

# CONDITION ASSESSMENT REPORT

**HEALTH CENTER OF OTACH (NY06)**

**NYALA LOCALITY**

**STATE OF SOUTH DARFUR**

**Ref: < CIG: Z9C3218E45>**



## **Prepared by**

**DOUBLE Q.T.C ENGINEERING.**

Building (28), Block (9), Mohamed Najeeb Street, Al-Emarat,  
Khartoum, SUDAN



## **Prepared for**

**AICS - ITALIAN AGENCY FOR DEVELOPMENT COOPERATION (AICS)**

Khartoum Office - St. no 33 Amarat, House no 25 Block 12 K-east  
Khartoum, SUDAN



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## **1. Introduction:**

The health center of OTASH State of South Darfur (Northern Nyala) contains of scattered one-story buildings.

As a part of the Client's Project, Technical condition assessment is required for the Health Center to determine all basic information requested for a new design and rehabilitation works.

Site visit was conducted and visual inspection is performed to describe the present condition and to collect the basic information and necessary data for a new rehabilitation and design, this report is prepared in compliant with the signed contract and terms of reference.

### **1.1. Purpose**

The purpose of this report is summarized as per the following points:

- To assess the general condition of the Health Center Buildings in Nyala locality, South Darfur state including (dimensions, functional info, structural status, civil works and finishing status, plumbing and electrical plants and devices status, latrines, etc.).
- A Photographic report with description of Health Centre spaces and functions, internal and external, including wall fence or any kind of boundary.
- Technical Report that describes the foundations, doors and windows type, finishing details (ceramic tiles, etc.) and highlights all critical aspects related to the rehabilitation works to be designed and performed.

### **1.2. The Assessment Methodology**

In this report, the condition assessment is based on the visual inspection performed for all components of the Health Center.

To achieve the purposes of this report, the construction components are categorized as the following;

- Structural, includes all of the following (Foundations, Walls, and Roof)
- Finishes, includes all of the following (False ceiling, Veranda, Doors, Windows, Grill, Ground Tiles, Plaster, and Paint)
- Water Supply and Drainage System includes, all of the following (Water Supply, Plumbing Net, Plumbing Fixtures)
- Electrical, includes all of the following (Electrical Net, Fixtures)

## **2. General Site Description:**

The Site is located in Nyala (Northern Nyala) / State of South Darfur (12° 6'21.92"N, 24°54'40.34"E) as shown in the fig. (1) the general location on Google Map.

The Health Center is containing of scattered one-story buildings with load bearing wall as structural system.

## 2.1. Area and Boundaries

Total Land Area: 927 m<sup>2</sup>.

Total Built Area: 205.50 m<sup>2</sup>.

North Boundary: Neighbor

South Boundary: Local Market

East Boundary: Open Yard

West Boundary: Mosque

## 2.2. Site Layout

Fig. (2) shows the general site layout which consists of the following:

- Fence with One Gate.
- BLOCK (A)- Female Ward & Pharmacy Building.
- BLOCK (B)- Medical and Statistic section Building.
- BLOCK (C)- Laboratory and Male's Ward Building.
- Tow Latrine.
- Above-Ground Water Tank.
- Generator Room.
- Medical Waste Disposal.



