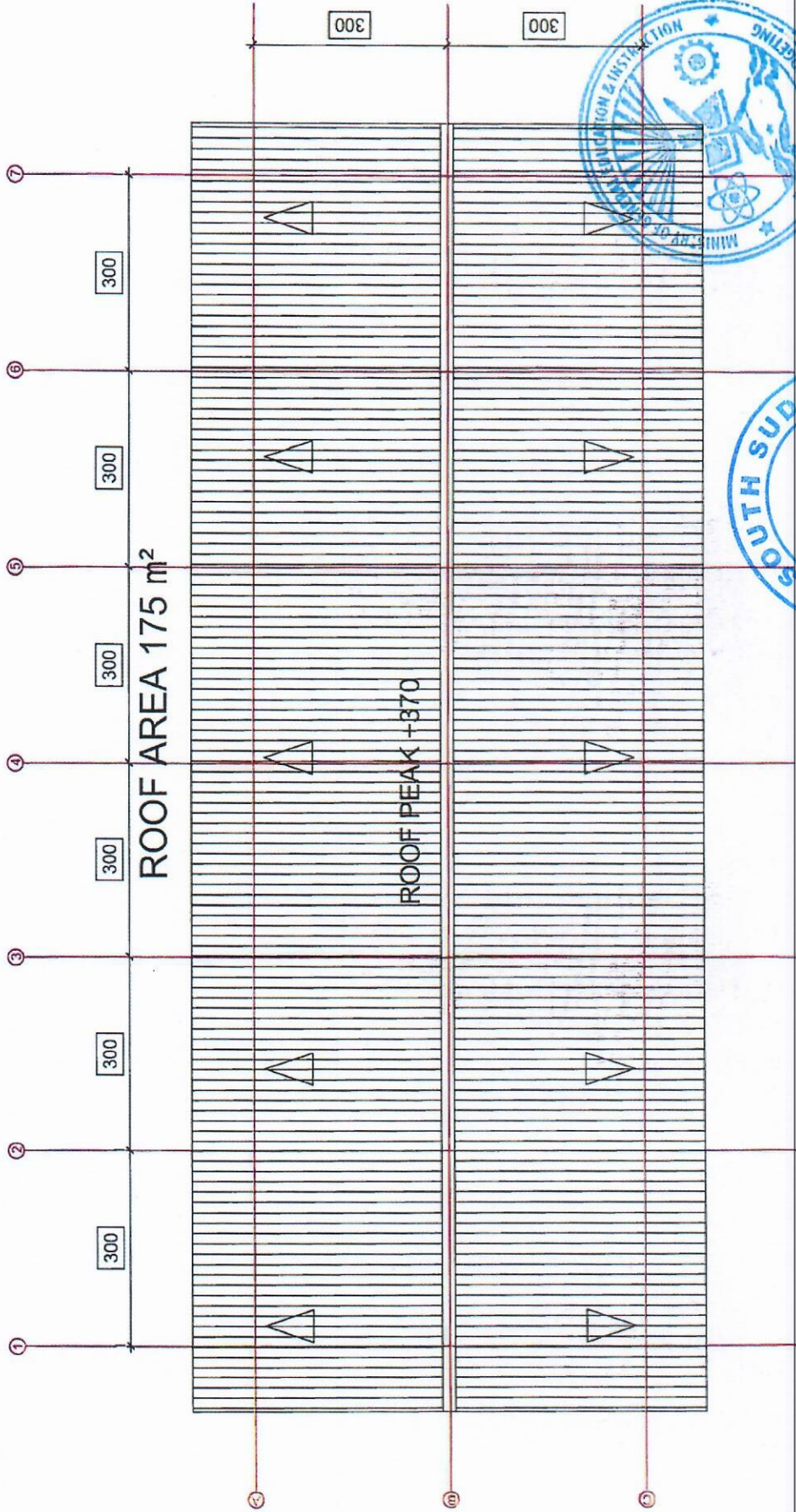
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END ELEVATION  
Scale 1:100

