

## Annex 3

BOQ For UNFPA building For Security Work and Maintenance Work			
Item	Description	unit	Qty.
<b>A Security Works</b>			
<b>I Site plan</b>			
<b>1 Perimeter Protection</b>			
1-1	<p><b>Removable work :</b> Dismantling the existing Caravans in the back streeel forward in order to install T-walls. Item includes lifting the Caravan and install it in the new location, demolishing the existing block and tiles, building solid block around the Caravan with at least 40 cm, paltering with at least 20 mm thickness using sulphates resisting cement , install staircase for the caravans, all electrical work, re-install the cables that feeding the caravan all the necessary work to finish this item and make the caravan functional, the supplier has to visit the site, no claims will be accepted due to lack of knowledge of the site, according to the drawing and the instruction of the supervisor engineer.</p>	NO	2
1-2	<b>Masonry wall</b>		
1-2-1	<p><b>Earthwork excavation:</b> Earthwork excavation for wall foundations in any kind of soil to the dimensions and levels shown in drawings. Item include scrapping off sidewalk, curb stone, cut concrete layer. Price to include backfilling with excavated soil if suitable or substituting same with selected approved imported soil, and removal of extra and unsuitable soil. Back filling shall be on layers of 200 mm thick with watering and compacting to (95%) of MDD. The item includes Disposing surplus excavated soils outside the site.</p>	m <sup>3</sup>	52
1-2-2	<p><b>Plain concrete using sulphates resisting cement:</b> Supply and Cast ready mix Concrete for the plain concrete foundation with size 50 cm width * 20 cm depth with a minimum cement content of 300 Kg per cubic meter. Price include rebar 5Ø10 /m in both directions. Item include flexible expansion joint each 6 m, all form works, removal of forms, insulation the foundation with polyethylene , cleaning of all exposed tie wires and rods, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer</p>	m3	10.4
1-2-3	<p><b>Base Stone Works :</b> Supply and Build base black "BASILTE" stone above plain concrete foundation up to design level using sulphates resisting cement 1:3in first class with 40 cm thickness. each layer of the stone is 15 cm thickness, the middle filling shall be 60% concrete and 40% stone. Stone material, size, and texturing shall be in accordance with Engineer's instructions and approval. including flexible expansion joint each 6 m, Cutting, shaping and building of stone shall be in straight angles, no twisting, distortion or uneven sizes shall be allowed. The price included any work to finish work as per specifications and workmanship recommendations.</p>	m <sup>2</sup>	51.8
1-2-4	<p><b>Base Stone Works as cladding :</b> Supply and Build base black "BASILTE" stone to cover the ground beam with at least 10 cm thickness. item includes sulphates resisting cement . Stone material, size, and texturing shall be in accordance with Engineer's instructions and approval. including flexible expansion joint each 6 m, Cutting, shaping and building of stone shall be in straight angles, no twisting, distortion or uneven sizes shall be allowed. The price included any work to finish work as per specifications and workmanship recommendations.</p>	m <sup>2</sup>	43.2
1-2-5	<p><b>Supply and cast reinforced concrete class(C28) using sulphates resisting cement for ground beam(30x50cm)</b> for the new wall foundation. Including flexible expansion joint each 6 m, cement , formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40) 4Ø 16 top and 4Ø 16 bottom, and 1Ø 8 @ 200 mm for the stirrup, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. The price include surface leveling, making good the harmed surfaces and edges and all surface finishing as per specifications and workmanship recommendations. Making holes in the exiting wall from both sides, imbedded the bars in this holes, grouting, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.</p>	m3	12.96
1-2-6	<p><b>Base Stone Works :</b> Supply and Build base black "BASILTE" for the wall using sulphates resisting cement 1:3in first class with 30 cm thickness. each layer of the stone is 15 cm thickness, the middle filling shall be 60% concrete and 40% stone. Stone material, size, and texturing shall be in accordance with Engineer's instructions and approval. including flexible expansion joint each 6 m, Cutting, shaping and building of stone shall be in straight angles, no twisting, distortion or uneven sizes shall be allowed. The price included any work to finish work as per specifications and workmanship recommendations.</p>	m2	259.2
1-3	<p><b>Steel Work For Gate:</b> Supply and Install sliding Door steel for at main entrance of the building. Refer to the attached drawings. The work includes steel tubes adjoining vertically (tube 100x50x1.25 mm) without leaving any space between the sections , outer steel frames (tube 50mmx 100mmx5mm), and plate 6 mm thickness as a covering plate above vertical tubes in both sides total plate thickness is (12mm). Door panel to be fixed at the top and bottom with sliding curvature wheels running in galvanized steel truck. 2x3 I-section 20x10x8mm at sides and middle as vertical columns (total No. of columns are 6) as per drawings, beam in the top with steel U shape 10 x 5 x 6mm . This item also includes reinforced concrete base plinth beam for columns (7.4 mx30cm and 40cm high) using sulphates resisting cement along the sliding gate, 6 foundations for the steel columns with ( 70 cm *50cm*50 cm) with 5 Ø 14 / m as a box from the both directions, trucking wheel 15 cm * 6, trucking wheel in the top 8 with size 5cm , guiding bar 25 mm , I-section of 20x10x8mm under below of guiding bar. The item includes sandpapering, painting with anti-rust, and anti-humidity paint, painting two layers ( water proof ) all excavation work and backfilling with appropriate material, carriage away debris, repaving. The item includes removing the concrete hump if required or part of it and preparing ground along sliding door. The price included all civil work to complete the work as per drawings, specifications, and direction of Engineer. (actual dimensions should be taken from site)</p>	m2	11.9
1-4	<p><b>Anti-Blast doors with 8 mm thickness two sides (one leaf) :</b> Supply and install anti-Blast doors of solid steel for the emergency exit at the back of the yards with steel angles and frames of approved quality and thickness. It also includes brass joint, locks and handles, painting with anti-rust, and anti-humidity paint, painting two layers ( water proof ) , and all finishing works according to drawings and technical specifications. Blast-Resistant External Frame size 20cm *10 *5mm*2 - Blast-Resistant Internal Frame size 50mm * 100mm * 3 mm - A Tube with size 50 mm *50 mm * 3 mm to distribute it each 40 cm horizontal and vertical. - Steel door full metal plate 8 mm thickness two sides (16 mm) - Heavy Weight Hinges with Welded Knuckles 45 mm *15cm *4 -Hex Bolt on Concrete Anchor size D 20mm* 20 cm* 6 in each direction -Plate thickness 6mm under the door - Flat-Head Concrete Anchor -Manual lock inside 3 *400mm*30mm *2 in both side. - mechanical locked (Kale or equivalent ) - peep hole. - electrical cable . - Insulator. - Four hole Plug-in frame each side of the door - 35mm *45 mm and two bars with 25 cm* 25 cm length 5 cm to be weld in the frame of the door - replace the existing doors and demolition the block in front of the door.</p>	m2	3

1-5	<p>Heavy duty motor :</p> <p>Supply, install, connect, test and commissioning of heavy duty motor (Gearmotor (hydraulic )) for the siding gate with 3500 kg with power supply voltage 400v 3ph, motor ratio speed 1400 r.m.p item include steel housing protected by catastrophic treatment, polyester painting, chain, connecting with electricity, cable, circuit breaker, water proof socket, and all the requirement to finish this item according to technical specification and supervisor engineer instruction.</p>	No.	1
1-6	<p><b>Door closer for 8 mm doors :</b></p> <p>Supply and install heavy duty automatic door closer that fixed on Armored Door type (union 8825 or equivalent) . And all accessories to finish work as per specifications and manufacturer recommendations.</p>	No.	1
1-7	<p><b>Boom gate :</b></p> <p>Supply and installation of Boom gate at main street outside at the perimeter. item includes two galvanized iron pipe 5 -meter clear distance with 6 inches dia and thickness 6mm.- four stands GI 6 inches dia. and 1.20 m height, GI pin for rotation not less than 50mm dia. This item includes four reinforced concrete foundations (C25) sizes (0.6x0.6m and height 0.8m) using sulphates resisting cement, as per drawings and all to the full satisfaction of engineer. Solid Mass as dead weight shall be adding at one end of GI horizontal pipe with steel box 8mm thickness. And the price includes panting with primer paint and red and white paints(Water proof) and the robe 10m length. The price included get a ride of the any work and all accessories to finish work as per specifications and engineer direction.</p>	No.	1
1-8	<p><b>T-Walls:</b></p> <p>Supply and install Twalls in the street (1.2*1.60*3 m height ). Item includes all form works and shuttering shall be new. Reinforced concrete must include steel reinforcement with Fy 280 Grade 40, Supplying, Casting, vibrating, workmanship, forms, testing and providing test results certificates, plain concrete under the twalls with 10 cm thickness, storing and saving of samples, and curing concrete with 'fc=35Mpa, smooth face, plastering, Painting with water proof paint at least three layers, cable to connect all t-walls with 20 mm thickness withinsulation,transferring, and All works must be in accordance with specifications, drawings and supervisor engineer instructions.</p>	NO	59
1-9	<p><b>Concertina/Razor wires :</b></p> <p>Supply and install (anti-rust) Concertina/Razor wires size 60cm dia. double layers and accessories over the perimeter wall and T-wall, the work includes: painting with anti-rust and anti humidity paint</p> <ul style="list-style-type: none"> <li>- razor sharp steel blades 2.5mm diameter three layers</li> <li>- Using L-section with 5 * 5* 3 mm in V-shape every 1.5 meter to attached the concertina/razor wire on top T-wall with baseplate, making a hole in the t wall and wall, removing the existing razor wire, all works must be in accordance with specifications, drawings and supervisor engineer instructions.</li> </ul>	L.m	164.4
1-10	<p>Anti-vision screen above existing wall 3meter height :</p> <p>Supply and install anti-vision screen above existing wall 3-meter height, around the building as per drawings, and the work includes:</p> <ul style="list-style-type: none"> <li>- Net clear height above existing wall 3 meter</li> <li>- Weatherproof Polyethylene Shade made of a UV stabilized high density polyethylene, shading rate 95%, Fire Rating according to ASTM E84</li> </ul> <p>, nominal fabric mass 435gsm, approximate thickness 1.8mm, tensile strength -warp 870N/50mm, elongation at break 112%, tensile strength -weft 1870N/50mm, wing tear-warp 172N, wing tear-weft 301N, bursting pressure 3600 Kpa, bursting force 2075 KN, flex cracking resistance 400,000+cycles. Thread Shall be 100% expanded PTFE fiber which carries a 10-year warranty that is high strength and low shrinkage, shall have a wide temperature and humidity range, Abrasion resistant and UV radiation immunity, shall be unaffected by non-hydltalianrbon-based cleaning agents, acid rain, mildew, rot, chlorine, saltwater, and pollution, Lockstitch thread – 1200 Denier or equal.</p> <p>Chain stitch thread – 2400 Denier or equal. SEWING, on-site sewing of a fabric will not be accepted, all corners shall be reinforced with extra non-tear cloth and strap to distribute the load, the perimeters that contain the cables shall be double lock stitched.</p> <p>Supply and install steel H section columns with 18*9 * 8 mm each 6 m , frame for the Weatherproof Polyethylene Shade is steel tube section 60*30*1.25 mm as outer frame, and steel tube section 60*30*1.25mm distributed vertical and horizontal each 1.5m , secondary beam with tube section steel section 8 * 4cm *2mm to be distributed each 1.5 m a long the column height, connections plate.</p> <ul style="list-style-type: none"> <li>- RC foundations sing sulphates resisting cement with (100x100x70cm) with 5Ø14/m rebar on both directions as a box including soil cut and backfill using .</li> <li>- Base plate 35x15cm 12mm thick, 4 anchor bolts 20mm Dia 50cm long for each column.</li> <li>- Fixing to the existing wall.</li> <li>- making double polyethylene at the edge of the frame and install extra metal sheet around the frame to fix the polyethylene in the frame.</li> <li>- Paining all steel elements with anti-rust, and anti-humidity paint, painting two layers ( water proof )</li> </ul> <p>-Excavation, cutting the tiles, re-install tiles, and transferring the debris outside the site.</p> <p>-supply, implement, and paint special material termites repellent consist of ( Ursban herbicide + water) solution under each foundation.</p> <p>The work includes welding, fixing the shade and all accessories and civil work to complete the item as per drawings, specifications, and directed by engineer. (Measurement method would be calculated based on cloth area only, not from the base)</p>	m2	504
1-11	<p><b>Supply and install steel shade and Sand Bags barrier at generator room at yard [2.5m (width) x 8.5 m (long) x 3.5m (height)] – actual dimensions must be taken from site before executing, the item includes:</b></p>		
1-11-1	<p>Excavation works for, any type of soil (soft, rigid, and semi-rock), foundations of steel shade and generator with 70 cm depth, for the underground beams . This item includes backfill , lifting of all waste outside the site, watering ,compaction to obtain hard ground against subsidence, the compaction should not be less than 98% of MDD,and all necessary works to prepare the ground for foundations according to drawings , technical specifications and instruction of supervisor engineer.</p>	m3	15
1-11-2	<p><b>Termites Repellent :</b></p> <p>supply, implement, and paint special material termites repellent consist of ( Ursban herbicide + water) solution under each foundation and under the generator foundation, the phase of implementation as following:</p> <p>at least spraying this solution twice with ratio 1 liter of herbicide per 50 liter pure water this coved 10 m square for beneath the Joam an under the plain concrete of the floor. Item includes spray this solution, then backfill with 10 cm of soil, adding oil for outside work , backfill, spay second time of the solution, all materials, workmanship &amp; tools, transporting, closing the holes, and all the requirements to finish this item according to as per manufacture instructions and codes of practice, and direct instructions by the Engineer</p>	m2	64
1-11-3	<p>supply and cast strip RC foundation 80x80cm and 60 cm depth with 5 Ø 14 @200 mm as a box using sulphates resisting cement. Item includes insulation with polyethylene, all form works and shuttering shall be new, steel reinforcement with Fy 280 Grade 40, vibrating, workmanship, sleeves, testing and providing test results certificates, storing and saving of samples, and curing concrete with 'fc=30 Mpa, smooth face. All works must be in accordance with specifications, drawings and supervisor engineer instructions.</p>	m3	2.55
1-11-4	<p>Supply and cast beams with 30 cm x 30 x 30 cm with 5m length under the metal grill doors using sulphates resisting cement . Item includes insulation with polyethylene, all form works and shuttering shall be new, steel reinforcement with Fy 280 Grade 40, vibrating, workmanship, sleeves, testing and providing test results certificates, storing and saving of samples, and curing concrete with 'fc=30 Mpa, smooth face. All works must be in accordance with specifications, drawings and supervisor engineer instructions.</p>	m3	1.8
1-11-5	<p>Supply and install IPE 200 for the columns and beams with 12 m length , item includes base plate with30 cm * 15 cm with 14 mm thickness , anchor bolt 4 x D 20 mm and 50 cm length, connection with hunch, cutting if it necessary, lifting, all steel parts must be coated by two layers of anti-rust coating and anti-moisture paint, grouting , two layers water proof painting , welding electrode, and all the required works to finish this item , according to drawings,technical specifications and instructions the supervising engineer</p>	NO	3

1-11-6	Supply and install IPE 200 for the middle beam with 6 m length , item includes base plate with 30 cm * 15 cm with 14 mm thickness , anchor bolt 4 x D 20 mm and 50 cm length, connection with hunch, cutting if it necessary, lifting, all steel parts must be coated by two layers of anti-rust coating and anti-moisture paint, two layers water proof painting , welding electrode, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	NO	1
1-11-7	Supply and install IPE 140 for the secondary beams each 100 cm with 12m length, item includes cutting if it necessary, lifting, all steel parts must be coated by two layers of anti-rust coating and anti-moisture paint, two layers water proof painting , welding electrode, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	NO	8
1-11-8	Supply and install steel sheets ,made of cold rolled steel of 300 Mpa minimum strength conforming ASTM A366 , for the roof with 4 mm thickness item includes welding, above the secondary beam each every 50 cm, cutting if it necessary, lifting, all steel parts must be coated by two layers of anti-rust coating and anti-moisture paint, two layers water proof painting , welding electrode, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	m2	33
1-11-9	supply and install sand bags from tarpaulin isolate heat and moisture above the felt layers with 10 cm. Item includes fine sand ,tarpaulin, waving, water proof tarpaulin under the sandbags, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer. The contractor should provide a sample before implementing the work	m2	33
1-11-10	Supply and install Grill with tube steel frame with 80 x40 x4 mm, vertical steel tube with size 40 x40 x 4mm, the spacing between vertical steel about 40cm surrounding by double Diamond metal grill with 4.8 mm thickness, anchored by galvanized steel bolts (Hilti-rated), 20mm Dia. And 200 mm length into beam each 30 cm , reinforced concrete beam with 30 *30 cm and 4 Ø 12 each 20 cm. Item includes door with size 1.00 * 2.20, 3 hinges, locked , welding, cutting, hoisting, fixing in position, workmanship, water proof painting (base coat & min. 3-coats of water proof painting approved color and antirust and anti moisture painting, cutting, blending of sheets to the required shape , painting, welding electrode and all the required works to finish this item , according to drawings, technical specifications, and instructions the supervising engineer.	m2	55
1-11-11	Supply and cast ready mix concrete for foundation of the generator with 20 cm depth and two layers 6Ø 12 / m in both direction , item includes anti-vibration rubber with 10 mm thickness, 10 cm loam or small stones, all form works and shuttering shall be new, steel reinforcement with Fy 280 Grade 40, vibrating, workmanship, sleeves, testing and providing test results certificates, storing and saving of samples, and curing concrete with 'f'c=30 Mpa, smooth face. excavation with 10 cm , compacting. All works must be in accordance with specifications, drawings and supervisor engineer instructions.	m3	5.4
1-12	<b>Fuel Tank</b>		
1-12-1	<b>Steel Fuel Tank :</b> Supply, install, test and commissioning cylinder steel Fuel tank, the capacity is 6000 Liter, the steel thickness shall be 6 mm min. Item includes welding, painting with three layers of rust-resistant ( epoxy or equivalent ), sandpapering, fittings, connecting all (in/out) pipes, valves, fittings, pipe nipples, pipe nuts, pipe unions, brass fitting adapters, base-frame with 40 cm height , steel tank cover with 60 cm x 60 cm, opening for cleaning, ventilation hole with its pipes, and all required accessories to finish this item according to drawings, specifications, and engineer's instructions.	No.	1
1-12-2	<b>Diesel tank automatic refilling (Day Tank )</b> Supply, install, test and commissioning complete over the ground, vertical diesel steel tank automatic refilling (day tank ), capacity is 1000 Liter, the steel thickness shall be 4mm min. Item includes welding, painting with two layers of rust-resistant, sandpapering, connecting all (in/out) pipes steel carbon pipes with .5 in with 6 mm thickness , strainer, valves, fittings, pipe nipples, pipe nuts, pipe unions, float switch automatic refilling, automatic diesel tank level gauge ATG, opening for cleaning, fuel level gauge, ventilation hole with its pipes, and all required accessories to finish this item according to drawings, specifications, and engineer's instructions.	unit	1
1-12-3	Supply installation and commissioning of a pump for the diesel tank (Italian or equivalent) with capacity 1 horse. Item includes connecting the pump with the electricity, switch, cable with 2.50 mm x 4, conduit, fittings, pipe nipples, pipe nuts, and all the requirement to finish this item according to specifications, drawings and supervisor engineer instructions.	NO.	1
1-12-4	supply, install, pressure testing galvanized steel Pipe with 5/4 in diameter and 3 mm thickness in order to connect between the main tank and day tank (Return pipe). Item includes painting, excavation, refilling, valves, flanges, fittings, pipe nipples, pipe nuts, pipe unions, and all accessories to finish this item according to specifications, drawings and supervisor engineer instructions.	L.M	10
1-12-5	supply, install, pressure testing galvanized steel Pipe with 1 in diameter and 3 mm thickness in order to connect between the main tank and day tank (Supply pipe). Item includes painting, excavation, refilling, valves, flanges, fittings, steel stopper at the end of the pipe, pipe nipples, pipe nuts, pipe unions, and all accessories to finish this item according to specifications, drawings and supervisor engineer instructions.	L.M	10
1-12-6	Supply, install, pressure testing carbon steel Pipe with 0.50 in diameter and 4 mm thickness in order to connect between the day tank and generators (Supply and return pipe). Item includes painting, excavation, refilling, valves, flanges, fittings, and all accessories to finish this item according to specifications, drawings, and supervisor engineer instructions.	L.M	20
1-12-7	Supply and install exhaust galvanized pipes with 3 in diameter and 5mm thickness for generator. Item includes flexible expansion joint of multiple corrugated stainless steel shall be provided between engine exhaust manifold and exhaust piping, painting with zinc chromate primer and black enamel paint, and all accessories to finish this item according to specifications, drawings, and supervisor engineer instructions.	L.M	6
1-12-8	<b>Fuel Filter :</b> Supply, install, test and commissioning of fuel tank filter (Petrol ) to remove particles and water. Filter with 5 micron, transfer capacity is 105 liters Per Min, water repellent filtering paper with water decanting of 93 % , maximum working pressure 5 bar, 500,000 liter filtering capacity ,upper microfilter housing Aluminum , drain valve, inlet / outlet flanges or threads.	NO	2
1-12-9	<b>Steel Pipes:</b> supply, install, pressure testing galvanized steel Pipe with 3 in diameter and 5 mm thickness in order to connect between the main tank and outside. Item includes excavation with at least 80 cm, insulation with anti-rust and humidity paint, make a hole in the wall,, fixing , refilling, steel stopper at the end of the pipe (outside), valves, flanges, fittings, pipe nipples, pipe nuts, pipe unions, protection box with 8 mm thickness with locked and all accessories to finish this item according to specifications, drawings and supervisor engineer instructions.	L.M	35
1-12-10	<b>Fuel meter:</b> Supply and install content measurement system for the main tank in order to measure the fuel level , legible 5-digit LED display in the desired unit (liters, gallons etc.) , item pressure fuel sensor (0-4 )m, external battery, protection box, connecting with electricity, with 2.5 mm+ 1.5 with 13 A circuit breaker in the main board, include excavation in tiles/asphalt, compacted backfilling, and tiling of trench 30cm (width)x50cm(depth), PVC pipes . Including demolishing holes in concrete walls/ concrete flooring wherever required to lay down the cable, water proof switch 13 A, pumping system connection, fire valve, fixing the pump with concrete foundation , and all necessary work to finish this item according to technical specification and instruction of the supervision engineer.	Set	1
<b>II</b>	<b>Works inside Villa</b>		