**Fig. (1): General Site Location**



Fig. (2): General Site Layout



Fig. (2.1): General Site Layout

### 3. Condition Assessment

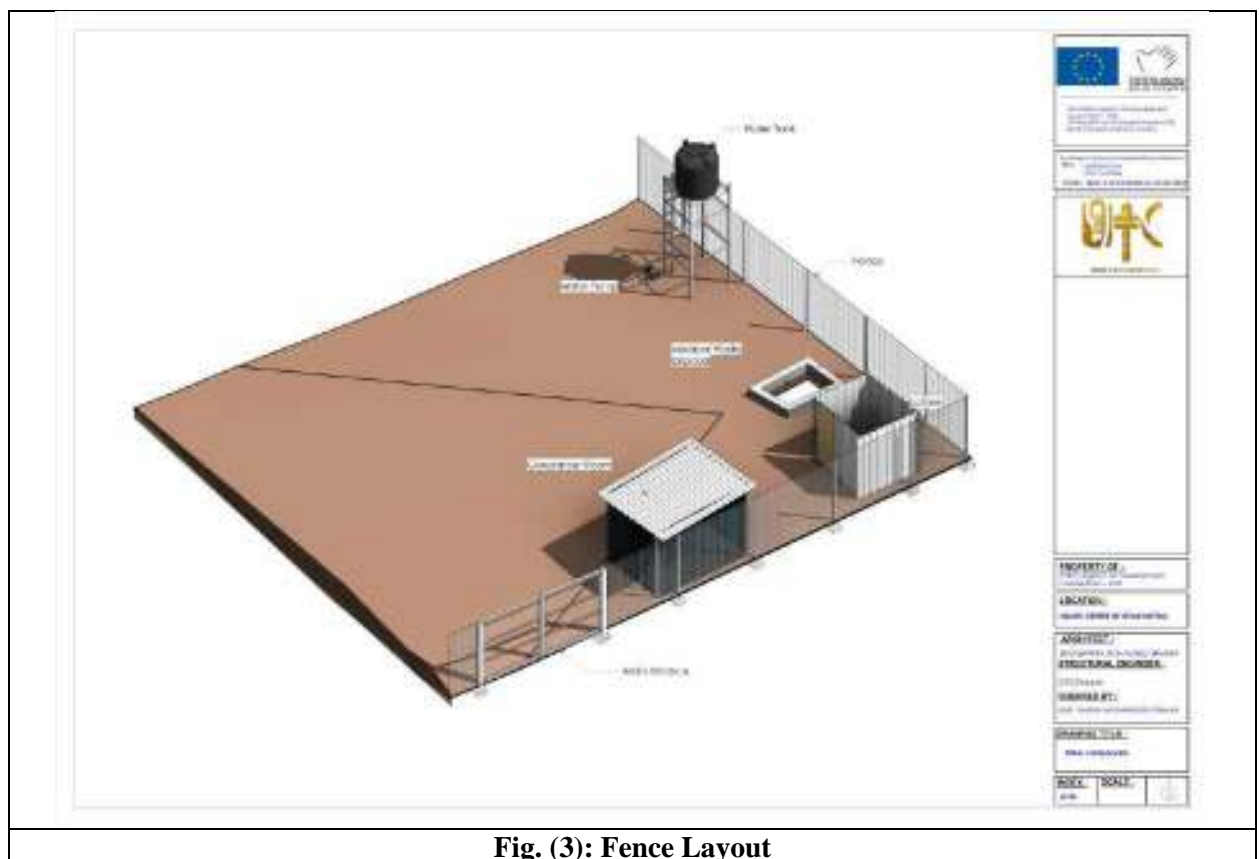
#### 3.1. Fence

- **Description:**

Fig. (3) shows general fence wall layout which consists of:

- metal grid fence with variable height level (average 2m) and Stiffeners by hollow round steel (3inch) each 3m run length, Painted. Total Length of the Fence =121.70m.
- One Steel Gates: (4m width\*2m height).

- **Recommendations:** Maintenance of fence is recommended with Gates Doors. (Barbed wires are proposed)