LEFT END ELEVATION  
Scale 1:100

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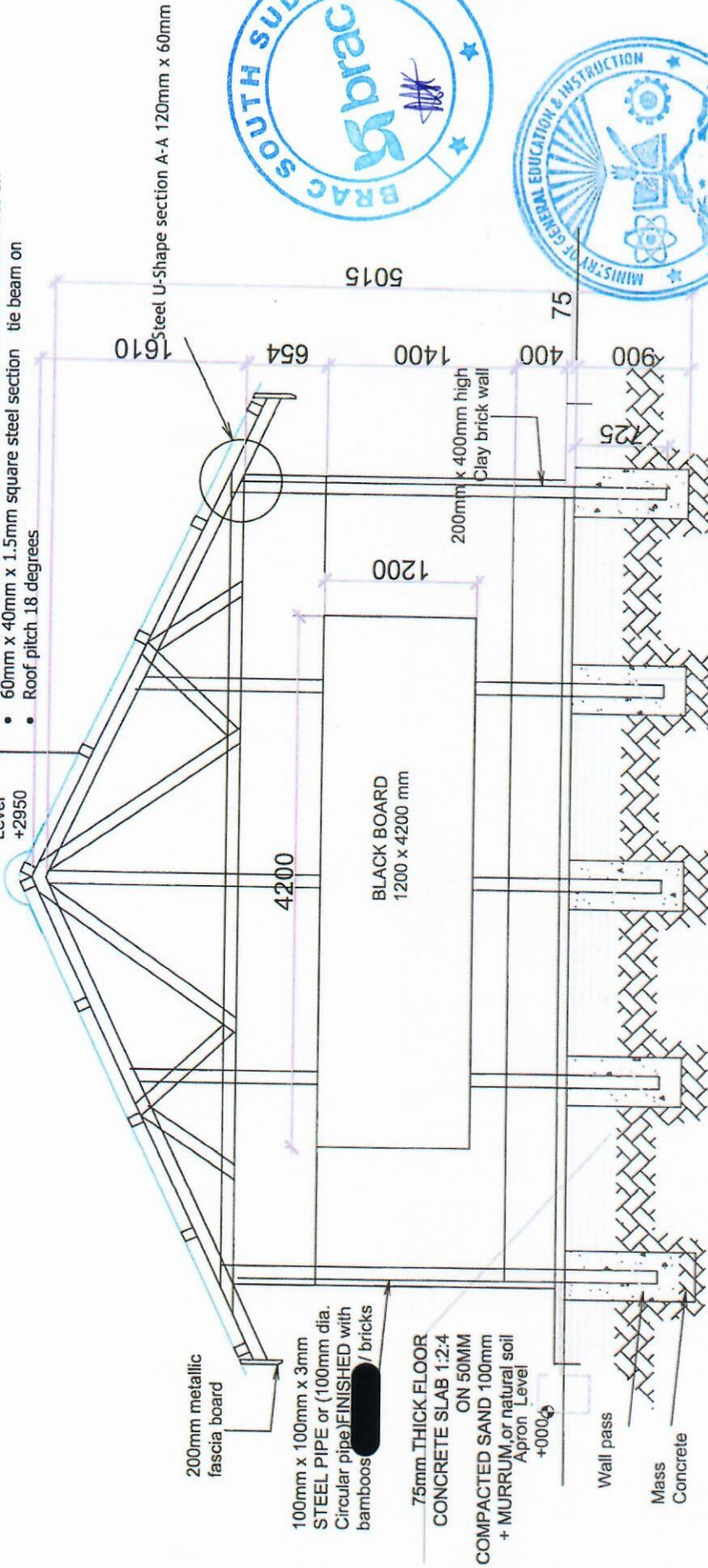
ROOF ARCH.  
SCALE 1:75

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**ROOF NOTES**

- G28 Corrugated colored roof sheets
- 40mm X 40mm X 1.5mm thick square section Steel Purlins on
- 60mm x 40mm x 1.5mm square hollow steel section Rafters on
- 40mm x 40mm x 1.5mm Square steel hollow section struts& ties on
- 60mm x 40mm x 1.5mm square steel section tie beam on
- Roof pitch 18 degrees

Top Rafter Level +2950



200mm metallic fascia board

100mm x 100mm x 3mm STEEL PIPE or (100mm dia. Circular pipe) FINISHED with bamboos / bricks

75mm THICK FLOOR CONCRETE SLAB 1:2:4 ON 50MM

COMPACTED SAND 100mm + MURRUM, or natural soil Apron Level +0000

Wall pass

Mass Concrete

1200

4200

5015

1610

654

1400

200mm x 400mm high Clay brick wall

400

900

400

**FOUNDATION NOTES**

- Floor screed finishing
- 20mm thick cement mortar screed 1:3
- 75mm thick RC C25 reinforced with BRC 8mm dia
- 50mm thick sand on,
- 200mm Well compacted wet murrum on,
- Well compacted natural soil

**SECTION A-A scale 1:100**

NOTE: IN LOCATION WITHOUT MURRAM LET'S USE THE NATURAL SOIL MIXED WITH SAND AND COMPACT TO REDUCE SHRINKAGE AND EXPANSION