2	<b>Armor doors and windows</b>		
2-1	<p><b>Anti-Blast doors with 8 mm thickness two sides (one leaf) :</b> Supply and install anti-Blast doors of solid steel for the doors , with steel angles and frames of approved quality and thickness. It also includes brass joint, locks and handles, painting with anti-rust, and anti-humidity paint, painting two layers ( water proof ), and all finishing works according to drawings and technical specifications. Blast-Resistant External Frame size 20cm *10 *5mm*2 - Blast-Resistant Internal Frame size 50mm * 100mm * 3 mm - A Tube with size 50 mm *50 mm * 3 mm to distribute it each 40 cm horizontal and vertical. - Steel door full metal plate 8 mm thickness two sides (16 mm) - Heavy Weight Hinges with Welded Knuckles 45 mm *15cm *4 -Hex Bolt on Concrete Anchor size D 20mm* 20 cm* 6 in each direction -Plate thickness 6mm under the door - Flat-Head Concrete Anchor -Manual lock inside 3 *400mm*30mm *2 in both side. - mechanical locked (Kale or equivalent ) - peep hole. - electrical cable . - Insulator. - Four hole Plug-in frame each side of the door - 35mm *45 mm and two bars with 25 cm* 25 cm length 5 cm to be weld in the frame of the door - replace the existing doors if it is necessary.</p>	m2	14
2-2	<p><b>Anti-Blast doors with 8 mm thickness two sides (two-leaf) :</b> Supply and install anti-Blast doors of solid steel for the main doors ( two leaf ), with steel angles and frames of approved quality and thickness. It also includes brass joint, locks and handles, painting with anti-rust, and anti-humidity paint, painting two layers ( water proof ), and all finishing works according to drawings and technical specifications. Blast-Resistant External Frame size 20cm *10 *5mm*2 - Blast-Resistant Internal Frame size 50mm * 100mm * 3 mm - A Tube with size 50 mm *50 mm * 3 mm to distribute it each 40 cm horizontal and vertical. - Steel door full metal plate 8 mm thickness two sides (16 mm) - Heavy Weight Hinges with Welded Knuckles 45 mm *15cm *8 -Hex Bolt on Concrete Anchor size D 20mm* 20 cm* 6 in each direction -Plate thickness 6mm under the door - Flat-Head Concrete Anchor -Manual lock inside 3 *400mm*30mm *2 in both side. - mechanical locked (Kale or equivalent ) - peep hole. - electrical cable . - Insulator. - Four hole Plug-in frame each side of the door - 35mm *45 mm and two bars with 25 cm* 25 cm length 5 cm to be weld in the frame of the door - replace the existing doors if it is necessary.</p>	m2	3.5
2-3	<p><b>Door D3:</b> Supply and install door of solid steel for the doors , with steel angles and frames of approved quality and thickness. It also includes brass joint, locks and handles, painting with anti-rust, and anti-humidity paint, painting two layers ( water proof ), and all finishing works according to drawings and technical specifications. - External Frame size 15cm *10 *1.5mm*2 - Internal Frame size 40mm * 80mm * 1.5 mm - A Tube with size 40 mm *40 mm * 1.25 mm to distribute without leaving any space between them. - Steel door full metal plate 1.25 mm thickness two sides (2.5 mm) - Heavy Weight Hinges with Welded Knuckles 12 mm *12cm *3 -Hex Bolt on Concrete Anchor size D 20mm* 20 cm* 6 in each direction - Flat-Head Concrete Anchor - Electrical locked (Kale 1000 or equivalent ) - peep hole. - Door closer</p>	m2	2.6
2-4	<p><b>Door closer for 8 mm doors :</b> Supply and install heavy duty automatic door closer that fixed on Armored Door type (union 8825 or equivalent) . And all accessories to finish work as per specifications and manufacturer recommendations.</p>	NO.	6
2-5	<p><b>Anti-Blast Windows for Safe Haven:</b> Supply and install anti-Blast Windows of solid steel for the safe have, with steel angles and frames of approved quality and thickness. It also includes brass joint, locks ( mechanical locks, manual locks ) and handles, painting with anti-rust, and anti-humidity paint, painting two layers ( water proof ), all accessories and all finishing work according to drawings, technical specifications, and instruction of supervisor engineer. 1- Blast-Resistant Internal Frame size 10cm *20cm * 5 mm* 2 2- Steel window full metal plate 8 mm thickness two sides (16mm). 3-Three heavy Weight Hinges with Welded Knuckles with size D 45 mm *12 cm 4-Tube to fix plate on it with size 100 mm *50 mm * 3mm 5.A Tube with size 50 mm *50 mm * 3 mm to distribute it each 40 cm horizontal and vertical. 6-Four Hex Bolt on Concrete Anchor for each side size D18mm* 18 cm. 7-three Hole Plug-in frame each side of the window - 35mm *45 mm and tow bar with 25 cm* 25 cm length 5 cm to be weld in the frame of the window 8.Manual lock inside 2 with 400 * 30 mm 9.insulator 10. replace the existing windows to be outward.</p>	m2	2
<b>3</b>	<b>Explosive Threat Mitigation</b>		
3-1	<p><b>Removal works :</b> Remove the existing metal windows with its metal grill in order to reduce the size of the window. price includes fixing the crack around the windows using Epoxy material, plastering, making the opening ready for the block work. Item includes remove remaining obstacles such as wooden plate, concrete, stones, soil that mixed with demolishing debris.... etc., all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost ( in case the owner does not need it ), stacking steel materials without damage to be reused and all the required work to finish this item as per specifications, conditions and direct instructions by the Engineer or his representative.</p>	No.	18
3-2	<p><b>Removal works :</b> Remove the existing Aluminum door, windows and partition. price includes fixing the crack around the doors using Epoxy material. Item includes remove remaining obstacles such as wooden plate, concrete, stones, soil that mixed with demolishing debris.... etc., all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost ( in case the owner does not need it ), stacking steel materials without damage to be reused and all the required work to finish this item as per specifications, conditions and direct instructions by the Engineer or his representative.</p>	No.	4

3-3	<b>Solid Block Works:</b> supply and install block building using solid blocks (size 20x20x40) for closing door and reducing the window size it should be done using a cement mortar 1:3 cement-sand. The building should be balanced and interlinked. Price includes all associated works such as watering, materials, placing of approval blocks, workmanship, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m <sup>2</sup>	50
3-4	<b>Supply and make external plastering 20 mm thick for walls</b> using sulphates resisting cement with four faces: the first is the rough nail rendering (mix 1:1) cement: sand, the second is 5mm thick mortar (mix1: 2) cement: sand, the third is the undercoat 13mm (mix 1: 3) cement: sand, the fourth is make Finishing Coat, smooth surface with (1:1) cement: sand mortar. and all this is according to specifications, drawings and supervisor engineer's instructions	m <sup>2</sup>	50
3-5	<b>Supply and make internal plastering 12 mm thick for walls</b> using with two faces: the first is the rough nail rendering (mix 1:1) cement: sand second layer 13mm: Base-Coat "Rendering" with (1:3) cement: sand mortar. Works include all materials needed to finish the works according to specifications, drawings and supervisor engineer's instructions.	m <sup>2</sup>	50
3-6	<b>Supply materials and make anti humidity and water proof emulsion paint for external walls</b> , sanding, priming, putty, under coat, and finishing coats to least three layers, all according to Drawings, Specifications and instructions of the Engineer. The price should include preparing surface, clean, remove dust.	m <sup>2</sup>	50
3-7	<b>Supply and apply two coats of oil paints on internal walls.</b> Price shall include surface preparation, priming, and putty. All according to Drawings, Specifications and instructions of the Engineer.	m <sup>2</sup>	50
3-8	<b>Aluminum windows ground floor:</b> Supply and install Aluminum windows width 1.0 m and 1.2 height with 1.5mm special section . Item includes silicon sealant, supplying, workmanship, rubber, fixation, hinges, double glass 6mm each layer, handles. item includes all necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	NO	8
3-9	<b>Aluminum windows ground floor:</b> Supply and install Aluminum windows width 1.0 m and 1.2 height with 1.5mm special section . Item includes demolition in order to make an opening for the window, plastering, painting three layers, lintel ,silicon sealant, supplying, workmanship, rubber, fixation, hinges, double glass 6mm each layer, handles. item includes all necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	NO	2
3-10	<b>Aluminum windows ground floor:</b> Supply and install Aluminum windows width 0.60m and 1.0m height with 1.5mm special section . Item includes demolition in order to make an opening for the window, plastering, painting three layers, lintel, silicon sealant, supplying, workmanship, rubber, fixation, hinges, double glass 6mm each layer, handles. item includes all necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	NO	2
3-11	<b>Aluminum windows ground floor:</b> Supply and install Aluminum windows width 0.60m and 1.0m height with 1.5mm special section . Item includes silicon sealant, supplying, workmanship, rubber, fixation, hinges, double glass 6mm each layer, handles. item includes all necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	NO	1
3-12	<b>Aluminum windows First floor:</b> Supply and install Aluminum windows width 1.0 m and 1.2 height with 1.5mm special section . Item includes silicon sealant, supplying, workmanship, rubber, fixation, hinges, double glass 6mm each layer, handles. item includes all necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	NO	5
3-13	<b>Aluminum windows First floor:</b> Supply and install Aluminum windows width 1.0 m and 1.2 height with 1.5mm special section . Item includes demolition in order to make an opening for the window, plastering, painting three layers, lintel ,silicon sealant, supplying, workmanship, rubber, fixation, hinges, double glass 6mm each layer, handles. item includes all necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	NO	1
3-14	<b>Aluminum windows First floor:</b> Supply and install Aluminum windows width 0.60m and 1.0m height with 1.5mm special section . Item includes demolition in order to make an opening for the window, plastering, painting three layers, lintel, silicon sealant, supplying, workmanship, rubber, fixation, hinges, double glass 6mm each layer, handles. item includes all necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	NO	1
3-15	<b>Aluminum windows First floor:</b> Supply and install Aluminum windows width 0.60m and 1.0m height with 1.5mm special section . Item includes silicon sealant, supplying, workmanship, rubber, fixation, hinges, double glass 6mm each layer, handles. item includes all necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	NO	2
3-16	<b>Metal grill for the windows:</b> Supply and Install metal bars grill for all windows in the first and ground floor .The bar size 12 x12 mm, steel bars decorative (standard shape), approx. the spacing between bars about 10cm in the two directions, the window edges angle (L- section) L 50 x50x 5 mm, anchored by galvanized steel bolts (Hilti-rated)15mm dia. And 150 mm length into concrete/stone wall each 30 cm . Item includes welding, cutting, hoisting, fixing in position, workmanship, oil painting (base coat & min. 2-coats of oil painting approved color( water proof), according to the technical specifications, drawings, and instruction of supervisor engineer.	m <sup>2</sup>	68
3-17	<b>Anti-blast film to protect windows.</b> Supply and install SRF (Anti-Shatter Resistance Films) on all Glass Windows all floors. The film color is clear. The film shall have a nominal thickness 0.304 mm (12 mil).Item include all the requirement to finish this item according to the technical specifications, instruction of supervisor engineer. The contractor must submit a sample before implemented the work	m <sup>2</sup>	130
3-18	<b>Frame catchers window :</b> Supply and Install frame catchers window from cable restraint systems D12 mm. It should be installed every 20 cm between the cables lines and fixed bolt D16 mm, hock with D16 mm and steel U 12 * 6. Item includes steel plate with 8 mm thickness, drilling, insulation the cable with plastic, block up the hole by silicon and inside the U section, and all necessary parts needed to complete the works are according to drawings, specifications, conditions and directed instructions by the Engineer or his representative	m <sup>2</sup>	220
<b>4</b>	<b>ACCESS CONTROL FOR PEDESTRIAN</b>		
4-1	<b>Demolition works :</b> Demolition for the perimeter wall in order to build the access control for pedestrian, and parapet Item includes removing the gate, demolish the existing concrete layer ,and the soil and blocks of the planting area. Item includes removing all remaining obstacles such as block, concrete, stones, soil that mixed with demolishing debris.... etc., all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, make the site ready to start excavation work , and all the necessary work to finish this item as per specifications and directed by the engineer.	lump.	1
4-2	<b>Earthwork excavation:</b> Earthwork excavation for mat foundation of any kind of soil to the dimensions and levels shown in drawings. Item include scrapping off sidewalk, curb stone. Price to include backfilling with excavated soil if suitable or substituting same with selected approved imported soil, and removal of extra and unsuitable soil. Back filling shall be on layers of 200 mm thick with watering and compacting to (95%) of MDD. The item includes Disposing surplus excavated soils outside the site.	m <sup>3</sup>	67

4-3	<b>Termites Repellent :</b> supply, implement, and paint special material termites repellent consist of ( Ursban herbicide + water) solution, the phase of implementation as following: at least spraying this solution twice with ratio 1 liter of herbicide per 50 liter pure water this coved 10 m square for under the plain concrete of the floor. Item includes spray this solution, then backfill with 10 cm of soil, adding oil for outside work , backfill, spay second time of the solution, all materials, workmanship & tools, transporting, closing the holes, and all the requirements to finish this item according to as per manufacture instructions and codes of practice, and direct instructions by the Engineer	m <sup>2</sup>	42
4-4	<b>CONCRETE WORK</b>		
4-4-1	<b>Plain concrete using sulphates resisting cement with thickness 20 cm:</b> Supply and Cast ready mix Concrete for the plain concrete under the mat foundation with 20 cm depth with a minimum cement content of 300 Kg per cubic meter. Price include rebar 5Ø10 /m in both directions. Item include all form works, removal of forms, insulation the foundation with polyethylene , cleaning of all exposed tie wires and rods, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	m <sup>3</sup>	11.3
4-4-2	<b>Supply and cast reinforced concrete class(C28) using sulphates resisting cement for mat foundations,</b> including formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40), size and length as detailed in the drawings, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. The price include surface leveling, making good the harmed surfaces and edges and all surface finishing as per specifications and workmanship recommendations.	m <sup>3</sup>	15.2
4-4-3	<b>Supply and cast reinforced concrete C28 using for concrete wall of thickness 30 cm</b> including formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40), size and length as detailed in the drawings, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. Item include Preliminary installations for Electrical, plumbing and floor drainage in concrete slabs, beams, and any concrete elements wherever required. The price include surface leveling, finishing as per specifications and workmanship recommendations.	m <sup>3</sup>	40.2
4-4-4	<b>Supply and cast reinforced concrete C28 using for concrete wall of thickness 20 cm</b> including formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40), size and length as detailed in the drawings, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. Item include Preliminary installations for Electrical, plumbing and floor drainage in concrete slabs, beams, and any concrete elements wherever required. The price include surface leveling, finishing as per specifications and workmanship recommendations.	m <sup>3</sup>	14.8
4-4-5	<b>Supply and cast reinforced concrete C28 using for solid slab of thickness 30 cm</b> including formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40), size and length as detailed in the drawings, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. Item include Preliminary installations for Electrical, plumbing and floor drainage in concrete slabs, beams, and any concrete elements wherever required. The price include surface leveling, finishing as per specifications and workmanship recommendations.	m <sup>3</sup>	15.2
4-4-6	<b>INSULATION WORKS.</b> Supply and install waterproof (flex acrylic or equivalent) with four heavy layers of waterproof for the roof of the building. Item includes plain concrete for screed to roof slab, cast to falls not less than 3 cm thickness in drain point, rate to include lining and hunching 15x15cm with 45 degrees to the side of roof screed and parapet, cleaning , filling cracks with the epoxy material , fiber net coating layer after the second layer, joints overlapping, testing and all necessary material to complete the works as shown in the drawings and as per manufacturer instructions and codes of practice and specifications and engineer's instructions.	m <sup>2</sup>	50.6
4-5	<b>PLASTERING &amp; PAINTING WORKS</b>		
4-5-1	<b>Supply and make external plastering 20 mm thick for walls</b> using sulphates resisting cement with four faces: the first is the rough nail rendering (mix 1:1) cement: sand, the second is 5mm thick mortar (mix1: 2) cement: sand, the third is the undercoat 13mm (mix 1: 3) cement: sand, the forth is make Finishing Coat, smooth surface with (1:1) cement: sand mortar. and all this is according to specifications, drawings and supervisor engineer's instructions.	m <sup>2</sup>	150
4-5-2	<b>Supply and make internal plastering 12 mm thick for walls</b> using with two faces: the first is the rough nail rendering (mix 1:1) cement: sand second layer 13mm: Base-Coat "Rendering" with (1:3) cement: sand mortar. Works include all materials needed to finish the works according to specifications, drawings and supervisor engineer's instructions.	m <sup>2</sup>	235
4-5-3	<b>Supply and make internal plastering 12 mm thick for ceiling</b> using with two faces: the first is the rough nail rendering (mix 1:1) cement: sand, second layer 13mm: Base-Coat "Rendering" with (1:3) cement: sand mortar. Works include all materials needed to finish the works according to specifications, drawings and supervisor engineer's instructions.	m <sup>2</sup>	44
4-5-4	<b>Supply materials and make anti humidity and water proof emulsion paint for external walls ,</b> sanding, priming, putty, under coat, and finishing coats, all according to Drawings, Specifications and instructions of the Engineer. The price should include preparing surface, clean, remove dust.	m <sup>2</sup>	150
4-5-5	<b>Supply and apply two coats of oil paints on internal walls.</b> Price shall include surface preparation, priming, and putty. All according to Drawings, Specifications and instructions of the Engineer.	m <sup>2</sup>	235
4-5-6	<b>Supply and apply two coats of water paints on ceiling.</b> Price shall include surface preparation, and putty.	m <sup>2</sup>	44
4-6	<b>FLOOR TILING:</b>		
4-6-1	<b>Plain Concrete under the floor tiles :</b> Supply and Cast ready mix Concrete for the plain concrete under the floor with 10 cm depth with a minimum cement content of 250 Kg per cubic meter. Item include all form works, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer.	m <sup>3</sup>	4.2
4-6-2	<b>Supply and install non-slipping ceramic floor tiles size 40×40×0.8 cm.</b> The price should include 2.5cm mortar bed and 10cm thick sand bed, cutting& trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.	m <sup>2</sup>	44
4-6-3	<b>skirting</b> Supply and install Ceramic skirting(Spain-made or equivalent) with size 60x10*.8 cm for all walls the same kind and color of the floor tiles including smoothing the surfaces and edges as per specifications, drawings, and the engineer's instructions or his representative.	L.m.	50
4-7	<b>Steel Works</b>		