**Fig. (4): Fence Views**

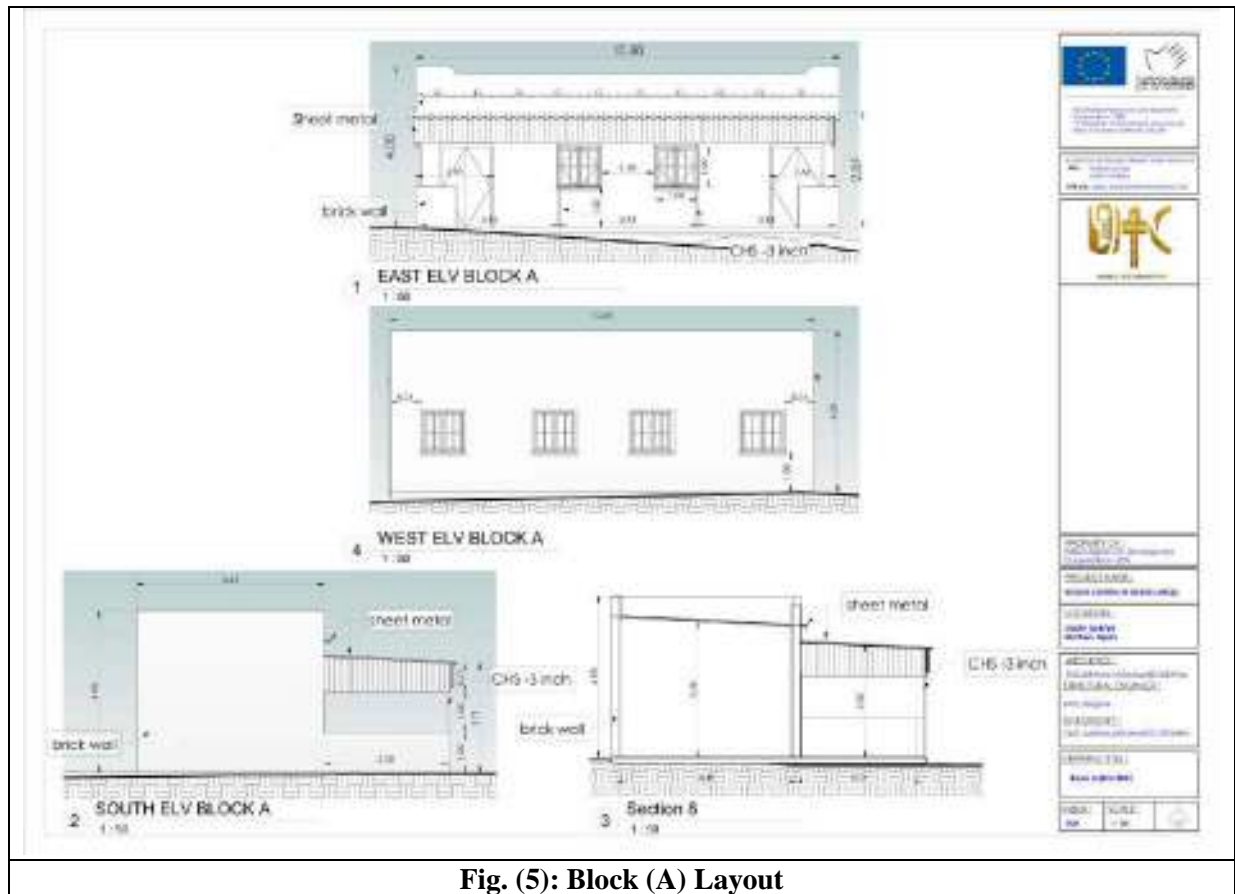
### 3.2. Block (A)- Female Ward & Pharmacy Building

- **Description:**

- One-story load bearing building.
- Built Area= 42m<sup>2</sup> and Veranda area =29m<sup>2</sup>.
- The building is utilized.
- As shown in the fig. (5) The building contains of two rooms as the following;
  1. Women Ward
  2. Pharmacy.
  3. Veranda

Discipline	Component	BLOCK A	
		Building Condition	Recommendation
Structural	Foundation	The foundations are made of cement bricks, with a thickness of two bricks, and no cracks or Settlement are noticed. Safe Condition	Maintenance is not necessary
	Wall	The walls are made of cement bricks, with a thickness of one brick, and no cracks or Settlement are noticed. Safe Condition	Maintenance is not necessary
	Roof	The roof is constructed of metal sheets of zinc grade 0.33mm. Safe Condition	Maintenance is not necessary
Finishes	False ceiling	Not Exist	False ceiling is recommended
	Veranda	The roof is constructed of metal sheets and the frame constructed by hollow rectangular section (3X6 - 4X8) and (Circular Hollow Section 3 inch) for columns. Good condition	Maintenance is not necessary
	Doors	The doors are made of metal and in Limited condition	Maintenance and fixing accessories are recommended
	Windows	The windows are made of metal and in Limited condition also, it is noticed that there are no windows in the north and south sides	Maintenance is recommended windows on the western side with rain shelter, also new windows are recommended in the north and south sides
	Grill	Good condition	Maintenance is not required
	Floor Tiles	Not exist	Floor tiles are recommended
	Plaster	Good condition	Maintenance is not necessary
	Paint	Limited condition	Internal and external Paint is recommended
Plumbing System	Water Supply	Not Exist	Water supply system is necessary (Water supply system by PPR Pipes is proposed to cover all the center's components)
	Waste Water System	Not Exist	Sewage network is necessary (Waste Water System including to PVC Pipes, Manholes and traditional Waste Well is proposed)
	Plumbing Fixtures	Not Exist	Plumbing Fixtures are recommended
Electrical	Electrical Net	The electrical network is in Limited condition.	Maintenance is recommended. The electricity network between the components of the health center is recommended to be reconnected underground instead of the upper connection
	Fixtures	The socket, gang switch, ceiling fan, fan regulator and wall mounted lamp (Limited condition). Distribution board is not exist.	Maintenance or replacement is recommended, also distribution board is necessary to be fixed.