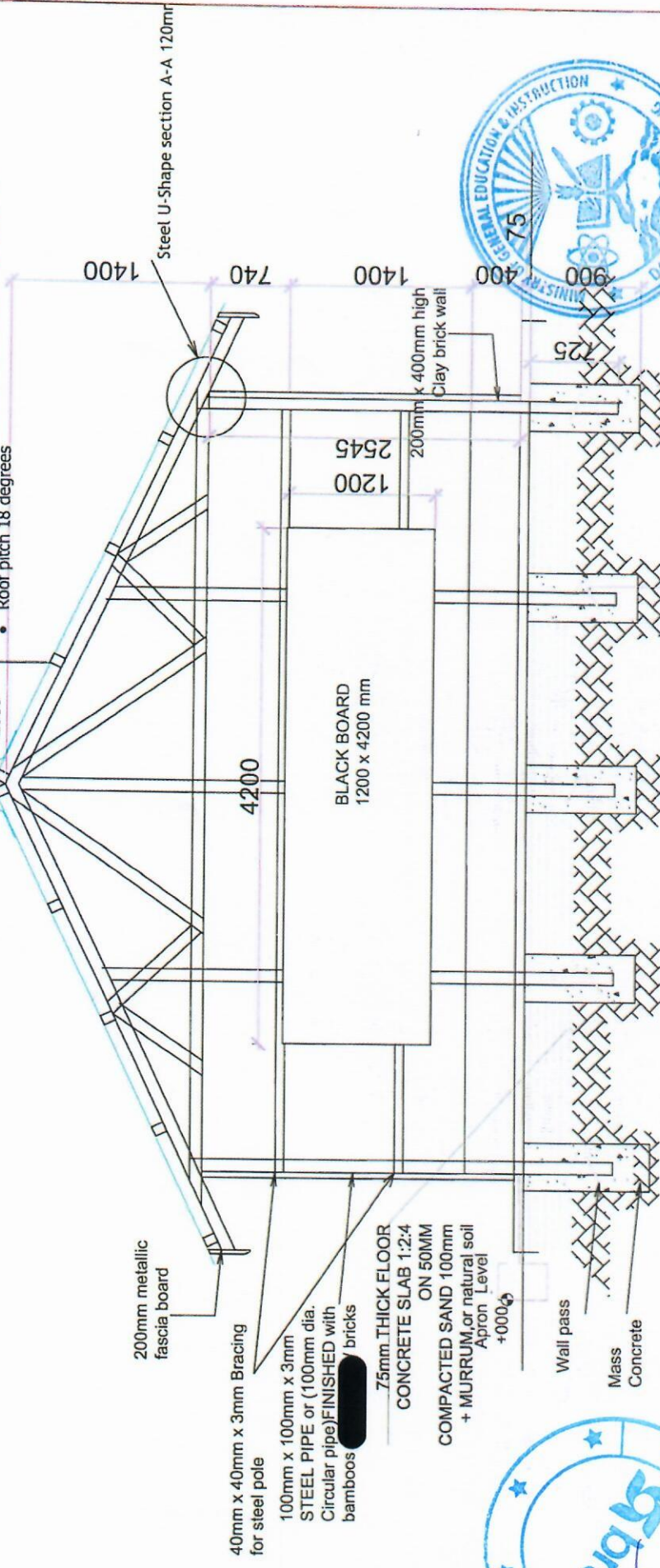
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**ROOF NOTES**

- G28 Corrugated colored roof sheets
- 40mm x 40mm x 2mm thick square section Steel Purlins on
- 60mm x 40mm x 2mm square hollow steel section Rafters on
- 40mm x 40mm x 2mm Square steel hollow section struts& ties on
- 60mm x 40mm x 2mm square steel section tie beam on
- Roof pitch 18 degrees

Top Rafter Level +2950



200mm metallic fascia board

40mm x 40mm x 3mm Bracing for steel pole

100mm x 100mm x 3mm STEEL PIPE or (100mm dia. Circular pipe) FINISHED with bamboos or bricks

75mm THICK FLOOR CONCRETE SLAB 1:2:4 ON 50MM COMPACTED SAND 100mm + MURRUM or natural soil Apron Level +0000

Wall pass  
Mass Concrete

4200

BLACK BOARD 1200 x 4200 mm

1200  
2545

200mm x 400mm high Clay brick wall



**FOUNDATION NOTES**

- Floor screed finishing
- 20mm thick cement mortar screed 1:3
- 75mm thick RC C25 reinforced with BRC 8mm dia
- 50mm thick sand on,
- 200mm Well compacted wet murrum on,
- Well compacted natural soil

**SECTION A-A** scale 1:100

NOTE: IN LOCATION WITHOUT MURRAM LET'S USE THE NATURAL SOIL MIXED WITH SAND AND COMPACT TO REDUCE SHRINKAGE AND EXPANSION



	TITLE: <b>PROPOSED_TLS</b> DESIGN: UNICEF_SOUTH_SUDAN		No. 01	INDEX: A500	REVISION: 1. REVISION, 2. REVISION, 3. REVISION, 4. REVISION, 5. REVISION	DATE: 14/11/2020, 23/09/2019, 10/09/2019, 04/08/2019, 11/08/2019	DRAWN BY: [Signature]	CHECKED BY: [Signature]	APPROVED BY: [Signature]	DATE: [ ]
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