4-7-1	<p><b>Anti-Blast doors with 8 mm thickness two sides (one leaf) :</b>  Supply and install anti-Blast doors of solid steel for the doors , with steel angles and frames of approved quality and thickness. It also includes brass joint, locks and handles, painting with anti-rust, and anti-humidity paint, painting two layers ( water proof ), and all finishing works according to drawings and technical specifications.  Blast-Resistant External Frame size 20cm *10 *5mm*2  - Blast-Resistant Internal Frame size 50mm * 100mm * 3 mm  - A Tube with size 50 mm *50 mm * 3 mm to distribute it each 40 cm horizontal and vertical.  - Steel door full metal plate 8 mm thickness two sides (16 mm)  - Heavy Weight Hinges with Welded Knuckles 45 mm *15cm *4  -Hex Bolt on Concrete Anchor size D 20mm* 20 cm* 6 in each direction  -Plate thickness 6mm under the door  - Flat-Head Concrete Anchor  -Manual lock inside 3 *400mm*30mm *2 in both side.  - mechanical locked (Kale or equivalent )  - peep hole.  - electrical cable .  - Insulator.  - Four hole Plug-in frame each side of the door - 35mm *45 mm and two bars with 25 cm* 25 cm length 5 cm to be weld in the frame of the door  - replace the existing doors if it is necessary.</p>	m2	15
4-7-2	<p><b>Anti-Blast doors with 8 mm thickness two sides (two-leaf) :</b>  Supply and install anti-Blast doors of solid steel for the main doors ( two leaf ), with steel angles and frames of approved quality and thickness. It also includes brass joint, locks and handles, painting with anti-rust, and anti-humidity paint, painting two layers ( water proof ), and all finishing works according to drawings and technical specifications.  Blast-Resistant External Frame size 20cm *10 *5mm*2  - Blast-Resistant Internal Frame size 50mm * 100mm * 3 mm  - A Tube with size 50 mm *50 mm * 3 mm to distribute it each 40 cm horizontal and vertical.  - Steel door full metal plate 8 mm thickness two sides (16 mm)  - Heavy Weight Hinges with Welded Knuckles 45 mm *15cm *8  -Hex Bolt on Concrete Anchor size D 20mm* 20 cm* 6 in each direction  -Plate thickness 6mm under the door  - Flat-Head Concrete Anchor  -Manual lock inside 3 *400mm*30mm *2 in both side.  - mechanical locked (Kale or equivalent )  - peep hole.  - electrical cable .  - Insulator.  - Four hole Plug-in frame each side of the door - 35mm *45 mm and two bars with 25 cm* 25 cm length 5 cm to be weld in the frame of the door  - replace the existing doors if it is necessary.</p>	m2	7
4-7-3	<p><b>Door closer for 8 mm doors :</b>  Supply and install heavy duty automatic door closer that fixed on Armored Door type (union 8825 or equivalent) . And all accessories to finish work as per specifications and manufacturer recommendations.</p>	No.	6
4-7-4	<p><b>Bulletproof Window:</b>  Supply and installation of bulletproof window for guard room (1.3 x 1.15 m)+(1*1.15m). The work includes:  -supply and install of steel frame around glass of size L60*60*6 mm x2 from insides and outside.  - Stainless steel with 14 cm x 1 mm to cover the L section steel.  - Rubber between the glass and L section each 4 cm * 4 mm.  -Fixing the L section in the wall with Hilti with 14 mm Dia and 18cm length.  -supply and install 45mm thick bullet proof glass, including SRF.  All the requirements to finish this item according to drawings, specifications, conditions and directed instructions by the Engineer or his representative.</p>	m2	7
4-7-5	<p><b>Stainless steel box:</b>  Supply and install stainless steel box with drawer size ( 35*80*net 20 cm) under the windows with 2 mm thickness. Item includes window frame, frame, welding, fixing, , drawer have be fixed at the top and bottom with sliding curvature wheels 5 cm Qty.4 running in stainless steel truck, stopper, polishing, sandpapering, and all the requirements to finish this item according to drawings, specifications, conditions and directed instructions by the Engineer or his representative.</p>	NO	3
4-8	<p><b>Cement Solid Block Works :</b>  Supply and build cement solid blocks (40x20x20) cm (Automatic) to close the planting area and parapet on the roof with 20cm height with all required works. Prices of block works shall include supply of automatic solid concrete blocks from v. good and approved factory in perfect dimension and build it in good manner, cement sand mortar (1:3). Works shall include all materials, testing, placing of approval blocks, curing, racking out the joints, workmanship, all ducts, sleeves, plastering , painting by sing anti humidity paint with three layers, tools and anywhere else, needed, all according to drawings, specifications, conditions and directed instructions by the Engineer.</p>	m <sup>2</sup>	11
4-9	<p><b>Civil Work for Bathroom.</b></p>		
4-9-1	<p><b>Earthwork excavation:</b>  Earthwork excavation for the base of bathroom in any kind of soil to the dimensions and levels shown in drawings. Price to include backfilling with excavated soil if suitable or substituting same with selected approved imported soil, and removal of extra and unsuitable soil. Back filling shall be on layers of 200 mm thick with watering and compacting to (95%) of MDD. The item includes Disposing surplus excavated soils outside the site.</p>	m <sup>3</sup>	7.5
4-9-2	<p><b>Termites Repellent :</b>  supply, implement, and paint special material termites repellent consist of ( Ursban herbicide + water) solution, the phase of implementation as following:  at least spraying this solution twice with ratio 1 liter of herbicide per 50 liter pure water this covered 10 m square for under the plain concrete of the floor. Item includes spray this solution, then backfill with 10 cm of soil, adding oil for outside work , backfill, spay second time of the solution, all materials, workmanship &amp; tools, transporting, closing the holes, and all the requirements to finish this item according to as per manufacture instructions and codes of practice, and direct instructions by the Engineer</p>	m <sup>2</sup>	3.1
4-9-3	<p><b>Plain concrete using sulphates resisting cement with thickness 20 cm:</b>  Supply and Cast ready mix Concrete for the plain concrete foundation with size 60 cm width * 20 cm depth with a minimum cement content of 300 Kg per cubic meter. Price include rebar 5Ø10 /m in both directions. Item include all form works, removal of forms, insulation the foundation with polyethylene , cleaning of all exposed tie wires and rods, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer</p>	m <sup>3</sup>	1.1
4-9-4	<p><b>Base Stone Works :</b>  Supply and Build base black "BASILITE" stone above plain concrete foundation up to design level using sulphates resisting cement 1:3in first class with 40 cm thickness. each layer of the stone is 15 cm thickness, the middle filling shall be 60% concrete and 40% stone. Stone material, size, and texturing shall be in accordance with Engineer's instructions and approval. including flexible expansion joint each 6 m, Cutting, shaping and building of stone shall be in straight angles, no twisting, distortion or uneven sizes shall be allowed. The price included any work to finish work as per specifications and workmanship recommendations.</p>	m <sup>2</sup>	7.5

4-9-5	<b>Supply and cast reinforced concrete class(C28) using sulphates resisting cement for ground beam(20x50cm)</b> for the new wall foundation. Including flexible expansion joint each 6 m, cement , formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40) 3ø16 top and 3ø16 bottom, and 1ø 8 @ 200 mm for the stirrup, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. The price include surface leveling, making good the harmed surfaces and edges and all surface finishing as per specifications and workmanship recommendations.	m <sup>3</sup>	0.85
4-9-6	<b>Cement Solid Block Works :</b> Supply and build cement solid blocks (40x20x20) cm (Automatic) for bathroom walls with all required works. Prices of block works shall include supply of automatic solid concrete blocks from v. good and approved factory in perfect dimension and build it in good manner, cement sand mortar (1:3). Works shall include all materials, testing, scaffolds, placing of approval blocks, curing, racking out the joints, workmanship, all ducts, sleeves, opening areas, fiber board, protection concrete(B-200) around sleeve sand pipes (for electrical, sanitary & mechanical), tools and anywhere else, needed, all according to drawings, specifications, conditions and directed instructions by the Engineer. The price includes installing concrete R.C LINTEL with reinforcement above door, Fcu = 25 Mpa, the length shall extend 15cm on both sides.	m <sup>2</sup>	27
4-9-7	<b>Supply and cast reinforced concrete C28 using for solid slab of thickness 15 cm</b> including formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40), size and length as detailed in the drawings, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. Item include Preliminary installations for Electrical, plumbing and floor drainage in concrete slabs, beams, and any concrete elements wherever required. The price include surface leveling, finishing as per specifications and workmanship recommendations.	m <sup>3</sup>	1.5
4-9-8	<b>Supply and make external plastering 20 mm thick for walls</b> using sulphates resisting cement with four faces: the first is the rough nail rendering (mix 1:1) cement: sand, the second is 5mm thick mortar (mix1: 2) cement: sand, the third is the undercoat 13mm (mix 1: 3) cement: sand, the forth is make Finishing Coat, smooth surface with (1:1) cement: sand mortar. and all this is according to specifications, drawings and supervisor engineer's instructions.	m <sup>2</sup>	28
4-9-9	<b>Supply and make internal plastering 12 mm thick for ceiling</b> using with two faces: the first is the rough nail rendering (mix 1:1) cement: sand, second layer 13mm: Base-Coat "Rendering" with (1:3) cement: sand mortar. Works include all materials needed to finish the works according to specifications, drawings and supervisor engineer's instructions.	m <sup>2</sup>	3.1
4-9-10	<b>Supply materials and make anti humidity and water proof emulsion paint for external walls</b> , sanding, priming, putty, under coat, and finishing coats, all according to Drawings, Specifications and instructions of the Engineer. The price should include preparing surface, clean, remove dust.	m <sup>2</sup>	28
4-9-11	<b>Supply and apply two coats of water paints on ceiling.</b> Price shall include surface preparation, and putty.	m <sup>2</sup>	3.1
4-9-12	<b>Plain Concrete under the floor tiles :</b> Supply and Cast ready mix Concrete for the plain concrete under the floor with 10 cm depth with a minimum cement content of 250 Kg per cubic meter. Item include all form works, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer.	m <sup>3</sup>	0.4
4-9-13	<b>Supply and install waterproof of bitumen rolls 5 mm thick</b> in order to insulate the floor of the bathrooms. Item includes all necessary material to complete the works as shown in the drawings and as per manufacturer instructions and codes of practice and specifications and engineer's instructions.	m <sup>2</sup>	3.1
4-9-14	<b>Supply and install non-slipping ceramic floor tiles size 40x40x0.8 cm.</b> The price should include 2.5cm mortar bed and 10cm thick sand bed, cutting& trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.	m <sup>2</sup>	3.1
4-9-15	<b>Supply and fix non-slip color ceramic tiles (Spain-made or equivalent )</b> , size 40x25x0.60cm for the walls of the bathroom. The tiles shall be laid and fixed to the walls by approved grouting and adhesive materials. The price includes, Grouting, preparing the surface to fixed tiles and final polishing as per specifications, drawings and supervisor engineer's instructions or his representative. The color of the tiles shall be as chosen by the Engineer	m <sup>2</sup>	26.2
4-9-16	<b>Supply and install Aluminum window for the bathroom with 70*80 cm *1.5mm special section.</b> Item includes silicon sealant, supplying, workmanship, rubber, fixation, hinges, double glass 6mm, SRF, handles, anchored by galvanized steel bolts (Hilti-rated), 12mm Dia. And 120 mm length into concrete wall each 30 cm . All necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	NO.	1
4-9-17	<b>Aluminum door:</b> Supply and install Aluminum doors section 55 with width 0.80 m and 2.10 m height with 1.5mm special section . Item includes door frame, fixing in the walls each 15 cm, silicon sealant, supplying, workmanship, rubber, fixation, three hinges, locked, handles. All necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	No	1
4-10	<b>Plumping Work</b>		
4-10-1	<b>Supply and install Polyethylene pipes (0.75") for water lines</b> in order to connect the water to bathroom from the main tank on the roof, and connect each equipment inside the bathroom. Item includes main valves for the bathroom, angle valves, fittings, pipe nipples, nuts, unions, brass fitting adapters as per specifications, drawings and supervisor engineer instructions.	L.M.	13.2
4-10-2	<b>Supply and install Rain Drainage pipes with 4-inch white UPVC</b> from the roof to the ground with all required fitting. Item includes making openings in the parapet, backfilling, connections, and all the necessary work to finish this item according to the technical specifications, drawings, and instruction of supervisor engineer or his representative	L.M.	9
4-10-3	<b>Supply and fix floor trap</b> (100mm diameter, 2.5mm thickness for the bathroom) complete with concrete protection and heavy-duty brass grating. Item includes drainage piping from/to the source/manholes with 4 in , all civil works, and all the necessary work to finish this item according to the technical specifications, drawings, and instruction of supervisor engineer or his representative.	NO	1
4-10-4	<b>Supply and fix squatting pan complete</b> with plastic double action flushing cistern, 4" dia PVC drainage pipe to the manhole , connecting water supply pipes and all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	NO	1
4-10-5	<b>Supply and fix hand wash basin</b> , Complete with waste fittings, plug, water mixer soap holder, and 2" drainage pipe to floor trap, necessary water connection, all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	NO	1
4-10-6	<b>Providing and fixing stainless toilet paper holder</b> fixed in position by means of C.P. screws and rawl plugs embedded in the walls complete including cutting and making good the walls wherever required.	NO	1
4-10-7	<b>Supply and fix shower mixer with sprayer</b> , hose, stand, glazed fire-clay soap holder, including all needed fittings, and all requirements to complete this item according to drawings, specifications, and engineer's instructions.	NO	1
4-10-8	<b>Supply and install Mirror wall</b> paneling above the wash basin with 1/4 " thickness with size 60 * 60 cm. high quality 1/4" polished float glass mirror, framed in a one-piece, bright polished, stainless steel channel frame with 90° mitered corners, mirror shelf, the contractor should submit a sample before implemented the work and all the requirements to finish this item according to drawings, specifications, and engineer's instructions.	NO	1
4-10-9	<b>Supply and fix Stainless Steel hand-held sprayer head.</b> Item includes 7/8" T-Valve adapter, 4ft flexible reinforced stainless steel hose, metal hook angle valves, connecting water supply pipes and requirements to finish this item according to drawings, specifications, and engineer's instructions.	NO	1
4-10-10	<b>Supply and install plastic water tanks</b> with 1500L capacity, 3 layers, made of polyethylene. Item includes electrical float, connect water supply pipes from the main tank with Polyethylene pipes .75 in around 46 m the actual dimension , electrical connection, tanks base, valves and any other related accessories. Price includes all requirements to complete the work according to technical specifications and drawings.	NO	1

4-10-11	<b>Supply installation and commissioning of a pump</b> for the water tank with capacity 1.5 horse. Item includes floating in the main tank, pipe connection from the main tank to this pump , connecting the pump with the electricity, waterproof switch, excavation, cable with 2.50 mm x 4, conduit, fittings, pipe nipples, pipe nuts, and all the requirement to finish this item according to specifications, drawings, and supervisor engineer instructions.	NO	1
4-10-12	<b>Suction Fan:</b> Providing and fixing suction fan with 20 cm dia item includes cable with 2* 1.5 mm to connect to SDB,PVC conduit, trunky, socket, switch and all the requirement to finish this item according to technical specification and instruction of supervisor engineer.	NO	1
<b>4-11</b>	<b>ELECTRICAL WORKS</b>		
4-11-1	<b>Security and Access Control Room SDB 1φ 64 A</b> Supply, install, test and commission secondary distribution boards (Schneider, Hager or equivalent), complete with circuit breaker on incoming supply connection. The distribution boards shall be of metal-clad pattern complete with all circuit breakers, casing, busbar, protection equipment having sufficient connections for all circuit breakers, Fire resistance door for the panel, all in according with requirements of the specifications, drawings and codes of practice:	Note	
4-11-1-1	Indoor Sub-distribution board (SDB), 16 way outs	NO.	1
4-11-1-2	SDB 1φ 64Amp 2P , 230volt 1φ. ( Hager or equivalent)	NO.	1
	Class B 32Amp,1P, 230 volt ,1φ. ( Hager or equivalent)	NO.	1
4-11-1-3	Class B 16Amp,1P, 230 volt ,1φ. ( Hager or equivalent)	NO.	2
4-11-1-4	Class B 10Amp,1P, 230 volt ,1φ. ( Hager or equivalent)	NO.	6
4-11-1-5	Class B 10Amp,1P, 230 volt ,1φ. spare ( Hager or equivalent)	NO.	1
4-11-1-6	Class B 6Amp,1P, 230 volt ,1φ. ( Hager or equivalent)	NO.	3
4-11-1-7	Class B 4Amp,1P, 230 volt ,1φ. (Hager or equivalent)	NO.	1
4-11-1-7	<b>SOCKETS AND POWER CONNECTIONS</b>		
4-11-2	Supply, install, test and commission a complete socket outlet point or power point with 3x2.5sq. mm and 2x4+1x2.5 sq.mm PVC insulated multistring copper conductor cable (Saudi cable or equivalent) in recessed 25mm dia PVC pipe, including all conductors, cables, conduits, boxes. Socket outlets and all connections between the appropriate distribution boards and the socket outlet or power connection point for the following:		
4-11-2-1	2P+E SINGLE SOCKET (13A-220V)	NO	11
4-11-2-2	2P+E SINGLE SOCKET (13A-220V) water proof	NO	1
	<b>A-LIGHTING FIXTURES:</b>		
4-11-3	Supply install, test and commission complete LED lighting. Color temperatures (CCT) shall be at least 5000 K (White LED), lamp Luminous Flux shall be at least 1500 lum, input voltage 240V, Lamp Luminous Efficiency (lm/w) shall be at least 90%. IP20, Operation Temperature shall be 20°C to 50°C. Working Lifetime shall be at least 20000 h. Warranty shall be 2 Years, and be certified from CE, RoHS, SASO, UL. Temperature rise not greater than 20 degrees centigrade. The lighting fixtures shall be with 3x1.5+1X1.5 sq. mm PVC insulated multistring copper conductor cable (Saudi cable or equivalent) in recessed 25mm dia PVC pipe, including all connections, suspension, clamps, switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications for the following:		
4-11-3-1	Supply, install, connect and test LED tube lighting fixing on the wall fixture with 2x 18W lamp,	NO	5
4-11-3-2	Supply, install, connect and test LED tube lighting fixing on the wall fixture with 1x 18W lamp,	NO	4
4-11-3-2	Supply, install, connect and test W.P ceiling mounted lighting fixture with 18W lamp ( water proof)	NO	1
4-11-3-3	Supply, install, connect and test over the mirror LED with 5 W lamp,	NO	1
4-11-4	<b>Ceiling Fan :</b> Installation, testing and commissioning of ceiling fan ( USHA Pakistan or equivalent ) with 70watt capacity. including wiring the down rods 45 cm, RLS PVC insulated, PVC conduit, copper conductor, trankey, cable with 2.5 mm+1.5 mm to connect to the SDB, including providing and fixing phenolic laminated sheet cover on the fan box , switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications and instructions of the supervising engineer.	No.	3
4-11-5	<b>Wall Fan :</b> Installation, testing and commissioning of wall fan ( USHA Pakistan or equivalent ) with 70watt capacity. including RLS PVC insulated, PVC conduit, copper conductor, trankey, cable with 2.5 mm+1.5 mm to connect to the SDB, switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications and instructions of the supervising engineer.	No.	2
	<b>AC 1.5 ton:</b> Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 1.5 Ton, item includes cable with 2C X 4 mm+1*2.5 Saudi from the SDB to each unit, switch with 16 A, PVC pipes, fittings, trankey (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level with , water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.	No.	1
4-11-5	<b>AC 1 ton:</b> Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 1 Ton, item includes cable with 2C X 2.5 mm +2.5mm Saudi from the SDB to each unit, switch with 13 A, PVC pipes, fittings, trankey (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level with , water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.	No.	2
4-11-6	Supply, install, test and commission 3C x 16 mm 600/1000v.XLPE/PVC/CU/, multi-core copper cables (Saudi cable or equivalent) from the MDB to the SDB of the room and perimeter lighting including all necessary cleats, supports, brackets, glands, cable terminals, underground cable trenches excavation and backfilling, pipes, Boxes, manholes ...etc. All of which shall be according to the specifications, drawings. Codes of practice and highest prevailing engineering standards, for the following:	m.l	40
4-11-7	<b>Control Panel for the locked: exist and enter</b> Supply, install, test and commissioning of Control Panel and shall have the following system: The system must support air locking (i.e. second door must not open until first door is closed) Readers must be compatible with visible indication of access allowed / declined. The system must normally work as an 'Online' system where all readers and controllers are connected to a network Visitor management System: The system must be capable of recording the following events: Access allowed, Access denied, Unauthorized exit, Forced entry attempt, Door propped open, Equipment fault The system must support multiple failure modes (fail open, fail locked) The system must integrate with the Fire Alarm system (to open in event of an incident) Offer a perfect solution for time attendance and access control. stainless steel request to exit switches placed at the security guard rooms Door opining methods: card plus secret code opening (CARD + Fingerprint / FINGER PRINT+ PIN) Request to stainless steel exit button NO 2 electrical locked Qty. 2 for the doors item includes switch, wire to connect each door with this panel, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	NO	2
<b>5</b>	<b>Emergency Staircase</b>		