**Fig. (5): Block (A) Layout**





**Fig. (6): Block (A) External Views**



**Fig. (7): Block (A) Internal Views**

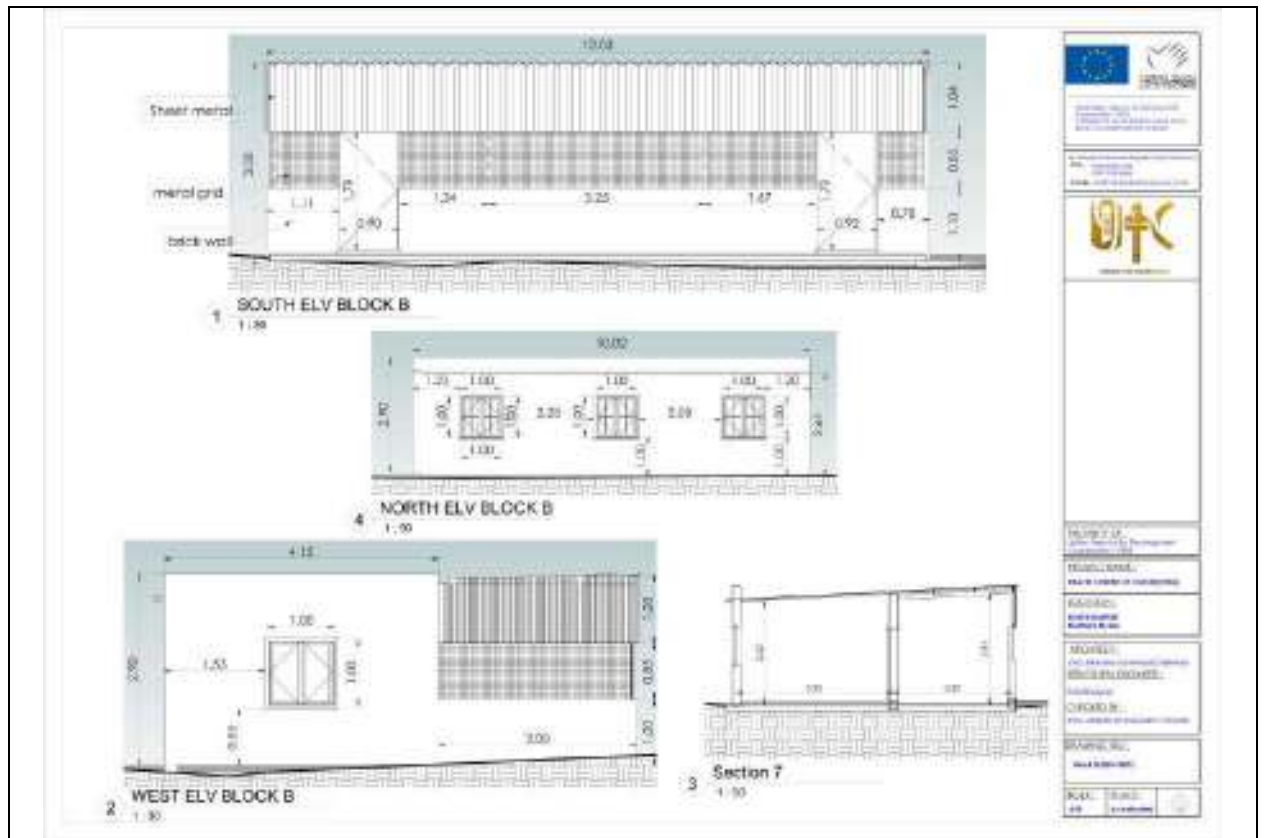
### 3.3. Block (B) - Medical and Statistic section Building