5-1	<b>Excavation works :</b> Excavation works for foundation of the columns, any type of soil (soft, rigid, and semi-rock) . This item includes backfill, electricity network if existed, dismantling the tiles, lifting of all waste outside the site, watering, compaction to obtain hard ground against subsidence, the compaction should not be less than 98% of MDD, and all necessary works to prepare the ground for foundations according to drawings , technical specifications and instruction of supervisor engineer.	m <sup>3</sup>	4.4
5-2	<b>Plain concrete:</b> Supply and Cast ready mix plain Concrete under the foundation Class 'f'c= 25 mpa' with 20 cm thickness. using sulphates resisting cement with minimum content of 250 Kg. per cubic meter. Price include all form works, removal of forms, insulation the footings ,cleaning of all exposed tie wires and rods, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	m <sup>3</sup>	1
5-3	NOTE: All form works and shuttering shall be new. Concrete items must include steel reinforcement with Fy 280 Grade 40, using sulphates resisting cement, Supplying, Casting, vibrating, workmanship, sleeves, insulation for exposing surfaces of underground reinforced concrete elements with two coats of hot bituminous, testing and providing test results certificates, storing and saving of samples, and curing concrete with 'f'c=30 Mpa, smooth face. All works must be in accordance with specifications, drawings and supervisor engineer instructions.	Note	
5-3-1	Supply, prepare and cast ready mix reinforced concrete for the foundation as per in drawing	m <sup>3</sup>	1
5-3-2	Supply, prepare and cast ready mix reinforced concrete for ground beam	m <sup>3</sup>	0.3
5-4	<b>Supply and install emergency staircase with it steel handrails to connect from the ground floor to the first story with 2 flight ; the first flight stair [0.9m (width),3.55m (span)x 1.8m(height)], the second flight stair [0.9m (width),4.75m (span)x 1.65m(height)]extend to reach the level of first floor slab. actual dimensions must be taken from site before executing, the item includes:</b>		
5-4-1	Supply and install IPE 160-section with 16 x 8 cm x 6mm for the columns with 6m length. Item includes base plate with 30 cm * 30 cm with 10 mm thickness , anchor bolt 4 x D 20 mm and 50 cm length inside the concrete base, stiffener with tube section 200 mm x 50 mm, all steel parts must be coated by two layers of anti-rust coating , cutting , lifting , grouting , fixing in the wall , water proof painting , welding electrode and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer.	NO	2
5-4-2	Supply and install IPE 160-section with 16 x 8 cm x 6mm for the beams with 6m length. Item includes cutting if it necessary, grouting , painting , stiffeners with tube section 200 mm x 50 mm, welding electrode, connection, inside the concrete and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer.	NO	2
5-4-3	Supply and install steel stairs consist of incline part called flight and horizontal part called landing, the tow flights consist of many steps each step has 18cm open riser and 30 cm double steel plate tread ,(the top plate 2 mm granular plate ,the bottom plate 2 mm Smooth plate and its reinforced between the two plates using 2 tube section 6 cm x 3cm x 1.5 mm distributed each 30 cm longitudinally) ,the landing consist of double steel plate (the top plate 2 mm granular plate ,the bottom plate 2 mm Smooth plate and its reinforced between the two plates using tube section 4 * 8 *1.5 mm distributed each 40 cm in width, in addition to the bottom reinforcement using tube section 4 * 8 *1.5 mm distributed each 25 cm longitudinally) at each landing, the side edges of the stairs (Soffit) consist of 2 tube section 5 * 10 *3 mm item includes 2 base plate with 40 cm * 20 cm with 10 mm thickness , anchor bolt 4 x D 15 mm and 15 cm length inside the concrete ground beam , all steel parts must be coated by two layers of anti-rust coating cutting , lifting , water proof painting ,welding electrode and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer.	L.m	10.2
5-4-4	Supply and install steel handrails consist of tube cylindrical section 2 inch diameter connected at turning points using cylindrical knee 2 inch diameter, which reinforced using (Newel) tube cylindrical section 2 inch distributed each 0.9m, 3 horizontal reinforcement using tube cylindrical section 1.25 inch distributed each 17cm connected at turning points using cylindrical knee 1.25 inch diameter, all steel parts must be coated by two layers of anti-rust coating , cutting , fixing in the wall , lifting , water proof painting ,welding electrode and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer.	L.m	16
<b>6</b>	<b>Installation of new bathroom in the safe room</b>		
6-1	<b>Earthwork excavation:</b> Earthwork excavation for wall foundations in any kind of soil to the dimensions and levels shown in drawings. Item include scrapping off sidewalk, curb stone, cut concrete layer. Price to include backfilling with excavated soil if suitable or substituting same with selected approved imported soil, and removal of extra and unsuitable soil. Back filling shall be on layers of 200 mm thick with watering and compacting to (95%) of MDD. The item includes Disposing surplus excavated soils outside the site.	m <sup>3</sup>	1
6-2	<b>Plain concrete using sulphates resisting cement:</b> Supply and Cast ready mix Concrete for the plain concrete foundation with size 40 cm width * 20 cm depth with a minimum cement content of 300 Kg per cubic meter. Price include all form works, removal of forms, insulation the foundation with polyethylene , cleaning of all exposed tie wires and rods, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	m <sup>3</sup>	0.4
6-3	<b>Supply and cast reinforced concrete class(C28) using sulphates resisting cement for ground beam(20x40cm)</b> for the new wall foundation. Including cement , formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40) 3ø 16 top and 3ø 16 bottom, and 1ø 8 @ 200 mm for the stirrup, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. The price include surface leveling, making good the harmed surfaces and edges and all surface finishing as per specifications and workmanship recommendations. Making holes in the exiting wall from both sides, imbedded the bars in this holes, grouting, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m <sup>3</sup>	0.4
6-4	<b>Solid Block Works:</b> supply and install block building using solid blocks (size 20x20x40) for wall. Item includes lintel with 15 cm thickness; the length shall extend at least 20cm on both sides, block should be done using a cement mortar 1:3 cement-sand. The building should be balanced and interlinked. Price includes all associated works such as watering, materials, placing of approval blocks, workmanship, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m <sup>2</sup>	24
6-5	<b>Supply and make internal plastering 12 mm thick for walls</b> using with two faces: the first is the rough nail rendering (mix 1:1) cement: sand second layer 13mm: Base-Coat "Rendering" with (1:3) cement: sand mortar. Works include all materials needed to finish the works according to specifications, drawings and supervisor engineer's instructions.	m <sup>2</sup>	24
6-6	<b>Supply and apply two coats of oil paints on internal walls.</b> Price shall include surface preparation, priming, and putty. All according to Drawings, Specifications and instructions of the Engineer.	m <sup>2</sup>	24
6-7	<b>Demolition Work:</b> Demolish work for the floor tile. Item include canceling all the electrical wire and sockets and moving the electrical switches to be far away, removing all remaining obstacles such as soil, concrete, stones, .... etc. (Site visit necessary) to prepare the site to start the construction of the project. all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, and all the necessary work to finish this item as per specifications and directed by the engineer.	lump.	1
6-8	<b>Floor Trap:</b> Supply and fix floor trap (100mm diameter, 2.5mm thickness for the bathroom) complete with concrete protection and heavy-duty brass grating. Item includes drainage piping to main pipe, T connection, fitting , make an opening in the external wall, closing this opening with plaster, all civil works, and all the necessary work to finish this item according to the technical specifications, drawings, and instruction of supervisor engineer or his representative.	No.	1

6-9	<b>Sewerage UPVC Pipes with 4 in Dia ( main pipe)</b> Supply, install, testing and commissioning of the UPVC (5.5mm Thickness) 4 inch waste water drainage including, pipe fittings, connection to drainage manhole required sleeves and all necessary accessories as per drawings, specifications and related E96:F98codes.	L.m.	10
6-10	<b>Western Toilet:</b> Supply and install a western toilet( Italian or equivalent first type ). Item includes mounted floor, white color, Porcelain, siphon jet water closet/toilet with an elongated bowl, seat with open front and checks hinges, and all necessary accessories such as a capacity cistern, valves, fittings, 13mm stop angle valves, chrome plated 13mm hose, heavy duty, connecting water supply pipes and sewerage networks and make an opening in the external wall, all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	1
6-11	<b>Stainless Steel hand-held sprayer head:</b> Supply and fix Stainless Steel hand-held sprayer head. Item includes 7/8" T-Valve adapter, 4ft flexible reinforced stainless steel hose, metal hook angle valves, connecting water supply pipes and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	1
6-12	<b>Water Tap:</b> supply and install water tap in the bathroom. Item includes connecting to the water system, pipe nipples, nuts according to technical specifications, drawings and instructions of supervisor engineer	No.	1
6-13	<b>Hand Wash Basin:</b> Supply and fix hand wash basin( Italian or equivalent first type ) Complete with, waste fittings, plug, water mixer (hot and cold), soap holder, and 2" drainage pipe to floor trap, necessary water connection, all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	1
6-14	<b>Suction Fan:</b> Providing and fixing suction fan with 20 cm dia item includes cable with 2* 1.5 mm to connect to SDB,PVC conduit, trunky, socket, switch and all the requirement to finish this item according to technical specification and instruction of supervisor engineer.	No.	1
6-15	<b>Stainless Toilet Paper Holder:</b> Providing and fixing stainless toilet paper holder fixed in position by means of C.P. screws and rawl plugs embedded in the walls complete including cutting and making good the walls wherever required.	No.	1
6-16	<b>Mirror:</b> Supply and install Mirror wall paneling above the wash basin with 1/4 " thickness. It consists of thick beveled mirror with 3" etching on all four sides of the mirror, shelf . Edges to be polished & mirror to be fixed in the wall on SS mirror screws, the contractor should submit a sample before implemented the work and all the requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	1
6-17	<b>Shower:</b> Supply and install shower in the bathroom with all accessories: (shower ,mixers) items includes hose, stand, glazed fire clay soap holder, all needed fittings, pipes, and connections to water and all the required works such as connecting water supply pipes , sewerage pipe , all the required works to finish this item according to technical specifications and instructions of supervisor engineer.	No.	1
6-18	<b>Water Supply Pipes</b> Supply and install Polyethylene pipes (hot and cold) (0.75") for water lines in order to connect the water to bathroom from the main tank on the roof, and connect mixer inside the bathroom . Item includes main valves, angle valves, cutting the walls, plastering, and repainting, make an opening in the external wall, fixing on the wall, fittings, pipe nipples, nuts, unions, brass fitting adapters as per specifications, drawings and supervisor engineer instructions.	L.m.	20
6-19	<b>Supply and install non-slipping ceramic floor tiles size 40x40x0.8 cm.</b> The price should include 2.5 cm mortar bed and 5 cm thick sand bed, cutting& trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.	m2	4
6-20	<b>Supply and fix non-slip color ceramic tiles (Spain-made or equivalent ), size 40x25x0.60cm for the walls</b> of the bathroom. The tiles shall be laid and fixed to the walls by approved grouting and adhesive materials. The price includes, Grouting, preparing the surface to fixed tiles and final polishing as per specifications, drawings and supervisor engineer's instructions or his representative. The color of the tiles shall be as chosen by the Engineer	m2	30
6-21	<b>Insulation :</b> Supply and install waterproof of bitumen rolls 5 mm thick in order to insulate the floor of the bathroom. Item includes all necessary material to complete the works as shown in the drawings and as per manufacturer instructions and codes of practice and specifications and engineer's instructions.	m2	4
6-22	<b>water heater</b> Supply and install electrical water heater of capacity 50 liter with automatic thermostat. Item includes all necessary valves, electrical connections, cables and all other fittings, wiring, and accessories as per drawings and specifications and engineer's instructions.	No.	1
<b>7</b>	<b>IP Surveillance System- Items for the Site, Villa and Pedestrian access</b>		
7-1	<b>RAISED ACCESS FLOOR</b> Supply and install RAISED ACCESS FLOOR for Server Room with size ( ( L)4,00 m x (D)2.50) in safe room in first Floor. Freestanding raised access floor to finish 40 CM above the concrete slab in accordance with the standard . The server Room raise floor must allocate space for the additional 0.30 to 0.50 meter below the floor as well as space for the ramp to move equipment from outside to inside of the data center. Technical Specifications: The panel size 60x60*5cm Fire resistant Freestanding raised access floor to finish 40 CM above the concrete slab in accordance with the specification Straight cutting and fitting around perimeter walling etc., including all necessary additional supporting members, pedestals, etc. Raking, cutting and fitting around perimeter walling etc., including all necessary additional supporting members, pedestals etc. Bracing of raised access floor where no vertical butting face exists, including supply and fixing of finishing angle. wooden plate with 18 mm thickness to be fixed surrounded the room, bolt to fix the plate, and cancelling the water floor trap, removing the sink with its mixer, and all the works to finish this item according to the specification, and instruction of the supervisor engineer.(actual dimensions should be taken from site)	m2	13
7-2	<b>Installation, Power &amp; Data Cabling, Cabinets in the server room</b> Server Floor Standing Cabinet 800*1000 42U Technical Specification: •Dimensions: 42U 2020mm (Height) x 800mm (Width) x 1000mm (Depth) 2020mm high server rack, 800mm wide x 1000mm deep. •Glass Front Door, and mesh rear door, Fans , Vertical cable trays, 2 PDUs , 3 Shelves •This server rack has a maximum internal usable depth of 916mm. Compatible with HP, DELL, IBM, SUN Microsystems, FUJITSU, INTEL and SUPERMICRO Servers. and cisco switches. • Mounting, Installation, of all Cameras, • UTP Cables Cat 6A/STP • Earthing Unit for Cabinet 100% Copper. • Pipes, trunks, electrical cable, and all accessories for (above Cameras as layout)	NO	1
<b>8</b>	<b>Public Address(Audio System) villa1 and pedestrian access</b>		

8-1	<p><b>Full IP based Public Address Audio System (PA):</b> Supply and install Full IP based Public Address Audio System (PA) which supports up to 1200 zones</p> <ul style="list-style-type: none"> <li>•Supports up to 1200 Zones</li> <li>•Software Server</li> <li>•Software Encoder</li> <li>•Software Media player</li> <li>•Status monitor</li> <li>•Weekly program timer</li> </ul> <p>IP Based Network Microphone with Touch Screen</p> <ul style="list-style-type: none"> <li>•Specific zone Paging</li> <li>•Paging for all zones</li> <li>•Paging for group of zones</li> <li>• Supports settings for priority</li> <li>•Each unit supports up to 120 individual zones</li> <li>• PA system can accept up to 120 IP Microphone units</li> <li>•Works over existing LAN network.</li> </ul> <p>item includes (Cables, cables to connect to the server room,Trunkkeys, Pipes, Clamps &amp; Connectors...etc.)</p> <ul style="list-style-type: none"> <li>•On-Site Training for 2 Users, making guideline to use this system</li> </ul>	NO	1
8-2	<p><b>Full IP Network Amplifiers</b></p> <ul style="list-style-type: none"> <li>•Connects to the IP Public Address System via LAN IP Network</li> <li>•Rated power of 1000W for high power use public address system.</li> <li>•Rack mount PA system 100 Volt power amplifier in 3U type</li> <li>•70V, 100V and 4-16 ohm speaker outputs</li> <li>•Input :10k ohms(<math>\Omega</math>) &lt; 1V , unbalanced phone jack and balanced XLR Input</li> <li>•Output 10k ohms(<math>\Omega</math>) 0.775V (0 dB) , Unbalanced phone jack and balanced XLR Input</li> <li>•220V AC Power Supply</li> <li>•with Battery Charger and 24V Power Supply, two 15A outputs and one 15A-200A output,</li> </ul> <p>item includes (Cables, cables to connect to the server room, Trunkkeys, Pipes, Clamps &amp; Connectors...etc.)</p> <ul style="list-style-type: none"> <li>•On-Site Training for 2 Users</li> </ul>	NO	1
8-3	<p><b>Indoor Speakers in each room.</b></p> <p>Two Way Wall Mount Speaker, 20W, ABS, white, 100V 12</p> <p>item includes (Cables, cables to connect to the server room ,Trunkkeys, Pipes, Clamps &amp; Connectors...etc.) , and all the works to finish this item according to the specification, and instruction of the supervisor engineer.</p>	No.	35
8-4	<p><b>Outdoor Speakers</b></p> <p>Outdoor IP Speaker 30W, built-in decoder &amp; amplifier &amp; speaker, aluminum body with mounting bracket, IP66, AC220V power supply.</p> <p>item includes (Cables, cables to connect to the server room ,Trunkkeys, Pipes, Clamps &amp; Connectors...etc.) , and all the works to finish this item according to the specification, and instruction of the supervisor engineer.</p>	No.	3
9	<b>Fire Alarm System for Villa1 and pedestrian access</b>		
9-1	<p><b>Addressable Fire alarm Panel</b></p> <p>Supply and install Fully featured single loop addressable fire alarm panel</p> <p>The panel should be housed in an attractive, flame retardant ABS enclosure, utilizing a switch mode power supply and has a fully removable front cover which improves ease of access for cable installations. Up to 16 panels should be networked with no additional network cards</p> <ul style="list-style-type: none"> <li>•Loop Capacity up to 250 devices.</li> <li>•Color touch screen display</li> <li>•Remote monitoring via a desktop PC or smartphone via the cloud</li> <li>•Easy to use configuration software</li> <li>•Full cause &amp; effect programming via front panel or PC</li> <li>•Built-in TCP-IP output</li> <li>•Meets all requirements of latest EN54 parts 2 &amp; 4</li> <li>•Extensive Day/Night mode programming</li> <li>•Built-in network facility</li> <li>•2 programmable local inputs</li> <li>•2 sounder circuits</li> <li>•Fire &amp; fault relays</li> <li>• Training of 1 administrator, and 2 operators of this System, making guideline to use this system</li> </ul>	NO	1
9-2	<p><b>Addressable Smoke and Heat Detector</b></p> <p>Supply and install Optical Smoke and Heat Detector in the same sensor(Addressable) including all required fire resistant cable Smoke and Heat with additional Specs as following :</p> <ul style="list-style-type: none"> <li>•The detector is to detect optically dense smoke and Heat , involving materials such as soft furnishings, PVC, plastic, foam and all similar materials</li> <li>• Small Sensor is preferred for visible particles approx. (0.5 to 10<math>\mu</math>m)</li> <li>"•Color touch screen display</li> <li>•Remote monitoring via a desktop PC or smartphone via the cloud</li> <li>•Should be meet EN54 parts 5, 7 &amp; 17 requirements.</li> <li>• Remote LED output</li> <li>• 8 LEDs for improved, 360° visibility</li> <li>• Addressed with dip switches</li> <li>• The detector should be supported for both (Heat and Smoke) detection .</li> <li>• Compatible with Panel and supporting its Features.</li> <li>• Sensor should be with Base .</li> <li>• Built in Isolator</li> <li>• Operating Temperature -10°C to +50°C and Minimum Continuous Temp. 0°C</li> <li>• Coverage 100m<sup>2</sup></li> <li>• IP Rating IP43</li> </ul> <p>Item includes (fire resistant cables, fire resistant cables to connect to the server room , Trunkkeys, Pipes, all accessories for (above devices as layout)...etc.) , and all the works to finish this item according to the specification, and instruction of the supervisor engineer.</p>	NO	38

9-3	<p><b>Addressable Sounder with Flasher</b> Supply and install Addressable Sounder with Flasher with additional Specs. as following :</p> <ul style="list-style-type: none"> <li>•Sounder and Flasher in one device</li> <li>•Should be red colored</li> <li>• pattern of Flasher W 3.0 - 8.9 and the sounder has 17 selective tones minimally</li> <li>•Complies with EN54 Pt 3 Type A &amp; EN54 Pt 23</li> <li>•Housed in UL V0 flame retardant ABS</li> <li>•Flashing Rate 0.5Hz</li> <li>•IP Rating IP 21 C</li> <li>•Coverage should 3m (D) x 8m(L) x 8m(H) minimum.</li> </ul> <p>Item includes (fire resistant cables, fire resistant cables to connect to the server room , Trunkeys, Pipes, all accessories for (above devices as layout)...etc.) , and all the works to finish this item according to the specification, and instruction of the supervisor engineer.</p>	NO	8
9-4	<p><b>Indoor Call Point (Addressable )</b> Supply and install Indoor Call Point as following :</p> <ul style="list-style-type: none"> <li>•Should be red colored</li> <li>•Visible warning flag confirms activation</li> <li>•Complies with EN54-11 .</li> <li>•Simple key to reset operating element (no broken glass)</li> <li>•IP Rating IP32</li> </ul> <p>Item includes (fire resistant cables, fire resistant cables to connect to the server room , Trunkeys, Pipes, all accessories for (above devices as layout)...etc.) , and all the works to finish this item according to the specification, and instruction of the supervisor engineer.</p>	No	12
9-5	<p><b>CO2 Fire extinguisher 6kg</b> • Supply and Install CO2 Fire extinguisher 6kg Extinguisher manufacturing according to BS EN 3 Parts 7 to 9 and SS EN3 &amp;UL listed.</p>	NO	6
9-6	<p><b>CO2 Fire extinguisher 10 kg for the generator</b> • Supply and Install CO2 Fire extinguisher 10kg Extinguisher manufacturing according to BS EN 3 Parts 7 to 9 and SS EN3 &amp;UL listed.</p>	NO	1
9-7	<p><b>Fire extinguisher (Foam 25 liter ) for the generator</b> Supply and Install Foam Fire extinguisher 10 liter Extinguisher manufacturing according to BS EN 3 Parts 7 to 9 and SS EN3 &amp;UL listed.</p>	NO	1
9-8	<p><b>Fire extinguisher (wet Chemical 6 liter )</b> Supply and Install wet Chemical Fire extinguisher 6 liter (type K) Extinguisher manufacturing according to BS EN 3 Parts 7 to 9 and SS EN3 &amp;UL listed.</p>	NO	2
9-9	<p><b>CO2 Fire extinguisher 6kg dry chemical</b> • Supply and Install dry chemical Fire extinguisher 6kg Extinguisher manufacturing according to BS EN 3 Parts 7 to 9 and SS EN3 &amp;UL listed.</p>	NO	2
9-10	<p><b>Sirens</b> A sound alarm system comprised of sirens must be installed throughout the building and connected to the access control room in first floor. The system must be audible from each office and be able to emit at least two kinds of alarms – fire and attack, item includes wire, box, push button at least four one of them in server room, and one in the safe room, two in the security guard room, trunkey, pipe, and all the works to finish this item according to the specification, and instruction of the supervisor engineer.</p>	NO	3
10	<b>Access Control</b>		
10-1	Supply, install, test and commission security and access control system including all necessary cables and accessories ducts, pipes, Boxes, turnkeys, program and network, Aluminum cover, switch, wire, connecting this fingerprint to inverter inside server room, connecting to the panel of the security system ...etc. All of which shall be according to the specifications, drawings. Codes of practice and highest prevailing engineering standards, for the following	Note	
10-1-1	BIO METRIC READER, IP based device, fingerprint and smart card reader integrated, at least 8MB memory, at least 5000 templates capacity, IP 65,	NO.	4
10-1-2	Electrical Lock	NO.	8
10-1-3	Electrical Lock and door contact with interlock controller for the safe room, pedestrian access and server room	NO.	3
10-1-4	Request to stainless steel exit button	NO.	8
10-1-5	Power Adapter 5A	NO.	3
10-2	<p><b>X-Ray Luggage Scanner</b> • Supply and Install X-Ray Luggage Scanner X-Ray Machine (Standard Unit) which includes:</p> <ul style="list-style-type: none"> <li>• Chanel 65.1x 45.4 cm</li> <li>• 6 Color Imaging</li> <li>• 9 Quadrant Zoom</li> <li>• Atomic Z-Number Measurement</li> <li>• Auto Image Archiving (150,000)</li> </ul> <p>Baggage Counter</p> <ul style="list-style-type: none"> <li>• Display Type: Dual 19" LCD Color Monitors</li> <li>• Display Resolution: 1280 x 1024; 24 bit/pixel Color</li> <li>• 1 x X-Ray Generator 160KV Unit</li> <li>• 1 x Displayer 24" LCD Square Set</li> <li>• 1 x IPC Industrial Personal Computer Set</li> <li>• 1 x Detecting System unit</li> <li>• 1 x Image Processing System Unit for High-speed data acquisition and transmission</li> <li>• 1 x Operation Desk (Separated)</li> <li>• 1 x Control System unit</li> <li>• 1 x Conveying System unit</li> <li>• 1 x Exit/entrance rollout unit</li> <li>• TIP Software (Threat Image Projection)</li> <li>• 1 x Displayer Set</li> <li>• 1 x Power Stabilizer Set</li> <li>• 1 x UPS Unit</li> <li>• 1 x VMS</li> <li>• 1 x Energy Saving Light Barrier</li> <li>• Computer with Processor: Intel® Core i5, 3.1 GHz, 6MB cache; Memory : 2 GB RAM at 1333 MHz; storage :500 GB HDD; Video Card: 1 GB Video Card, Dual Digital Display</li> </ul>	NO	1

10-3	<p><b>Walk-Through Metal Detector</b></p> <ul style="list-style-type: none"> <li>Supply and Install Walk-Through Metal Detector</li> </ul> <p>Walk-Through Metal Detector (Standard Unit)</p> <p>Functions</p> <ul style="list-style-type: none"> <li>Display panel: Big LCD panel, both Chinese and English available</li> <li>Detection area: 8 detection boards equally distributed in both sides, super-bright LED lights</li> <li>Recognition function: Size of the detected metal can be recognized</li> <li>Self-diagnosis: Automatically start up and self-diagnose when power is on, any breakdown will be displayed on the screen</li> <li>One key restore</li> <li>Remote control: Equipped with dedicated remote-control unit, easy for function adjustment and start up/down</li> <li>Alarm: Sound and light alarm simultaneously, 1-25s, adjustable 255 volume level and 11 tone levels</li> <li>Detection zone: Adjustable single or multi- zones' alarm (6 zones in factory)</li> </ul> <p>Vibration protection</p> <ul style="list-style-type: none"> <li>Anti-interference ability: Advanced interactive emission and absorption technology, 8 adjustable working frequencies, well prevented from the mutual interference for the closed ones</li> <li>Passing speed: Detection speed can be self-defined; The highest is 100-person/min.</li> <li>Counting function: Intelligent passenger and alarm counting, up to 20000 counting times, automatically storage</li> <li>Management encryption: Prevent from illegally data modification, or mis-operation</li> <li>Safety: No harm to pacemaker, deaf-aid, pregnant woman, CD, etc.</li> <li>Calendar: Year, month, day, hour and minute</li> <li>Water-proof design: High quality waterproof synthetic fiber materials are used, precision processing technic</li> <li>Networking: Can be connected to computer, remote parameter setting/searching available (optional)</li> <li>Backup power supply: 2-8 hours power supply (optional)"</li> </ul> <p>Item includes lifting to its position, storing, all cable connection, and all the works to finish this item according to the specification, and instruction of the supervisor engineer.</p>	NO	1
10-4	<p><b>Hand Held</b></p> <ul style="list-style-type: none"> <li>Supply Garrett Super Scanner V Compact Ultra Sensitive Handheld Metal Detector Wand</li> </ul>	NO	3
10-5	<p><b>Under Vehicle Search Mirror</b></p> <ul style="list-style-type: none"> <li>Supply Under Vehicle Search Mirror (8in Convex) extends to 80</li> </ul>	NO	1
10-6	<p><b>Inverter with Batteries:</b></p> <p>Inverter with Batteries for all security systems</p> <ul style="list-style-type: none"> <li>Supply and Install Inverter</li> </ul> <p>6400W "8KVA", 48v, Pure sine wave output, 50hz/60hz automatic</p> <p>Intelligent Inverter: Which means that the Inverter charges the batteries with intelligent controller depends on how much the batteries charged "Start with high charging and end with low charging for battery goodness.</p> <p>LED Screen: Which display every single detail about the whole system (Input voltage and frequency, Output voltage and frequency, Battery charge percentage, Load percentage and Temperature).</p> <p>Network Adapter: This provides remotely monitoring over network</p> <p>4x 200 A Deep Cycle Gel Battery \2000 Cycle. (Tripp lite or equivalent) With Base, raking, and required accessories</p>	No.	1
10-7	<p><b>Earthing system :</b></p> <p>Supply, install, test and commission complete earthing system for the following: all Security System(CCTV, PAS, fire, lighting panel...etc., and inverter. Including all conductors, copper bars tap-clamps, fixing, earthing pits, manhole ...etc. Design of the system and all items shall be according to BS 7430, and ANSI IEEE Std 80 to obtain required earth resistance less then (5 Ω) . Manufacture shall be: Wallis (U.K.) or equivalent. All of which shall be according to the specifications, drawings. Codes of practice and highest prevailing engineering standards for the following main system component:</p> <p>Extendible copper electrodes, (suggested length: 1.6~2.4 m),</p> <p>Main earthing cable: copper bared 35mm length as required. And earthing cables for gensets, hanger frame, and any other equipment: insulated cooper 25mm, length as required</p> <p>Copper earthing bar</p> <p>Pure Copper plate with 50 x 50 x 3 mm</p> <p>Earth pit with manhole cast iron cover plate complete as per standard, the cover of the manhole is preferred be clearly stamped with grounding sign.</p> <p>Ground Enhancement Material (GEM) 20kg"</p>	lump	1
10-8	<p><b>Caravan bathroom for the guard outside in the street</b></p> <p>Supply and install of Caravan from sandwich panel 8 cm thickness pressure 45 from the foam, with 1 door and 1 sliding aluminum windows special sections with double glass 6 mm according clear dimensions 2mx1.6m x3.50.</p> <p>Base frame are constructed of structural steel members of different profile welded together to give optimum rigidity to the floor, main beams I 14x7cmx8 mm around the Caravan, L shape 5*5*3 as a beams and columns and for the frame of door and window, rain shade on the top of the door, all caravan edge must be sandwich panel, and Steel tube with 80*40 mmx3 mm as secondary beams distributed each 50 cm, all steel parts must be coated by three layers of anti-rust coating and corrosion painting, four concrete foundation with 50 x 50 x 80 cm with 5 Ø 10 / m, and solid block wall under the main I beam with 60 cm height. stairs in front of the door, insulating the caravan from inside no steel material will be shown.</p> <p>The floor first layer is steel sheet of 1.50 mm, then insulation with bitumen roll with 5 mm thickness, then plain concrete with 5 cm thickness, then ceramic tiles for the floor.</p> <p>Electric and lightning internal and external with distribution plastic board main isolator with 1 PH with capacity 32A four lines with capacity 1 circuit breaker with 16 A, 2 circuit breaker with 10, 1 circuit breaker with 6;</p> <p>1 water proof socket 16 A, 1 water proof socket 13 A, 3 lumps one of them is water proof, wiring all the lighting with 1.5 mm, water heater socket 4 mm, the rest of the socket is 2.5 mm, connecting with the main electrical panel to feed the caravan.</p> <p>The Bathroom includes (eastern toilet, mixer, wash basin, ground siphons, shower tray and shower mixer, water heater, tiles for the bathroom floor, insulation under the bathroom with bitumen roll with 5 mm thickness, .....etc.</p> <p>Water tanks I 1000L capacity with its base it should be above 3.5 m height, the basement of the tank must be four columns with H 14 x 7x 6mm, two level of beams H 14 x 7x 6mm , secondary beams on the roof tube section with 8 *4 *3 mm distributed each 40 cm, base plate with 10 mm thickness , Reinforced concrete foundations with 40*40*40 using sulphates resisting cement</p> <p>Item includes all civil works required. (such as connecting water supply pipes (hot and cold) from to the source which is inside the villa, sewerage pipes 4in for bathroom to the nearest manhole of external sewerage, all the government permission...etc. ). Works under this item include all civil works required even if not mentioned explicitly in the bills of quantities such as excavation for the foundation, cable, water supply pipe from/to villa, cleaning and leveling the ground before the construction work...etc. The caravan must sit on zero level with no slopes. and All requirements to complete the item according to technical specifications. The contractor must be providing a sample of Sandwich Panel to adopted before implementation.</p>	lump	1
11	<p><b>Signage</b></p>		
11	<p>Supply, install, and commissioning night Reflective Glow Signages &amp; Boards. material: Photoluminescent material size: 300 mm X 200 MM. It will glow in dark in the event of pour failure. These tapes are immediately visible. Easily affixed on walls columns, stair ways etc. Sunboard thickness of 3mm. Rust proof, waterproof and chemically resistant finish, long-lasting service performance, according to drawings as follows:</p>	Note	
11-1	Supply and Install Reflective exit sign dimensions Height 200xlength 300x 3width	NO.	7
11-2	Supply and Install Reflective emergency exit sign dimensions Height 200xlength 300x 3width	NO.	2
11-3	Supply and Install Reflective Fire Extinguisher dimensions Height 200xlength 300x 3width	NO.	12

11-4	Supply and Install Reflective No Smoking dimensions Height 200xlength 300x 3width	NO.	4
11-5	Supply and Install Reflective Electrical panel dimensions Height 200xlength 300x 3width	NO.	5
11-6	Supply and Install Reflective fire call point dimensions Height 200xlength 200x 3width	NO.	12
11-7	Supply and Install Reflective fire assembly point dimensions Height 200xlength 300x 3width	NO.	1
11-8	Supply and Install Reflective fire scape rout dimensions Height 200xlength 300x 3width	NO.	8
11-9	Supply and Install Reflective panic alarm dimensions Height 200xlength 300x 3width	NO.	4
<b>12 Lighting</b>			
12-1	<b>LED lighting :</b> Supply, install , and commissioning of LED lighting fixture (150) W, 220V, 50Hz, IP 67 (European made or equivalent). The price includes sensors to be cut lightings off during the day, wire with 3 *4 mm+ 2.5 mm , water proof box, circuit breaker 3 A under each light, single steel arm with proper length).The work includes all accessories to complete the work as per specifications, drawings, and direction of supervisor engineer. LED Lamps ( CRYSTAL - OSRAM- oppel ) - or any other Equivalent.	Pcs	36
12-2	<b>Steel post for the lighting:</b> Supply, install , and commissioning of Steel galvanized Lighting Poles 8 meters ( started 4 in and end 3 in with thickness 3 mm) height with Single arm, the item includes base reinforced concrete size (100*100*70 cm with 5 Ø 12 as a box), excavation, back filling, and all civil work related to complete the work as per specification, drawings, and engineer direction.	Pcs	14
12-3	<b>Lighting panel :</b> Supply , install , test , and commissioning of Lighting Distribution Panel MCB 1Ø32 A with earth bar 2 p, 8 ways, circuit breaker class B with 10 A Qty.3 , three groups, feeding from the main panel, wire, complete with all protection and measuring accessories. The location of the panel shall be on the pedestrian access room.	Unit	1
12-4	<b>Main cable for the lighting :</b> Supply, install, test, and commissioning of power cables to energize the LED lighting fixtures: 600/1000/CU/PVC/PVC 3C*6 mm <sup>2</sup> , three line, the item shall include excavation in tiles/asphalt, pipes, compacted backfilling, fixing on the wall, and tiling . Including demolishing holes in concrete walls/ concrete flooring wherever required to lay down the cable in conduits with glands and cable terminations.... etc., according to drawings	M.L	3
12-5	<b>Emergency lighting :</b> Self contained emergency lighting fixture ceiling-mounted with function test. Body of polycarbonate housing, flame retardant & self extinguishing. Prismatic diffuser. Complete with converter / inverter and rechargeable, maintenance free sealed nickel cadmium batteries 3.6 v / 7 Ah. Rated duration 3 hrs using LED lamps. 220v/50hz(Philips or equivalent). It shall enable all occupants to leave the premises safely. with 2x2.5+1X2.5 sq. mm PVC insulated multistrand copper conductor cable (Saudi cable or equivalent) in recessed 25mm dia PVC pipe from the old SDB, trunky including all connections, suspension, clamps and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings .	NO.	23
<b>Total cost for security upgrade</b>			
<b>Maintenance work</b>			
<b>B</b>	<b>Civil Work and maintenance</b>		
<b>I</b>	<b>Ground floor</b>		
<b>1</b>	<b>Civil work</b>		
1-1	<b>Earthwork excavation:</b> Earthwork excavation for wall foundations in any kind of soil to the dimensions and levels shown in drawings. Item include scrapping off sidewalk, remove the tiles, remove any obstacles, cut concrete layer. Price to include backfilling with excavated soil if suitable or substituting same with selected approved imported soil, and removal of extra and unsuitable soil. Back filling shall be on layers of 200 mm thick with watering and compacting to (95%) of MDD. The item includes Disposing surplus excavated soils outside the site.	m <sup>3</sup>	1.2
1-2	<b>Plain concrete using sulphates resisting cement:</b> Supply and Cast ready mix Concrete for the plain concrete foundation with size 40 cm width * 20 cm depth with a minimum cement content of 300 Kg per cubic meter. Price include all form works, removal of forms, insulation the foundation with polyethylene , cleaning of all exposed tie wires and rods, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	m3	0.4
1-3	<b>Supply and cast reinforced concrete class(C28) using sulphates resisting cement for ground beam(20x40cm)</b> for the new wall foundation. Including cement , formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40) 3Ø 16 top and 3Ø 16 bottom, and 1Ø 8 @ 200 mm for the stirrup, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. The price include surface leveling, making good the harmed surfaces and edges and all surface finishing as per specifications and workmanship recommendations. Making holes in the exiting wall from both sides, imbedded the bars in this holes, grouting, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m3	0.4
1-4	<b>Solid Block Works:</b> supply and install block building using solid blocks (size 20x20x40) for wall. block should be done using a cement mortar 1:3 cement-sand. The building should be balanced and interlinked. Price includes all associated works such as watering, materials, placing of approval blocks, workmanship, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m <sup>2</sup>	24
1-5	<b>Supply and install non-slipping ceramic floor tiles size 40x40x0.8 cm</b> . The price includes remove the old linoleum, skirting. Item include skirting, all required finishing including using approved glue to stick the tiles, Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.	m <sup>2</sup>	125
1-6	<b>gypsum board:</b> Providing, Fabricating and fixing full height gypsum board partitions of overall the thickness of 200 mm consisting of the following: Framework: Partition framework made of channel galvanizes steel. It consists steel studs with 70 mm*1mm and steel truck with 69 mm *1 mm each 60 cm.work placed vertically and horizontally at a required center to center and channels supported by hinges, using galvanized metal screws Cladding: Partition framework to be covered with 12 mm thickness gypsum board on both sides of the partition line and level fixed with drywall screws @ 300mm c/c with staggered joints to avoid through joints and finished with proprietary supplied jointing tape and compound. Item includes highly elastic, a water-based caulking compound for sealing sound leaks around partition perimeters, insulation with mineral wool, and electrical boxes, sandpapering, painting, and all the required work to finish this item as per manufacturers specification.	m2	24
1-7	<b>Wooden Door:</b> Supply and install a wooden door (meranti wood) for each office with size 90 x 210 cm*4.5 cm. Item includes a wooden frame with 4.5 cm thickness and width same as plastered wall thickness; color is as directed by engineer; door stops, workmanship, hangs, handles, sandpapering, painting, insulation against termites, locks and all necessary parts needed to complete the works are according to drawings, specifications, conditions and directed instructions by the Engineer or his representative.	No.	1

1-8	<b>Aluminum door:</b> Supply and install Aluminum doors section 55 with width 0.80 m and 2.10 m height with 1.5mm special section . Item includes door frame, fixing in the walls each 15 cm, silicon sealant, supplying, workmanship, rubber, fixation, three hinges, locked, handles. All necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	No	1
1-9	<b>Solid Block Works:</b> supply and install block building using solid blocks (size 20x20x40) for closing window . It should be done using a cement mortar 1:3 cement-sand. The building should be balanced and interlinked. Price includes all associated works such as watering, materials, placing of approval blocks, workmanship, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m <sup>2</sup>	3
1-10	<b>Supply and make internal plastering 12 mm thick for walls</b> using with two faces: the first is the rough nail rendering (mix 1:1) cement: sand second layer 13mm: Base-Coat "Rendering" with (1:3) cement: sand mortar. Works include all materials needed to finish the works according to specifications, drawings and supervisor engineer's instructions.	m <sup>2</sup>	6
1-11	<b>Supply and apply two coats of oil paints on internal walls.</b> Price shall include surface preparation, priming, and putty. All according to Drawings, Specifications and instructions of the Engineer.	m <sup>2</sup>	6
1-12	<b>Maintenance for Wooden door:</b> maintenance work for the whole wooden doors. Item includes repainting, sandpapering, handles, door stops, changing locked, and hinges, fixation, adding plate 1.25 mm thickness and 20 cm height from both side with width the same the door width for all bathrooms door, according to conditions and directed instructions by the engineer or his representative. measurement shall be taken from the site	No.	6
1-13	<b>Maintenance for Aluminum windows:</b> maintenance work for the whole windows. Item includes supply and installation of silicon sealant, rubber, missing frame, handles, and hinges, fixation, changing the broken glass, mosquito mish according to conditions and directed instructions by the engineer or his representative. measurement shall be taken from the site	No.	3
1-14	<b>Maintenance for Aluminum Doors:</b> maintenance work for the whole doors. Item includes supply and installation of silicon sealant, rubber, missing frame, handles, and hinges, fixation, changing the broken glass, changing the locked according to conditions and directed instructions by the engineer or his representative. measurement shall be taken from the site	No.	8
1-15	<b>Maintenance for Aluminum partition:</b> maintenance work for the whole partition. Item includes supply and installation of silicon sealant, rubber, missing frame, fixation, changing the broken glass, changing the locked according to conditions and directed instructions by the engineer or his representative. measurement shall be taken from the site	No.	4
1-16	<b>Testing:</b> Test the water supply pipes and wasting pipes for all bathrooms in all the stories, item includes change the damage pipes, fittings, pipe nipples, demolition the tiles, re install the tiles, nuts, brass fitting adapters as per specifications, drawings and supervisor engineer instructions.	lump	1
1-17	<b>Repainting in order to renew the painting:</b> Supply and install first class painting for renewal internal walls, Acrylic painting the same the new one. Item shall include filling of all cracks, pores and openings or by using special materials by type of cracks before starting with paint, supply of all materials, scaffolds, workmanship & tools and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m2	680
1-18	<b>Repainting in order to renew Ceiling the painting:</b> Supply and apply two coats of water paints on ceiling. Price shall include filling of all cracks, pores and openings or by using special materials by type of cracks before starting with paint, cleaning surfaces of any obstacles, leaves or sheets surface preparation, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m2	170
1-19	<b>Termites Repellent in all ground floor :</b> supply, implement, inject and paint special material termites repellent consist of ( Urzban herbicide + water) solution, the phase of implementation as following: cutting the wall, make a hole in the floor at least 4 per msq , then at least spraying this solution at rate four sprayers per meter sq., it should be done using a 7.5 Cc herbicide per 1 liter of pure water, walls, wooden doors and floors of the rooms. Item includes excavation, spray, all materials, workmanship & tools, transporting, closing the holes, and all the requirements to finish this item according to as per manufacture instructions and codes of practice, and direct instructions by the Engineer	lump	1
<b>2</b>	<b>ELECTRICAL WORKS</b>		
2-1	Removing all the old cables and IT cable in all villa and outside the villa item includes testing each cable the us one shall be under ground all the requirement to finish this item according to direct instructions by the Engineer	lump	1
2-2	Change all the exiting tube fluorescent lightings with LED lighting with 2x 18 watt with its device. Color temperatures (CCT) shall be at least 3000 K (White LED), lamp Luminous Flux shall be at least 1600 lumen, input voltage 240V, Lamp Luminous Efficiency (lm/w) shall be at least 90%. IP20, Operation Temperature shall be 20°C to 50°C. Working Lifetime shall be at least 30000 h. Warranty shall be 2 Years, and be certified from CE, RoHS, SASO, UL. Temperature rise not greater than 25 degrees centigrade. including all connections, changing the old device , its suspension, clamps, switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications.	No.	24
2-3	Supply install, test and commission complete LED lighting. Color temperatures (CCT) shall be at least 6500 K (White LED), lamp Luminous Flux shall be at least 1400 lum, input voltage 240V, Lamp Luminous Efficiency (lm/w) shall be at least 90%. IP20, Operation Temperature shall be 20°C to 50°C. Working Lifetime shall be at least 30000 h. Warranty shall be 2 Years, and be certified from CE, RoHS, SASO, UL. Temperature rise not greater than 20 degrees centigrade. The lighting fixtures shall be with 2x1.5+1x2.5 sq. mm PVC insulated multistrand copper conductor cable(Saudi cable or equivalent) in recessed 25mm dia PVC pipe, including all connections, canceling the old lighting, removing the old one, suspension, clamps, switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications for the following:	Note	
2-3-1	Supply, install, connect and test tube LED lighting fixing on the ceiling fixture with 2x 18W lamp,	No.	5
2-3-2	Supply, install, connect and test tube LED lighting fixing on the ceiling fixture with 1x 18W lamp,	No.	4
2-3-3	Supply, install, connect and test ceiling mounted lighting fixture with 18W lamp,	No.	2
2-3-4	Supply, install, connect and test ceiling mounted lighting fixture with 18W lamp water proof	No.	7
2-3-5	Supply, install, connect and test Water Proof Mirror lighting fixture with 5W lamp	No.	3
2-4	Supply, install, test and commission a complete socket outlet point (Hager or equivalent) with (2x4+1x2.5) sq.mm, And (2x2.5+1x2.5) according to drawings of SDB plan, trunky (Legrand or equivalent) insulated multistrand copper conductor cable(Saudi cable or equivalent) , PVC pipe including all conductors, cables, drilling, conduits, boxes, make opening in the walls, labeling. Socket outlets and all connections between the appropriate distribution boards and the socket outlet or power connection point for the following:	Note	
2-4-1	2P+E DUPLEX SOCKET (13A-220V) (Hager or equivalent)	No.	13
2-4-2	2P+E SINGLE SOCKET (13A-220V) (Hager or equivalent) water proof	No.	6