- **Description:**

- One-story load bearing building.
- Built Area= 34m<sup>2</sup> and Veranda area =27m<sup>2</sup>.
- The building is utilized.
- As shown in the fig. (8) The building contains of three rooms as the following;
  1. Doctor room.
  2. Medical assistance room.
  3. Statistic room
  4. Veranda

Discipline	Component	BLOCK B	
		Building Condition	Recommendation
Structural	Foundation	The foundations are made of cement bricks, with a thickness of two bricks, no cracks or Settlement are noticed. Safe condition	Maintenance is not necessary
	Wall	The walls are made of cement bricks, with a thickness of one brick no cracks or Settlement are noticed. Safe condition	Maintenance is not necessary
	Roof	The roof is constructed of metal sheets of zinc grade 0.33mm, Safe Condition	Maintenance is not necessary
Finishes	False ceiling	Not Exist	False ceiling is recommended
	Veranda	The roof is constructed of metal sheets and the frame constructed by hollow rectangular section (3X6 - 4X8) and metal grid, (Circular Hollow Section 3 inch) for columns. Good condition	Maintenance is not necessary
	Doors	The doors are made of metal and in Limited condition	Maintenance and fixing accessories are recommended
	Windows	The windows are made of metal and in Limited condition	Maintenance is recommended windows on the North side with rain shelter
	Grill	Good condition	Maintenance is not necessary
	Floor Tiles	Only the doctor's room. (Limited Condition)	Floor Tiles are recommended except for the doctor's room. Wall tiles is necessary for wash basins in medical assistant room.
	Plaster	Good condition	Maintenance is not necessary
	Paint	Limited condition	Maintenance is recommended
Plumbing System	Water Supply	Water network pipes feeding the medical assistant room, PVC pipe (0.5 inch), Poor Condition	A new water supply system is necessary (Water supply system by PPR Pipes is proposed to cover all the center's components)
	Waste Water System	The wash basin outlet is not connected to waste water system and it is just dropped out by 2inch PVC pipe. (Poor Condition)	A sewage network is necessary (Waste Water System including to PVC Pipes, Manholes and traditional Waste Well is proposed)
	Plumbing Fixtures	Wash basins in good condition	Maintenance is not necessary
Electrical	Electrical Net	The electrical network is in Limited condition.	Maintenance is recommended. The electricity network between the components of the health center is recommended to be reconnected underground instead of the upper connection
	Fixtures	The socket, gang switch, ceiling fan, fan regulator and wall mounted lamp (Limited condition). Distribution board is not existing.	Maintenance or replacement is recommended, also distribution board is necessary to be fixed.