2-4-3	2P+E SINGLE SOCKET (16A-220V) (Hager or equivalent) water proof	No.	3
2-5	<b>Ceiling Fan :</b> Installation, testing and commissioning of ceiling fan ( USHA Pakistan or equivalent ) with 70 watt capacity. including wiring the down rods 45 cm, RLS PVC insulated, PVC conduit, copper conductor, trankey, cable with 2.5 mm+2.5 mm to connect to the SDB, including providing and fixing phenolic laminated sheet cover on the fan box , 13 A switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications and instructions of the supervising engineer.	No.	9
2-6	<b>Ceiling Fan :</b> Remove the existing fan then, supply, Installation, testing and commissioning of ceiling fan ( USHA Pakistan or equivalent ) with 70 watt capacity. including wiring the down rods 45 cm, RLS PVC insulated, PVC conduit, copper conductor, including providing and fixing phenolic laminated sheet cover on the fan box , and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications and instructions of the supervising engineer.	No.	1
2-7	<b>Wall Fan :</b> Installation, testing and commissioning of wall fan ( USHA Pakistan or equivalent ) with 70watt capacity. including RLS PVC insulated, PVC conduit, copper conductor, trankey, cable with 2.5 mm+1.5 mm to connect to the SDB, switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications and instructions of the supervising engineer.	No.	2
2-8	<b>AC 2 ton:</b> Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 2 Ton, item includes cable with 2C X 6 mm+1*2.5 Saudi from the SDB to each unit, switch with 20 A, PVC pipes, fittings, trunky (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level , water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.	No.	1
2-9	<b>AC 1.5 ton:</b> Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 1.5 Ton, item includes cable with 2C X 4 mm+1*2.5 Saudi from the SDB to each unit, switch with 16 A, PVC pipes, fittings, trunky (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level, water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.	No.	4
2-10	<b>AC 1 ton:</b> Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 1 Ton, item includes cable with 2C X 2.5 mm +2.5mm Saudi from the SDB to each unit, switch with 13 A, PVC pipes, fittings, trunky (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level, water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.	No.	2
2-11	Remove the old electrical socket and check it than install a new one. item includes drilling, conduits, boxes according the drawing and instruction of supervision engineer	No.	6
2-12	Remove the old phone socket and check it than install a new one. item includes drilling, conduits, boxes according the drawing and instruction of supervision engineer	No.	4
2-13	Maintenance work for the existing MDB. Item includes testing all circuit breakers and all the cables, and change the damage of the cable and circuit breakers, remove all unnecessary objects, reorganize MBD, installation of cable tray, Trunkey, pipes, conduit, installation of new bass bar, installation of electrical mater frame, changing all old fuse, all electrical instrument have to be hidden in the wall, cutting the wall, plastering, painting, paining for all wooden cabinet, installation of new locked, handles, supply, implement, and paint special material termites repellent consist of ( Ursban herbicide + water) solution for all walls, and all the requirements to finish this item according to codes of practice, and direct instructions by the Engineer	lump	1
2-14	<b>Air Conditions . SDB 1ø 80 A</b> Supply, install, test and commission secondary distribution boards (Schneider, Hager or equivalent), complete with circuit breaker on incoming supply connection. The distribution boards shall be of metal-clad pattern complete with all circuit breakers, casing, busbar, protection equipment having sufficient connections for all circuit breakers, Fire resistance door for the panel, cutting the wall to install the board, plastering, painting, all in according with requirements of the specifications, drawings and codes of practice:	Note	
2-14-1	Indoor Sub-distribution board (SDB), 16 way outs	NO.	1
2-14-2	SDB 1ø 80Amp 2P , 230volt 1ø. ( Hager or equivalent)	NO.	1
2-14-3	Class B 16Amp,1P, 230 volt ,1ø. ( Hager or equivalent)	NO.	5
2-14-4	Class B 10Amp,1P, 230 volt ,1ø. ( Hager or equivalent)	NO.	6
2-14-5	Class B 16Amp,1P, 230 volt ,1ø. spare ( Hager or equivalent)	NO.	3
2-15	Supply, install, test and commission 3C x 25mm 600/1000v.XLPE/PVC/CU/, multi-core copper cables (Saudi cable or equivalent) from the MDB to the SDB of the room and perimeter lighting including all necessary cleats, supports, brackets, glands, cable terminals, underground cable trenches excavation and backfilling, pipes, Boxes, manholes ...etc. All of which shall be according to the specifications, drawings. Codes of practice and highest prevailing engineering standards, for the following:	m.l	3
2-16	<b>Cable to connect generator with ATS:</b> Supply, install, test and commissioning complete Low voltage power cables. Complete with lugs and terminations include excavation trench from the generator to ATS . All of which shall be according to the specifications and the Codes of practice and highest prevailing engineering standards for the following :- Power Cable XLPE/PVC/SWA/CU/4C/70 mm <sup>2</sup> , (0.6/1K.V) Applicable standards are: IEC 502 for Cables requirements, BS 6622:1977 for Cables requirements, IEC 228 for Conductors, BS 5467:1977 for Insulation. The cable core screen and armor shall be designed to carry an earth fault current of 13kA minimum. Approved manufacturers are: Jeddah, Doha, Elsewedy (Egypt), Bahrah, or Saudi cables. The insulation of the conductor shall be color-coded. Durable marking shall be provided on the surface of the cable or intervals not exceeding 610 mm stating the following: Manufacturer name, Origin, Date of manufacturing, Standard applied Including all required high quality terminal compression Lugs standard barrel type, high conductivity copper Cables shall be installed in over ground concrete trench with steel cover minimum 3 mm thickness, dimension of the trench is minimum 35cmX20cm includes the excavation, manhole , back filling, and all the requirements to finish this item in accordance with the specifications, drawings, and supervisor instructions.	L.m	45

2-17	<p><b>ATS :</b> Supply, install, test and commissioning ATS panel, digital controller and bypass switch. The location in ground floor , and it shall have the following specification:- 415V, 3 phase, 50Hz 4 wires, Ambient Temperature -10 C° to 55 C°. Main MCCB is 100 A, with 6 way-out MCB and 2 spare MCB. The DB shall be sheet steel enclosed self standing suitable for mounting outdoors . It shall be dust &amp; vermin proof with a degree of protection of IP-54. The DB shall be provided with cable entry at bottom with 3 mm removable gland plate. The frame of the DB shall be grounded. The board shall be of height of not less than 900mm. Frame shall be fabricated using pressed &amp; shaped CRCA sheet or Mild Steel strips of minimum 2.5mm thickness. The board shall be powder coated with an approved color shade with final finished thickness of 65 microns. The ATS must be between two sources the cable came from Grid network and Generator. Item includes all the cable between the grid network cable and ATS. Busbars shall be thoroughly cleaned at the joint locations and a suitable contact grease shall be applied just before making a joint. The DB shall be equipped with Indicating Instruments and Multi Function Meters for V,I, pf,...etc. Indicating Lamps for incomers (on/off) and trip indications and shall be Cluster LED type having low watt consumption and shall be provided with translucent lamp cover of appropriate color. The bulb &amp; lens shall be easily replaceable from the front. All the switchgears to be from reputed makers like Schneider, ABB, Legrand, Siemens. Concrete foundation shall be installed to fix the DB. The height shall be not less then 30cm, class C25 Warranty: The Electrical Distribution board shall cover a warranty for trouble free operation for a period of 12 months from the date of commissioning. Any defects discovered during this period shall be rectified free of charge without any cost including transportation. Wiring inside the board shall be carried out with 1100/650V grade.</p>	No.	1
2-18	<p><b>Main Distribution Board:</b> Supply, install, test and commissioning Main Distribution Board. The location is Ground floor, and it shall have the following specification: - 415V, 3 phases, 50Hz 4 wires, Main MCCB is 100 A, with MDB with 1 ø100 Qty.3, MCB with 1 ø64 Qty.1, MCB with 1 ø80 Qty.2., and 1 ø40 Qty.1, 1 spare, The DB shall be sheet steel enclosed self-standing suitable for mounting outdoors . It shall be dust &amp; vermin proof with a degree of protection of IP-54. The DB shall be provided with cable entry at bottom with 3 mm removable gland plate. The frame of the DB shall be grounded. The board shall be of height of not less than 1000 mm*800mm. Frame shall be fabricated using pressed &amp; shaped CRCA sheet or Mild Steel strips of minimum 2.5mm thickness. The board shall be powder coated with an approved color shade with final finished thickness of 65 microns. Busbar joints shall be complete with high tensile steel bolt and washers and nuts. Busbars shall be thoroughly cleaned at the joint locations and a suitable contact grease shall be applied just before making a joint. All the circuit breakers to be from reputed makers like Hager, Schneider, or equivalent Item includes all the cables. Warranty: The Electrical Distribution board shall cover a warranty for trouble free operation for a period of 12 months from the date of commissioning. Any defects discovered during this period shall be rectified free of charge without any cost including transportation. Wiring inside the board shall be carried out with 1100/650V grade</p>	No.	1
2-19	<p><b>Earthing system for all villa, security room, and server room:</b> Supply, install, test and commission complete earthing system for the following: all electrical panels MCCB and MDB in the Ground , each SDB in each floor, perimeter lighting, pedestrian access room, generators. Including all conductors, copper bars tap-clamps, fixing, earthing pits, manhole ...etc. Design of the system and all items shall be according to BS 7430, and ANSI IEEE Std 80 to obtain required earth resistance less then (5 Ω) . Manufacture shall be: Wallis (U.K.) or equivalent. All of which shall be according to the specifications, drawings. Codes of practice and highest prevailing engineering standards for the following main system component: Extendible copper electrodes, (suggested length: 1.6~2.4 m), Main earthing cable: copper bared 35mm length as required. And earthing cables for gansets, hanger frame, and any other equipment: insulated cooper 25mm, length as required Copper earthing bar Pure Copper plate with 50 x 50 x 3 mm Earth pit with manhole cast iron cover plate complete as per standard, the cover of the manhole is preferred be clearly stamped with grounding sign. Ground Enhancement Material (GEM) 20kg"</p>	lump	1
3	<b>Security systems SDB</b>		
3-1	<p><b>Security SDB 1ø 40A inside the server room</b> Supply, install, test and commission new secondary distribution boards (Hager or equivalent), complete with circuit breaker on incoming supply connection. The distribution boards shall be of metal-clad pattern complete with all circuit breakers, casing, busbar, protection equipment having sufficient connections for all circuit breakers, Fire resistance door for the panel, water proof , fixing on the wall, and all requirements to finish this item according specifications, drawings and codes of practice:</p>	Note	
3-1-1	Sub-distribution board (SDB), 8 way outs	No.	1
3-1-2	MCB 40 Amp ,2P, 1ø. (Hager or equivalent)	No.	1
3-1-3	breaker class B with 16Amp,1P, 230 volt ,1ø. (Hager or equivalent)	No.	2
3-1-4	breaker class B with 10Amp,1P, 230 volt ,1ø. (Hager or equivalent)	No.	4
3-2	Supply, install, test and commission a complete socket outlet point (Hager or equivalent) with (2x4+1x2.5) sq.mm, And (2x2.5+1x2.5) according to drawings of SDB plan, trunky (Legrand or equivalent) insulated multistrand copper conductor cable(Saudi cable or equivalent) , PVC pipe including all conductors, cables, drilling, conduits, boxes, make opening in the walls, labeling. Socket outlets and all connections between the appropriate distribution boards and the socket outlet or power connection point for the following:	Note	
3-2-1	2P+E DUPLEX SOCKET (13A-220V) for each security system in the safe room, four server room, and one in pedestrian access room, and for the finger print and electrical locked (Hager or equivalent)	No.	15

3-3	<p>Supply, install, test and commissioning ATS panel, digital controller and bypass switch. The location server room , and it shall have the following specification:-  220V, 1 phase, 50Hz 3 wires, Ambient Temperature -10 C° to 55 C°, Main MCCB is 40 A, with 8 way-out MCB  The DB shall be sheet steel enclosed self standing suitable for mounting outdoors . It shall be dust &amp; vermin proof with a degree of protection of IP-54. The DB shall be provided with cable entry at bottom with 3 mm removable gland plate. The frame of the DB shall be grounded.  The board shall be of height of not less than 300mm. Frame shall be fabricated using pressed &amp; shaped CRCA sheet or Mild Steel strips of minimum 2.5mm thickness. The board shall be powder coated with an approved color shade with final finished thickness of 65 microns.  The ATS must be between two sources the cable came from the ATS ( Generator and Grid network) and UPS.  Item includes all the cable between the inverter and this ATS.  Busbar joints shall be complete with high tensile steel bolt and washers and nuts. Busbars shall be thoroughly cleaned at the joint locations and a suitable contact grease shall be applied just before making a joint.  The DB shall be equipped with Indicating Instruments and Multi Function Meters for V,I, pf,...etc. Indicating Lamps for incomers (on/off) and trip indications and shall be Cluster LED type having low watt consumption and shall be provided with translucent lamp cover of appropriate color. The bulb &amp; lens shall be easily replaceable from the front.  All the switchgears to be from reputed makers like Schneider, ABB, Legrand.  Warranty: The Electrical Distribution board shall cover a warranty for trouble free operation for a period of 24 months from the date of commissioning. Any defects discovered during this period shall be rectified free of charge without any cost including transportation.  Wiring inside the board shall be carried out with 1100/650V grade.</p>	No.	1
3-4	<p>Cable to connect ATS ( Generator and Grid network) and UPS :  Supply , install , test , and commissioning of power cables to connect between ATS ( Generator and Grid network) TO UPS in the pedestrian access : 600/1000/CU/PVC/PVC 3C*16mm the item shall include excavation in tiles/asphalt, compacted backfilling, PVC pipes, fittings, trunky (Legrand or equivalent). Including demolishing holes in concrete walls/ concrete flooring wherever required to lay down the cable in conduits with glands and cable terminations... etc., according to drawings</p>	L.m	30
4	<b>Installation of a new kitchen</b>		
4-1	<p><b>Demolition Work:</b>  Demolish work for the tiles of the existing kitchen wall and floor. Item include removing all the equipment and canceling the existing sewage system and water supply, canceling all the electrical wire and sockets and moving the electrical switches to be far away, removing all remaining obstacles such as soil, concrete, stones, .... etc. (Site visit necessary) to prepare the site to start the construction of the project. all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, and all the necessary work to finish this item as per specifications and directed by the engineer.</p>	lump	1
4-2	<p><b>Water Supply Pipes</b>  Supply and install Polyethylene pipes (hot and cold) (0.75") for water lines in order to connect the water to kitchen from the main tank on the roof, connecting from the heater which is in the bathroom, and connect mixer inside the kitchen. Item includes main valves, angle valves, cutting the walls, plastering, and repainting, make an opening in the external wall, fixing on the wall, fittings, pipe nipples, nuts, unions, brass fitting adapters as per specifications, drawings and supervisor engineer instructions.</p>	L.m.	15
4-3	<p><b>Floor Trap:</b>  Supply and fix floor trap (100mm diameter, 2.5mm thickness for the kitchen) complete with concrete protection and heavy-duty brass grating. Item includes drainage piping to manhole with 4 in, T connection, fitting , make an opening in the external wall, closing this opening with plaster, all civil works, and all the necessary work to finish this item according to the technical specifications, drawings, and instruction of supervisor engineer or his representative.</p>	No.	1
4-4	<p><b>Sink.</b>  Supply, install, testing and commissioning of, double compartment stainless steel sink. Item includes chrome plated mixer, retractable hose, waste outlet, tail pieces, PVC pipe to connected with a trap with 2 in. It shall be provided with pre-punched fixture center hole, integral back ledge to accommodate deck-mounted fixtures, and fixing on the wall, and all the requirement to finish this item according to specifications and engineer direction.</p>	NO	1
4-5	<p><b>Suction Fan:</b>  Providing and fixing suction fan with 20 cm dia item includes cable with 2* 1.5 mm,PVC conduit, trunky, socket, switch and all the requirement to finish this item according to technical specification and instruction of supervisor engineer.</p>	No.	1
4-6	<p><b>Supply and install non-slipping ceramic floor tiles size 40x40x0.8 cm.</b> The price should include 2.5 cm mortar bed and 10 cm thick sand bed, cutting&amp; trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.</p>	2 m	12
4-7	<p><b>Supply and fix non-slip color ceramic tiles (Spain-made or equivalent ) , size 40x25x0.60cm for the walls</b> of the kitchen with 1.5 m height. The tiles shall be laid and fixed to the walls by approved grouting and adhesive materials. The price includes, Grouting, preparing the surface to fixed tiles and final polishing as per specifications, drawings and supervisor engineer's instructions or his representative.  The color of the tiles shall be as chosen by the Engineer</p>	m <sup>2</sup>	24
4-8	<p><b>Insulation:</b>  Supply and install waterproof of bitumen rolls 5 mm thick in order to insulate the floor of the kitchen. Item includes all necessary material to complete the works as shown in the drawings and as per manufacturer instructions and codes of practice and specifications and engineer's instructions.</p>	m2	12
5	<b>Installation of new bathrooms</b>		
5-1	<p><b>Demolition Work:</b>  Demolish work for the tiles of the existing bathroom wall and floor. Item include removing all the equipment and canceling the existing sewage system and water supply, canceling all the electrical wire and sockets and moving the electrical switches to be far away, removing all remaining obstacles such as soil, concrete, stones, .... etc. (Site visit necessary) to prepare the site to start the construction of the project. all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, and all the necessary work to finish this item as per specifications and directed by the engineer.</p>	lump	1
5-2	<p><b>Floor Trap:</b>  Supply and fix floor trap (100mm diameter, 2.5mm thickness for the bathroom) complete with concrete protection and heavy-duty brass grating. Item includes drainage piping to main pipe, T connection, fitting , make an opening in the external wall, closing this opening with plaster, all civil works, and all the necessary work to finish this item according to the technical specifications, drawings, and instruction of supervisor engineer or his representative.</p>	No.	2
5-3	<p><b>Sewerage UPVC Pipes with 4 in Dia ( main pipe)</b>  Supply, install, testing and commissioning of the UPVC (5.5mm Thickness) 4 inch waste water drainage including, pipe fittings, connection to drainage manhole required sleeves and all necessary accessories as per drawings, specifications and related E96:F98codes.</p>	L.m.	15
5-4	<p><b>Western Toilet:</b>  Supply and install a western toilet( Italian or equivalent first type ). Item includes mounted floor, white color, Porcelain, siphon jet water closet/toilet with an elongated bowl, seat with open front and checks hinges, and all necessary accessories such as a capacity cistern, valves, fittings, 13mm stop angle valves, chrome plated 13mm hose, heavy duty, connecting water supply pipes and sewerage networks and make an opening in the external wall, all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.</p>	No.	2

5-5	<b>Stainless Steel hand-held sprayer head:</b> Supply and fix Stainless Steel hand-held sprayer head. Item includes 7/8" T-Valve adapter, 4ft flexible reinforced stainless steel hose, metal hook angle valves, connecting water supply pipes and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	2
5-6	<b>Water Tap:</b> supply and install water tap in the bathroom. Item includes connecting to the water system, pipe nipples, nuts according to technical specifications, drawings and instructions of supervisor engineer	No.	2
5-7	<b>Hand Wash Basin:</b> Supply and fix hand wash basin( Italian or equivalent first type ) Complete with, waste fittings, plug, water mixer (hot and cold), soap holder, and 2" drainage pipe to floor trap, necessary water connection, all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	2
5-8	<b>Suction Fan:</b> Providing and fixing suction fan with 20 cm dia item includes cable with 2* 1.5 mm to connect to SDB,PVC conduit, trunky, socket, switch and all the requirement to finish this item according to technical specification and instruction of supervisor engineer.	No.	2
5-9	<b>Stainless Toilet Paper Holder:</b> Providing and fixing stainless toilet paper holder fixed in position by means of C.P. screws and rawl plugs embedded in the walls complete including cutting and making good the walls wherever required.	No.	2
5-10	<b>Mirror:</b> Supply and install Mirror wall paneling above the wash basin with 1/4 " thickness. It consists of thick beveled mirror with 3" etching on all four sides of the mirror, shelf . Edges to be polished & mirror to be fixed in the wall on SS mirror screws, the contractor should submit a sample before implemented the work and all the requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	2
5-11	<b>Shower:</b> Supply and install shower size ( 90 cm * 90cm ) in the bathrooms with all accessories: (shower tray ,shower ,mixers) items includes hose, stand, glazed fire clay soap holder, all needed fittings, pipes, and connections to water and all the required works such as connecting water supply pipes , sewerage pipe , all the required works to finish this item according to technical specifications and instructions of supervisor engineer.	No.	1
5-12	<b>Water Supply Pipes</b> Supply and install Polyethylene pipes (hot and cold) (0.75") for water lines in order to connect the water to bathroom from the main tank on the roof, and connect mixer inside the bathroom . Item includes main valves, angle valves, cutting the walls, plastering, and repainting, make an opening in the external wall, fixing on the wall, fittings, pipe nipples, nuts, unions, brass fitting adapters as per specifications, drawings and supervisor engineer instructions.	L.m.	40
5-13	<b>Supply and install non-slipping ceramic floor tiles size 40x40x0.8 cm.</b> The price should include 2.5 cm mortar bed and 5 cm thick sand bed, cutting& trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.	m2	13.5
5-14	<b>Supply and fix non-slip color ceramic tiles (Spain-made or equivalent ) , size 40x25x0.60cm for the walls</b> of the bathroom. The tiles shall be laid and fixed to the walls by approved grouting and adhesive materials. The price includes, Grouting, preparing the surface to fixed tiles and final polishing as per specifications, drawings and supervisor engineer's instructions or his representative. The color of the tiles shall be as chosen by the Engineer	m2	80
5-15	<b>Insulation :</b> Supply and install waterproof of bitumen rolls 5 mm thick in order to insulate the floor of the bathroom. Item includes all necessary material to complete the works as shown in the drawings and as per manufacturer instructions and codes of practice and specifications and engineer's instructions.	m2	13.5
5-16	<b>water heater</b> Supply and install electrical water heater of capacity 50 liter with automatic thermostat. Item includes all necessary valves, electrical connections, cables and all other fittings, wiring, electrical work, socket with 20 A, connecting to the SDB, and accessories as per drawings and specifications and engineer's instructions.	No.	2
5-17	<b>Duct :</b> Supply and install duct with fabricated mad stainless steel in the bathroom wall one line with 25*2 ,The price includes air push fan(COMEX) with 30 Dia, dampers, filter, joint to connect the ducts, demolition of the wall for the duct, waterproof switch, Pvc pipe, cable with 2.50 mm x 4, conduit, fittings, and all the requirement to finish this item as per specifications, drawings and supervisor engineer's instructions or his representative.	No.	1
II	<b>First Floor</b>		
6	<b>Civil work</b>		
6-1	<b>Removal works :</b> Remove the existing wooden door and demolition a part of its wall . price includes fixing the crack around the door using Epoxy material, plastering around the opening. Item includes remove remaining obstacles such as wooden plate, concrete, stones, soil that mixed with demolishing debris.... etc., all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost ( in case the owner does not need it ), stacking steel materials without damage to be reused and all the required work to finish this item as per specifications, conditions and direct instructions by the Engineer or his representative.	No.	1
6-2	Providing, Fabricating and fixing full height gypsum board partitions of overall the thickness of 200 mm consisting of the following: Framework: Partition framework made of channel galvanizes steel. It consists steel studs with 70 mm*.5mm and steel truck with 69 mm *.5 mm each 60 cm.work placed vertically and horizontally at a required center to center and channels supported by hinges, using galvanized metal screws Cladding: Partition framework to be covered with 12 mm thickness gypsum board on both sides of the partition line and level fixed with drywall screws @ 300mm c/c with staggered joints to avoid through joints and finished with proprietary supplied jointing tape and compound. Item includes highly elastic, a water-based caulking compound for sealing sound leaks around partition perimeters, insulation with mineral wool, and electrical boxes, sandpapering, painting, and all the required work to finish this item as per manufacturers specification.	m2	53

6-3	<p>Providing, Fabricating and fixing full height cement board partitions of overall the thickness of 200 mm consisting of the following:  <b>Framework:</b>  Partition framework made of channel galvanizes steel. It consists steel studs with 70 mm*1.5mm and steel truck with 69 mm *1.5 mm each 60 cm.work placed vertically and horizontally at a required center to center and channels supported by hinges, using galvanized metal screws  <b>Cladding:</b>  Partition framework to be covered with 9 mm thickness  Cement board on both sides of the partition line and level fixed with drywall screws @ 300mm c/c with staggered joints to avoid through joints and finished with proprietary supplied jointing tape and compound.  Item includes highly elastic, a water-based caulking compound for sealing sound leaks around partition perimeters, insulation with mineral wool, and electrical boxes, sandpapering, painting, peppering to install tiles, and all the required work to finish this item as per manufacturers specification.</p>	m <sup>2</sup>	40
6-4	<p><b>Wooden Door:</b>  Supply and install a wooden door (meranti wood) for each office with size 90 x 210 cm*4.5 cm. Item includes a wooden frame with 4.5 cm thickness and width same as plastered wall thickness; color is as directed by engineer; door stops, workmanship, hangs, handles, sandpapering, painting, insulation against termites, locks and all necessary parts needed to complete the works are according to drawings, specifications, conditions and directed instructions by the Engineer or his representative.</p>	No.	4
6-5	<p><b>Solid Block Works:</b>  supply and install block building using solid blocks (size 20x20x40) for closing door . It should be done using a cement mortar 1:3 cement-sand. The building should be balanced and interlinked. Price includes all associated works such as watering, materials, placing of approval blocks, workmanship, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.</p>	m <sup>2</sup>	3
6-6	<p><b>Supply and make internal plastering 12 mm thick for walls</b> using with two faces: the first is the rough nail rendering (mix 1:1) cement: sand second layer 13mm: Base-Coat "Rendering" with (1:3) cement: sand mortar. Works include all materials needed to finish the works according to specifications, drawings and supervisor engineer's instructions.</p>	m <sup>2</sup>	6
6-7	<p><b>Supply and apply two coats of oil paints on internal walls.</b> Price shall include surface preparation, priming, and putty. All according to Drawings, Specifications and instructions of the Engineer.</p>	m <sup>2</sup>	6
6-8	<p><b>Maintenance for Wooden door:</b>  maintenance work for the whole wooden doors. Item includes repainting, sandpapering, handles, door stops, locked, and hinges, fixation, adding plate 1.25 mm thickness and 20 cm height from both side with width the same the door width for all bathrooms door, according to conditions and directed instructions by the engineer or his representative.  measurement shall be taken from the site</p>	No.	5
6-9	<p><b>Maintenance for Aluminum windows:</b>  maintenance work for the whole windows. Item includes supply and installation of silicon sealant, rubber, missing frame, handles, and hinges, fixation, changing the broken glass, mosquito mish according to conditions and directed instructions by the engineer or his representative.  measurement shall be taken from the site</p>	lump	1
6-10	<p><b>Testing:</b>  Test the water supply pipes and wasting pipes for all bathrooms in all the stories, item includes change the damage pipes, fittings, pipe nipples, demolition, drawings and supervisor engineer instructions.</p>	lump	1
6-11	<p><b>pump:</b>  Supply installation and commissioning of a pump in the roof to increase the water pressure with capacity .5 horse. Item includes connecting the pump with the electricity, waterproof switch, Pvc pipe, cable with 2.50 mm x 4, conduit, fittings, pipes to connect the pump with the tank then to each water supply pipe, fittings, pipe nipples, nuts, brass fitting adapters as per specifications, drawings and supervisor engineer instructions.</p>	NO.	1
6-12	<p><b>plastic water tanks</b>  Supply and install plastic water tanks with 2000L capacity, 3 layers, made of polyethylene. Item includes electrical float, connection from the main underground tank to the roof, water supply pipes, tanks base, install water electrical pump with vertical head min.35 m, and valves and any other related accessories. The price includes all requirements to complete the work according to technical specifications and drawings</p>	NO	1
6-13	<p><b>Maintenance work for the existing sliding door</b>  Item includes changing the existing channel in the ground and the top part of the gate, change the wheels and bearing, change the door lock, removing, reinstalling, all steel parts must be coated by two layers of anti-rust and corrosion coating (polyoxy PS) gray color, welding electrode and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer.</p>	NO	1
6-14	<p><b>Repainting in order to renew the painting:</b>  Supply and install first class painting for renewal internal walls, Acrylic painting the same the new one. Item shall include filling of all cracks, pores and openings or by using special materials by type of cracks before starting with paint, supply of all materials, scaffolds, workmanship &amp; tools and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.</p>	m <sup>2</sup>	260
6-15	<p><b>Repainting in order to renew Ceiling the painting:</b>  Supply and apply two coats of water paints on ceiling. Price shall include filling of all cracks, pores and openings or by using special materials by type of cracks before starting with paint, cleaning surfaces of any obstacles, leaves or sheets surface preparation, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.</p>	m <sup>2</sup>	170
6-16	<p><b>Removing the existing tiles then supply and install non-slipping ceramic floor tiles size 40x40x0.8 cm for the room behind the kitchen</b> . The price should include 2.5 cm mortar bed and 8 cm thick sand bed, cutting&amp; trimming around floor utilities opening, skirting. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.</p>	m <sup>2</sup>	18
6-17	<p>Termites Repellent in all first floor:  supply, implement, inject and paint special material termites repellent consist of ( Urzban herbicide + water) solution, the phase of implementation as following:  cutting the wall, make a hole in the floor at least 4 per msq , then at least spraying this solution at rate four sprayers per meter sq., it should be done using a 7.5 Cc herbicide per 1 liter of pure water, walls, wooden doors and floors of the rooms. Item includes excavation, spra, all materials, workmanship &amp; tools, transporting, closing the holes, and all the requirements to finish this item according to as per manufacture instructions and codes of practice, and direct instructions by the Engineer</p>	lump	1
7	<b>ELECTRICAL WORKS</b>		

7-1	Supply, test and install LED lighting with 18 watt with its basement (Opplé, Philips, or equivalent). Color temperatures (CCT) shall be at least 6500 K (White LED), lamp Luminous Flux shall be at least 1400 lumen, input voltage 240V, Lamp Luminous Efficiency (lm/w) shall be at least 98%. IP20, Operation Temperature shall be 20°C to 50°C. Working Lifetime shall be at least 30000 h. Warranty shall be 2 Years, and be certified from CE, RoHS, SASO, UL. Temperature rise not greater than 25 degrees centigrade. including all connection, cable to connect from the existing point light, clamps, switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications.	No.	2
7-2	Supply, test and install LED lighting with 18 watt with its basement (Opplé, Philips, or equivalent) Water proof. Color temperatures (CCT) shall be at least 6500 K (White LED), lamp Luminous Flux shall be at least 1400 lumen, input voltage 240V, Lamp Luminous Efficiency (lm/w) shall be at least 98%. IP20, Operation Temperature shall be 20°C to 50°C. Working Lifetime shall be at least 30000 h. Warranty shall be 2 Years, and be certified from CE, RoHS, SASO, UL. Temperature rise not greater than 25 degrees centigrade. Including all connection, cable to connect from the existing point light, clamps, switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications.	No.	6
7-3	Change all the exiting tube fluorescent lightings with LED lighting with 2x 18 watt with its device. Color temperatures (CCT) shall be at least 3000 K (White LED), lamp Luminous Flux shall be at least 1600 lumen, input voltage 240V, Lamp Luminous Efficiency (lm/w) shall be at least 90%. IP20, Operation Temperature shall be 20°C to 50°C. Working Lifetime shall be at least 30000 h. Warranty shall be 2 Years, and be certified from CE, RoHS, SASO, UL. Temperature rise not greater than 25 degrees centigrade. including all connections, changing the old device to be with two lamps instead of one, its suspension, clamps, switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications.	No.	4
7-4	Supply install, test and commission complete LED lighting. Color temperatures (CCT) shall be at least 6500 K (White LED), lamp Luminous Flux shall be at least 1400 lum, input voltage 240V, Lamp Luminous Efficiency (lm/w) shall be at least 90%. IP20, Operation Temperature shall be 20°C to 50°C. Working Lifetime shall be at least 30000 h. Warranty shall be 2 Years, and be certified from CE, RoHS, SASO, UL. Temperature rise not greater than 20 degrees centigrade. The lighting fixtures shall be with 2x1.5+1x2.5 sq. mm PVC insulated multistrand copper conductor cable(Saudi cable or equivalent) in recessed 25mm dia PVC pipe, including all connections, canceling the old lighting, removing the old one, suspension, clamps, switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications for the following:	Note	
7-4-1	Supply, install, connect and test tube LED lighting fixing on the ceiling fixture with 1x 18W lamp,	No.	14
7-4-2	Supply, install, connect and test ceiling mounted lighting fixture with 18W lamp water proof	No.	6
7-4-3	Supply, install, connect and test Water Proof Mirror lighting fixture with 5W lamp	No.	3
7-5	Supply, install, test and commission a complete socket outlet point (Hager or equivalent) with (2x4+1x2.5) sq.mm, And (2x2.5+1x2.5) according to drawings of SDB plan, trunky (Legrand or equivalent) insulated multistrand copper conductor cable(Saudi cable or equivalent) , PVC pipe including all conductors, cables, drilling, conduits, boxes, make opening in the walls, labeling. Socket outlets and all connections between the appropriate distribution boards and the socket outlet or power connection point for the following:	Note	
7-5-1	2P+E DUPLEX SOCKET (13A-220V) (Hager or equivalent)	No.	15
7-5-2	2P+E SINGLE SOCKET (13A-220V) (Hager or equivalent) water proof	No.	6
7-5-3	2P+E SINGLE SOCKET (16A-220V) (Hager or equivalent) water proof	No.	4
7-6	<b>Ceiling Fan :</b> Installation, testing and commissioning of ceiling fan ( USHA Pakistan or equivalent ) with 70 watt capacity. including wiring the down rods 45 cm, RLS PVC insulated, PVC conduit, copper conductor, trankey, cable with 2.5 mm+2.5 mm to connect to the SDB, including providing and fixing phenolic laminated sheet cover on the fan box , 13 A switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications and instructions of the supervising engineer.	No.	7
7-7	<b>AC 1.5 ton:</b> Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 1.5 Ton, item includes cable with 2C X 4 mm+1*2.5 Saudi from the SDB to each unit, switch with 16 A, PVC pipes, fittings, trunky (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level, water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.	No.	2
7-8	<b>AC 1 ton:</b> Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 1 Ton, item includes cable with 2C X 2.5 mm +2.5mm Saudi from the SDB to each unit, switch with 13 A, PVC pipes, fittings, trunky (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level, water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.	No.	3
7-9	<b>Air Conditions . SDB 1φ 80 A</b> Supply, install, test and commission secondary distribution boards (Schneider, Hager or equivalent), complete with circuit breaker on incoming supply connection. The distribution boards shall be of metal-clad pattern complete with all circuit breakers, casing, busbar, protection equipment having sufficient connections for all circuit breakers, Fire resistance door for the panel, cutting the wall to install the board, plastering, painting, all in according with requirements of the specifications, drawings and codes of practice:	Note	
7-9-1	Indoor Sub-distribution board (SDB), 16 way outs	NO.	1
7-9-2	SDB 1φ 80Amp 2P , 230volt 1φ. ( Hager or equivalent)	NO.	1
7-9-3	Class B 16Amp,1P, 230 volt ,1φ. ( Hager or equivalent)	NO.	5
7-9-4	Class B 10Amp,1P, 230 volt ,1φ. ( Hager or equivalent)	NO.	8
7-9-5	Class B 16Amp,1P, 230 volt ,1φ. spare ( Hager or equivalent)	NO.	1
7-10	Supply, install, test and commission 3C x 25mm 600/1000v.XLPE/PVC/CU/, multi-core copper cables (Saudi cable or equivalent) from the MDB to the SDB of the room and perimeter lighting including all necessary cleats, supports, brackets, glands, cable terminals, underground cable trenches excavation and backfilling, pipes, Boxes, manholes ...etc. All of which shall be according to the specifications, drawings. Codes of practice and highest prevailing engineering standards, for the following:	m.l	10
<b>8</b>	<b>Changing the Terrace to be a hall</b>		
8-1	<b>Demolition Work:</b> Demolish work for the floor tiles, steel handrails, parapet, concrete on the top of the existing door. Item include fixing the cracks in the external wall by using epoxy material, prepper the site to be a hall, removing all remaining obstacles such as soil, concrete, stones, ... etc. (Site visit necessary) to prepare the site to start the construction of the project. all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, and all the necessary work to finish this item as per specifications and directed by the engineer.	lump	1
8-2	<b>Solid Block Works:</b> supply and install block building using solid blocks (size 15x20x40) for new partition, it should be done using a cement mortar 1:3 cement-sand. The building should be balanced and interlinked. Price includes all associated works such as watering, materials, scaffolds, placing of approval blocks, workmanship, Preliminary installations for Electrical and any concrete elements wherever required, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m2	108