**Fig. (8): Block (B) Layout**



**Fig. (9): Block (B) External Views**



Fig. (10): Block (B) Internal Views

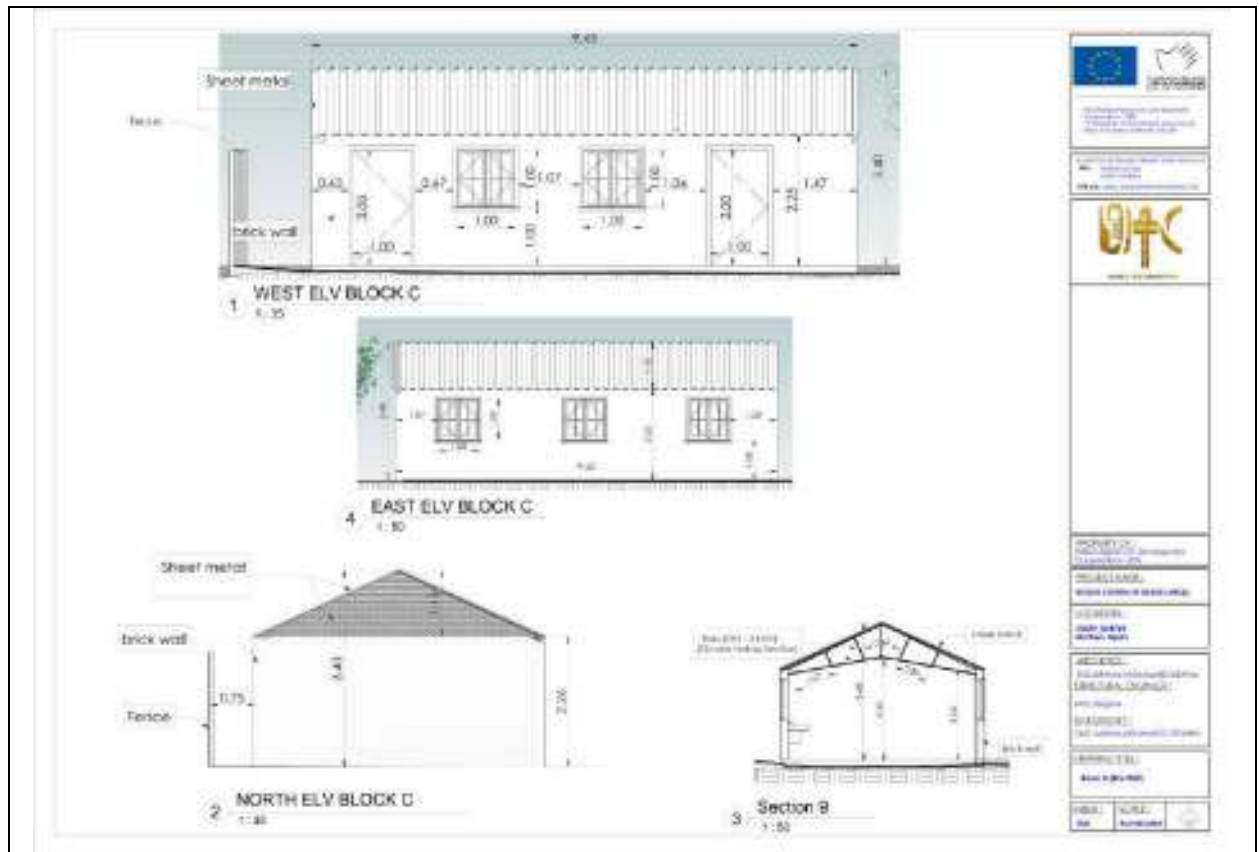
### 3.4. Block (C) – Laboratory and Male’s Ward Building

- **Description:**

- One-story load bearing building.
- Built Area= 41m<sup>2</sup> No veranda.
- The building is utilized.
- As shown in the fig.(11) the building contains of two rooms as the following;
  1. Laboratory.
  2. Male’s Ward.

Discipline	Component	BLOCK C	
		Building Condition	Recommendation
Structural	Foundation	The foundations are made of cement bricks, with a thickness of two bricks. No cracks or Settlement are noticed. Safe condition	Maintenance is not necessary
	Wall	The walls are made of cement bricks, with a thickness of one brick. No cracks or Settlement are noticed. Safe condition	Maintenance is not necessary
	Roof	The roof is constructed of metal sheets of zinc grade 0.33mm, and they are in Limited condition, But the roof height is low	The height is recommended to be raised by not less than one meter.
Finishes	False Ceiling	Not Exist	False ceiling is recommended
	Veranda	Not Exist	Veranda is recommended
	Doors	The doors are made of metal and in Limited condition	Maintenance and fixing accessories are recommended
	Windows	The windows are made of metal and in Limited condition also, it is noticed that there are no windows in the north and south sides	Maintenance is recommended windows on the eastern side with rain shelter. New windows are recommended in the north and south sides
	Grill	Good condition	Maintenance is not necessary
	Floor Tiles	Only the Laboratory room. (Limited Condition)	Floor Tiles are recommended except for the Laboratory room. Wall tiles are necessary for wash basins in the laboratory room.
	Plaster	Good condition	Maintenance is not necessary
	Paint	Limited condition	Internal and external Paints are recommended
Plumbing System	Water Supply	Water network pipes feeding the Laboratory room, PVC pipe (0.5 inch), and in a Poor condition	A new water supply system is necessary (Water supply system by PPR Pipes is proposed to cover all the center’s components)
	Waste Water System	The wash basin outlet is not connected to waste water system and it is just dropped out by 2inch PVC pipe. (Poor Condition).	A sewage network is necessary (Waste Water System including to PVC Pipes, Manholes and traditional Waste Well is proposed)
	Plumbing Fixtures	Wash basins are in Poor condition	Replacement of the wash basins is necessary
Electrical	Electrical Net	The electrical network is in Limited condition.	Maintenance is recommended. The electricity network between the components of the health center is recommended to be reconnected underground instead of the upper connection
	Fixtures	the socket, gang switch, ceiling fan, fan regulator, wall mounted lamp and distribution board are in Limited condition.	Maintenance or replacement is recommended.





**Fig. (11): Block (C) Layout**



**Fig. (12): Block (C) External Views**



**Fig. (13): Block (C) Internal Views**

### 3.5. Other Components

**Latrine:**

- Wall is steel corrugated sheet (Zink)
- Poor Condition


**Recommendation:**


- Maintenance or replacement is necessary.





**Fig. (14): Latrine**



	<p><b>Above-ground Water Tank:</b></p> <ul style="list-style-type: none"><li>- Plastic Tank with capacity 500 liter</li><li>- Good Condition</li><li>- Hight = 3m.</li></ul> <p>Recommendation:</p> <ul style="list-style-type: none"><li>- New Water Tank (capacity 2000 liter) is recommended to be provided with steel support structure to carry it.</li></ul>
<p><b>Fig. (15): Above-Ground Water Tank</b></p>	

	<p><b>Water Pump:</b></p> <ul style="list-style-type: none"><li>- Limit Condition</li><li>- 0.50PH</li></ul> <p>Recommendation:</p> <ul style="list-style-type: none"><li>- New water pump with 1.00 power horse (PH) is recommended.</li></ul>
<p><b>Fig. (16): Water Pump</b></p>	

	<p><b>Electrical Power Generators:</b></p> <ul style="list-style-type: none"><li>- One Generators.</li><li>- Limited Condition.</li><li>- Available in Building (A, B &amp; C).</li></ul> <p>Recommendation</p> <ul style="list-style-type: none"><li>- New standby generator or Solar Panel Energy is recommended for the health center</li></ul>
<p><b>Fig. (17): Electrical Power Generation</b></p>	

	<p><b>Medical Waste Disposal:</b></p> <ul style="list-style-type: none"><li>- Poor Condition</li></ul> <p>Recommendation</p> <ul style="list-style-type: none"><li>- New Medical Waste Disposal is necessary</li></ul>
<p><b>Fig. (18): Medical Waste Disposal</b></p>	

### 3.6. Condition Assessment Summary

Condition assessment of all main buildings is summarized in the table (1).

**Table (1): Condition Assessment Summary**

Discipline	Component	Block			Fence
		A	B	C	
Structural	Foundation	Safe	Safe	Unsafe	Limited
	Walls	Safe	Safe	Unsafe	
	Roof	Safe	Safe	Limited use	
Architecture	False Ceiling	Not Exist	Not Exist	Not Exist	Limited
	Veranda	Good	Good	Not Exist	
	Doors	Limited	Limited	Limited	
	Windows	Limited	Limited	Limited	
	Grills	Good	Good	Good	
	Ground Tiles	Not Exist	Limited	Limited	
	Wall Tiles	Not Exist	Not Exist	Not Exist	
	Plaster (Internal)	Good	Good	Good	
	Plaster (External)	Good	Good	Good	
	Paint (Int.& Ext.)	Limited	Limited	Limited	
Plumbing	Water Supply	Not Exist	Poor	Poor	Not Applicable
	Waste Water	Not Exist	Poor	Poor	
	Plumbing Fixtures	Not Exist	Good	Poor	
Electrical	Electrical Net	Limited	Limited	Limited	
	Fixtures	Limited	Limited	Limited	
Generator		Limited Condition			
Notes:					
	Structural	Safe	Restoration (repair or strengthening) is unnecessary		
		Limited Use	Restoration (repair or strengthening) is necessary.		
		Unsafe	Restoration is impossible		
	Other	Good	Maintenance or replacement is not recommended		
		Fair	Maintenance is recommended.		
		Poor	Maintenance or replacement is necessary		



#### **4. Recommendations**

As per the visual inspection following by condition assessment presented in this report, the following points are highly recommended in addition to the above-mentioned recommendations:

- The water source is far from the health center. A new water well is recommended to cover the needs of the health center.
- Latrine is highly recommended to be maintained or replaced.
- New standby generator or solar energy is necessary for the health center with main distribution board.
- Barbed wire can be fixed on fence walls for the security.
- All Buildings Roofs shall be protected against rains by proper water insulation material.
- Site Landscape is recommended to be improved.