8-3	<p>lintel :</p> <p>Supply and install concrete reinforced concrete lintel with minimum reinforcement which is (2 ø 12 bottom and 2ø 12 top with hangers to support the top bars) above doors and windows, the depth is not less than 15 cm. Fcu = 25 Mpa, the length shall extend at least 20cm on both sides. Item include make a hole in the wall with at least 15 cm from both sides all form works, removal of forms, cleaning of all exposed tie wires and rods, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer</p>	L.m.	10
8-4	<p><b>Supply and make external plastering 20 mm thick for walls</b> using sulphates resisting cement with four faces: the first is the rough nail rendering (mix 1:1) cement: sand, the second is 5mm thick mortar (mix1: 2) cement: sand, the third is the undercoat 13mm (mix 1: 3) cement: sand, the forth is make Finishing Coat, smooth surface with (1:1) cement: sand mortar. and all this is according to specifications, drawings and supervisor engineer's instructions</p>	2 m	108
8-5	<p><b>Supply and make internal plastering 12 mm thick for walls</b> using with two faces: the first is the rough nail rendering (mix 1:1) cement: sand second layer 13mm: Base-Coat "Rendering" with (1:3) cement: sand mortar. Works include all materials needed to finish the works according to specifications, drawings and supervisor engineer's instructions.</p>	m <sup>2</sup>	186
8-6	<p><b>Supply materials and make anti humidity and water proof emulsion paint for external walls</b> , sanding, priming, putty, under coat, and finishing coats ta least three layers, all according to Drawings, Specifications and instructions of the Engineer. The price should include preparing surface, clean, remove dust.</p>	m <sup>2</sup>	108
8-7	<p><b>Supply and apply two coats of oil paints on internal walls.</b> Price shall include surface preparation, priming, and putty. All according to Drawings, Specifications and instructions of the Engineer.</p>	2 m	186
8-8	<p><b>Roof :</b></p> <p>Supply and install rib metal plate for all the roofs with 1.5 mm thickness. Item includes heat insulation, adding beams around the wall with IP140(14x7x6mm), secondary beams tube section 10 * 5 cm * 3 mm each 50 cm, stiffeners where the connection between the secondary beam and the main beam with thickness 4 mm, cutting , implementing at least two layers of anti- corrosion, and moisture proofing paint (polyoxy ps or equivalent), good sandpaper before the paint process, welding electrode above the secondary beam each every 50 cm, cutting if it necessary, grouting, all debris shall be transported out of site, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer.</p>	m <sup>2</sup>	70
8-9	<p><b>Decorative gypsum board :</b></p> <p>supply and install the decorative gypsum board( approved quality) covered by plastic or PVC with 60 cm * 60 cm * 9 mm thickness, it must be fire resistant, includes wall angle, cross tee, cross tee clip, runner, steel holders, beams from the galvanize steel, electrical establishment fixing in wall all the required work to finish this item as per specifications and directed by the engineer.</p>	2 m	60
8-10	<p><b>Aluminum windows:</b></p> <p>Supply and install Aluminum windows width 1.0 m and 1.2 height with 1.5mm special section . Item includes silicon sealant, supplying, workmanship, rubber, fixation, hinges, double glass 6mm each layer, handles. item includes all necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.</p>	NO	6
8-11	<p><b>Rain Drainage pipes</b></p> <p>Supply and install Rain Drainage pipes with 2-inch white UPVC from the roof to the ground with all required fitting. Item includes C channel with at the end of the shade to collect the water, connections, fixing in the wall and all the necessary work to finish this item according to the technical specifications, drawings, and instruction of supervisor engineer or his representative</p>	L.m.	33
8-12	<p><b>Supply and install non-slipping ceramic floor tiles size 40x40x0.8 cm.</b> (Spain or equivalent) The price should include 2.5cm mortar bed and 5cm thick sand bed, cutting&amp; trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.</p>	m2	60
8-13	<p><b>skirting</b></p> <p>Supply and install Ceramic skirting(Spain-made or equivalent) with size 60x10*.8 cm for all walls the same kind and color of the floor tiles including smoothing the surfaces and edges as per specifications, drawings, and the engineer's instructions or his representative.</p>	L.m.	50
8-14	<p><b>Electrical work</b></p>		
8-14-1	<p>Supply, install, test and commission a complete socket outlet point (Hager or equivalent) with (2x4+1x2.5) sq.mm, And (2x2.5+1x2.5) according to drawings of SDB plan, trunky (Legrand or equivalent) insulated multistrand copper conductor cable(Saudi cable or equivalent) , PVC pipe including all conductors, cables, drilling, conduits, boxes, make opening in the walls, labeling. Socket outlets and all connections between the appropriate distribution boards and the socket outlet or power connection point for the following:</p>	Note	
8-14-1-1	<p><b>2P+E DUPLEX SOCKET (13A-220V) (Hager or equivalent)</b></p>	No.	7
8-14-2	<p>Supply install, test and commission complete LED lighting. Color temperatures (CCT) shall be at least 6500 K (White LED), lamp Luminous Flux shall be at least 1400 lum, input voltage 240V, Lamp Luminous Efficiency (lm/w) shall be at least 90%. IP20, Operation Temperature shall be 20°C to 50°C. Working Lifetime shall be at least 30000 h. Warranty shall be 2 Years, and be certified from CE, RoHS, SASO, UL. Temperature rise not greater than 20 degrees centigrade.</p> <p>The lighting fixtures shall be with 2x2.5+1X2.5 sq. mm PVC insulated multistrand copper conductor cable(Saudi cable or equivalent) in recessed 25mm dia PVC pipe, including all connections, suspension, clamps, switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications for the following:</p>	Note	
8-14-2-1	<p>Supply, install, connect and test tube LED lighting fixing on the wall fixture with 2x 18W lamp,</p>	No.	7
8-14-3	<p><b>AC 1 ton:</b></p> <p>Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 1 Ton, item includes cable with 2C X 2.5 mm +2.5mm Saudi from the SDB to each unit, switch with 13 A, PVC pipes, fittings, trunky (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level , water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.</p>	No.	2
8-14-4	<p><b>AC 1.5 ton:</b></p> <p>Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 1.5 Ton, item includes cable with 2C X 4 mm+1*2.5 Saudi from the SDB to each unit, switch with 16 A, PVC pipes, fittings, trunky (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level with , water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.</p>	No.	1
9	<p><b>maintenance work for the terrace</b></p>		
9-1	<p><b>Demolition Work:</b></p> <p>Demolish work for the floor tiles, steel handrail concrete on the top of the existing door, steel ladder. Item include fixing the cracks in the external wall and under the handrail, by using epoxy material, removing all remaining obstacles such as soil, concrete, stones, .... etc. (Site visit necessary) to prepare the site to start the construction of the project. all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, and all the necessary work to finish this item as per specifications and directed by the engineer.</p>	lump.	1
9-2	<p><b>Supply and make external plastering 20 mm thick for walls</b> using sulphates resisting cement with four faces: the first is the rough nail rendering (mix 1:1) cement: sand, the second is 5mm thick mortar (mix1: 2) cement: sand, the third is the undercoat 13mm (mix 1: 3) cement: sand, the forth is make Finishing Coat, smooth surface with (1:1) cement: sand mortar. and all this is according to specifications, drawings and supervisor engineer's instructions</p>	2 m	55
9-3	<p><b>Supply materials and make anti humidity and water proof emulsion paint for external walls</b> , sanding, priming, putty, under coat, and finishing coats ta least three layers, all according to Drawings, Specifications and instructions of the Engineer. The price should include preparing surface, clean, remove dust.</p>	m <sup>2</sup>	55

9-4	<b>Supply and install non-slipping ceramic floor tiles size 40×40×0.8 cm.</b> (Spain or equivalent) The price should include 2.5cm mortar bed and 5cm thick sand bed, cutting & trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.	m2	15.4
9-5	<b>skirting</b> Supply and install Ceramic skirting(Spain-made or equivalent) with size 60x10*.8 cm for all walls the same kind and color of the floor tiles including smoothing the surfaces and edges as per specifications, drawings, and the engineer's instructions or his representative.	No.	25
9-6	<b>Rain Drainage pipes</b> Supply and install Rain Drainage pipes with 2-inch white UPVC from the roof to the ground with all required fitting. Item includes make a hole in the balcony, remove the old pipe, connections, fixing in the wall and all the necessary work to finish this item according to the technical specifications, drawings, and instruction of supervisor engineer or his representative	L.m.	9
9-7	<b>Handrails</b> supply and install Stainless steel handrails for the balcony. The horizontal and vertical pipes are with 2 inches in diameter and 3 mm in thickness and three pipes horizontal with .5 in . the height is 1.30 m.Item includes fixing, polishing, grouting .... etc., and all required work to finish this item according to drawings, technical specifications, and instructions of the supervising engineer	L.m.	14
9-8	<b>Steel Ladder</b> Supply and install Vertical galvanize steel ladder to connect first-floor up to final roof with width 80 cm length 600cm , steel ASTM 360, stringer with Dia 2 in with 3 mm thickness, runners with Dia 1 in each 25 cm, supporting each 100cm, cage with width 90 cm and length 500cm , hoops and straps with Dia 0.75 in , Extended height 100 cm from top rung. Item includes welding, sandpapering, painting with waterproof painting, all the pipes should be rough, fixing on walls, and all accessories and all civil work such as, as per drawings to complete the work as specifications and engineer directions.	No.	1
<b>10</b>	<b>Installation of new bathrooms</b>		
10-1	<b>Demolition Work:</b> Demolish work for the floor tiles , wall tiles bathroom, wall inside the bathroom. Item include removing all the equipment and canceling the existing sewage system and water supply, canceling all the electrical wire and sockets and moving the electrical switches to be far away, removing all remaining obstacles such as soil, concrete, stones, .... etc. (Site visit necessary) to prepare the site to start the construction of the project. all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, and all the necessary work to finish this item as per specifications and directed by the engineer.	lump	1
10-2	<b>Floor Trap:</b> Supply and fix floor trap (100mm diameter, 2.5mm thickness for the bathroom) complete with concrete protection and heavy-duty brass grating. Item includes drainage piping to main pipe, T connection, fitting , make an opening in the external wall, closing this opening with plaster, all civil works, and all the necessary work to finish this item according to the technical specifications, drawings, and instruction of supervisor engineer or his representative.	No.	3
10-3	<b>Sewerage UPVC Pipes with 4 in Dia ( main pipe)</b> Supply, install, testing and commissioning of the UPVC (5.5mm Thickness) 4 inch waste water drainage including, pipe fittings, connection to drainage manhole and up to the roof as ventilation, pipe ventilation at the roof required sleeves and all necessary accessories as per drawings, specifications and related E96:F98codes.	L.m.	25
10-4	<b>Western Toilet:</b> Supply and install a western toilet( Italian or equivalent first type ). Item includes mounted floor, white color, Porcelain, siphon jet water closet/toilet with an elongated bowl, seat with open front and checks hinges, and all necessary accessories such as a capacity cistern, valves, fittings, 13mm stop angle valves, chrome plated 13mm hose, heavy duty, connecting water supply pipes and sewerage networks and make an opening in the external wall, all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	3
10-5	<b>Stainless Steel hand-held sprayer head:</b> Supply and fix Stainless Steel hand-held sprayer head. Item includes 7/8" T-Valve adapter, 4ft flexible reinforced stainless steel hose, metal hook angle valves, connecting water supply pipes and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	3
10-6	<b>Water Tap:</b> supply and install water tap in the bathroom. Item includes connecting to the water system, pipe nipples, nuts according to technical specifications, drawings and instructions of supervisor engineer	No.	3
10-7	<b>Hand Wash Basin:</b> Supply and fix hand wash basin( Italian or equivalent first type ) Complete with, waste fittings, plug, water mixer (hot and cold), soap holder, and 2" drainage pipe to floor trap, necessary water connection, all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	3
10-8	<b>Suction Fan:</b> Providing and fixing suction fan with 20 cm dia item includes cable with 2* 1.5 mm,PVC conduit, trunky, socket, switch, and all the requirement to finish this item according to technical specification and instruction of supervisor engineer.	No.	2
10-9	<b>Stainless Toilet Paper Holder:</b> Providing and fixing stainless toilet paper holder fixed in position by means of C.P. screws and rawl plugs embedded in the walls complete including cutting and making good the walls wherever required.	No.	3
10-10	<b>Mirror:</b> Supply and install Mirror wall paneling above the wash basin with 1/4 " thickness. It consists of thick beveled mirror with 3" etching on all four sides of the mirror, shelf. Edges to be polished & mirror to be fixed in the wall on SS mirror screws, the contractor should submit a sample before implemented the work and all the requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	3
10-11	<b>Shower:</b> Supply and install shower size ( 80 cm * 80cm ) in the bathrooms with all accessories: (shower tray ,shower ,mixers) items includes hose, stand, glazed fire clay soap holder, all needed fittings, pipes, and connections to water and all the required works such as connecting water supply pipes , sewerage pipe , all the required works to finish this item according to technical specifications and instructions of supervisor engineer.	No.	1
10-12	<b>Shower:</b> Supply and install shower size ( 90 cm * 90cm ) in the bathrooms with all accessories: (shower tray ,shower ,mixers) items includes hose, stand, glazed fire clay soap holder, all needed fittings, pipes, and connections to water and all the required works such as connecting water supply pipes , sewerage pipe , all the required works to finish this item according to technical specifications and instructions of supervisor engineer.	No.	2
10-13	<b>Water Supply Pipes</b> Supply and install Polyethylene pipes (hot and cold) (0.75") for water lines in order to connect the water to bathroom from the main tank on the roof, and connect mixer inside the bathroom . Item includes main valves, angle valves, cutting the walls, plastering, and repainting, make an opening in the external wall, fixing on the wall, fittings, pipe nipples, nuts, unions, brass fitting adapters as per specifications, drawings and supervisor engineer instructions.	L.m.	40
10-14	<b>Supply and install non-slipping ceramic floor tiles size 40×40×0.8 cm.</b> The price should include 2.5 cm mortar bed and 10 cm thick sand bed, cutting & trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.	m2	25

10-15	<b>Supply and fix non-slip color ceramic tiles (Spain-made or equivalent ), size 40x25x0.60cm for the walls of the bathroom.</b> The tiles shall be laid and fixed to the walls by approved grouting and adhesive materials. The price includes, Grouting, preparing the surface to fixed tiles and final polishing as per specifications, drawings and supervisor engineer's instructions or his representative. The color of the tiles shall be as chosen by the Engineer	m2	110
10-16	<b>Insulation :</b> Supply and install waterproof of bitumen rolls 5 mm thick in order to insulate the floor of the bathrooms. Item includes all necessary material to complete the works as shown in the drawings and as per manufacturer instructions and codes of practice and specifications and engineer's instructions.	m2	25
10-17	<b>Duct :</b> Supply and install duct with fabricated mad stainless steel in the bathroom wall one line with 25*2 ,The price includes air push fan(COMEX) with 30 Dia, dampers, filter, joint to connect the ducts, demolition of the wall for the duct, waterproof switch, Pvc pipe, cable with 2.50 mm x 4, conduit, fittings, and all the requirement to finish this item as per specifications, drawings and supervisor engineer's instructions or his representative.	Lump	1
10-18	<b>water heater</b> Supply and install electrical water heater of capacity 50 liter with automatic thermostat. Item includes all necessary valves, electrical connections, cables and all other fittings, wiring, electrical work, socket with 20 A, connecting to the SDB, and accessories as per drawings and specifications and engineer's instructions.	No.	3
10-19	<b>Aluminum door:</b> Supply and install Aluminum doors section 55 with width 0.80 m and 2.10 m height with 1.5mm special section . Item includes door frame, fixing in the walls each 15 cm, silicon sealant, supplying, workmanship, rubber, fixation, three hinges, locked, handles. Demolition the wall to make an opening for the door, canceling all the electrical wire and sockets and moving the electrical switches to be far away, plastering repainting, canceling all the pipes inside bathroom. All necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	No.	3
11	<b>Installation of a new kitchen</b>		
11-1	<b>Demolition Work:</b> Demolish work for the floor tiles. Item include removing all remaining obstacles such as wood, block, concrete, stones, .... etc. (Site visit necessary) to prepare the site to start the construction of the project. canceling all the electrical wire and sockets and moving the electrical switches to be far away, all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, and all the necessary work to finish this item as per specifications and directed by the engineer.	lump.	1
11-2	<b>Water Supply Pipes</b> Supply and install Polyethylene pipes (hot and cold) (0.75") for water lines in order to connect the water to kitchen from the main tank on the roof, and connect mixer inside the kitchen. Item includes main valves, angle valves, cutting the walls, plastering, and repainting, make an opening in the external wall, fixing on the wall, fittings, pipe nipples, nuts, unions, brass fitting adapters as per specifications, drawings and supervisor engineer instructions.	L.m.	21
11-3	<b>Sewerage UPVC Pipes with 4 in Dia ( main pipe)</b> Supply, install, testing and commissioning of the UPVC (5.5mm Thickness) 4 inch waste water drainage including, pipe fittings, connection to drainage manhole and up to the roof as ventilation, pipe ventilation at the roof required sleeves and all necessary accessories as per drawings, specifications and related E96:F98codes.	L.m.	10
11-4	<b>Floor Trap:</b> Supply and fix floor trap (100mm diameter, 2.5mm thickness for the kitchen) complete with concrete protection and heavy-duty brass grating. Item includes drainage piping to main pipe, T connection, fitting , make an opening in the external wall, closing this opening with plaster, all civil works, and all the necessary work to finish this item according to the technical specifications, drawings, and instruction of supervisor engineer or his representative.	No.	1
11-5	<b>Sink.</b> Supply, install, testing and commissioning of, double compartment stainless steel sink. Item includes chrome plated mixer, retractable hose, waste outlet, tail pieces, PVC pipe to connected with a trap with 2 in. It shall be provided with pre-punched fixture center hole, integral back ledge to accommodate deck-mounted fixtures, and fixing on the wall, and all the requirement to finish this item according to specifications and engineer direction.	NO	1
11-6	<b>Duct :</b> Supply and install duct with fabricated mad stainless steel in the bathroom wall one line with 25*2 ,The price includes air push fan(COMEX) with 30 Dia, dampers, filter, joint to connect the ducts, demolition of the wall for the duct, waterproof switch, Pvc pipe, cable with 2.50 mm x 4, conduit, fittings, and all the requirement to finish this item as per specifications, drawings and supervisor engineer's instructions or his representative.	Lump	1
11-7	<b>Supply and install non-slipping ceramic floor tiles size 40x40x0.8 cm.</b> The price should include 2.5 cm mortar bed and 10 cm thick sand bed, cutting& trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.	2 m	9
11-8	<b>Supply and fix non-slip color ceramic tiles (Spain-made or equivalent ), size 40x25x0.60cm for the walls of the kitchen .</b> The tiles shall be laid and fixed to the walls by approved grouting and adhesive materials. The price includes, Grouting, preparing the surface to fixed tiles and final polishing as per specifications, drawings and supervisor engineer's instructions or his representative. The color of the tiles shall be as chosen by the Engineer	2 m	34
11-9	<b>Insulation:</b> Supply and install waterproof of bitumen rolls 5 mm thick in order to insulate the floor of the kitchen. Item includes all necessary material to complete the works as shown in the drawings and as per manufacturer instructions and codes of practice and specifications and engineer's instructions.	m2	9
11-10	<b>Aluminum door:</b> Supply and install Aluminum doors section 55 with width 0.80 m and 2.10 m height with 1.5mm special section . Item includes door frame, fixing in the walls each 15 cm, silicon sealant, supplying, workmanship, rubber, fixation, three hinges, locked, handles. Demolition the wall to make an opening for the door, canceling all the electrical wire and sockets and moving the electrical switches to be far away, plastering repainting, canceling all the pipes inside bathroom. All necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	No.	1
12	<b>Maintenance work for the existing bathroom</b>		
12-1	<b>Western Toilet:</b> Remove the old western toilet which is broken then Supply and install a western toilet( Italian or equivalent first type ). Item includes mounted floor, white color, Porcelain, siphon jet water closet/toilet with an elongated bowl, seat with open front and checks hinges, and all necessary accessories such as a capacity cistern, valves, fittings, 13mm stop angle valves, chrome plated 13mm hose, heavy duty, and all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	NO	1
12-2	<b>Bidet :</b> supply and install toilet Bidet ( Italian or equivalent first type ). Item includes water mixer, and all necessary accessories such as valves, fittings, 13mm stop angle valves, chrome plated 13mm hose, heavy duty, connecting water supply pipes and sewerage networks and all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	1
12-3	<b>Mirror:</b> Supply and install Mirror wall paneling above the wash basin with 1/4 " thickness. It consists of thick beveled mirror with 3" etching on all four sides of the mirror, shelf. Edges to be polished & mirror to be fixed in the wall on SS mirror screws, the contractor should submit a sample before implemented the work and all the requirements to finish this item according to drawings, specifications, and engineer's instructions.	No	2

12-4	<b>Stainless Toilet Paper Holder:</b> Providing and fixing stainless toilet paper holder fixed in position by means of C.P. screws and rawl plugs embedded in the walls complete including cutting and making good the walls wherever required.	NO	1
12-5	<b>Maintenance for the shower cabinet :</b> Maintenance for shower cabinet inside the bathroom. Item includes fixing the door of the cabinet, water stopper, silicon repairing the rusted spot in it using special chemical material, then paint it using water proof painting on the spot, changing the damaged and rusted of the following: mixer, shower, drain, isolation valve, waste outlet, flexible and installation of water stopper, and all the required work to finish this item as per specifications, conditions and direct instructions by the Engineer or his representative.	No.	1
12-6	<b>Suction Fan:</b> Providing and fixing suction fan with 20 cm dia item includes cable with 2* 1.5 mm+2.5,PVC conduit, trunky, socket, switch and all the requirement to finish this item according to technical specification and instruction of supervisor engineer.	No.	1
12-7	<b>Water Tap:</b> supply and install water tap in the bathrooms. Item includes connecting to the water system, pipe nipples, nuts according to technical specifications, drawings and instructions of supervisor engineer	No.	1
12-8	<b>Stainless Steel hand-held sprayer head:</b> Supply and fix Stainless Steel hand-held sprayer head. Item includes 7/8" T-Valve adapter, 4ft flexible reinforced stainless steel hose, metal hook angle valves, connecting water supply pipes and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	1
12-9	<b>water stopper:</b> Supply and install 40mm Diameter water stopper with an adjustable pin for each washing basin. The color is chrome, and all the requirement to finish this item	No.	2
12-10	<b>Floor Trap Cover:</b> supply and install floor trap cover in the bathrooms. The size the same the existing according to drawings and instructions of supervisor engineer	No.	1
12-11	<b>Shower head with mixer and handheld shower:</b> Supply and install a shower head with mixer, and handheld shower in the bathroom. Item includes flexible stainless steel hose length with 72 in, showerhead spray with 5 functions, connecting to the water system, color chrome, and according to technical specifications, drawings and instructions of supervisor engineer	No.	1
12-12	<b>Hand Wash Basin:</b> Supply and fix hand wash basin( Italian or equivalent first type ) Complete with, waste fittings, plug, water mixer (hot and cold), soap holder, necessary water connection, maintenance for the wooden cabinet, all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	2
<b>13</b>	<b>Installation of a laundry room</b>		
13-1	<b>Demolition Work:</b> Demolish work for the floor tiles and wooden shelf inside. Item include removing all remaining obstacles such as wood, block, concrete, stones, .... etc. (Site visit necessary) to prepare the site to start the construction of the project. canceling socket with its wire, all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, and all the necessary work to finish this item as per specifications and directed by the engineer.	lump.	1
13-2	<b>Water Supply Pipes</b> Supply and install Polyethylene pipes (hot and cold) (0.75") for water lines in order to connect the water to kitchen from the main tank on the roof, and connect mixer inside the laundry. Item includes main valves, angle valves, cutting the walls, plastering, and repainting, make an opening in the external wall, fixing on the wall, fittings, pipe nipples, nuts, unions, brass fitting adapters as per specifications, drawings and supervisor engineer instructions.	L.m.	15
13-3	<b>Sewage Pipes</b> Supply and install Sewage Pipes 2 in for the washing machine drainage. Item includes connecting to the floor trap fittings, and connection to drainage manhole and up to the roof as ventilation, pipe ventilation at the roof , making an opening in the wall, plastering, pipe nipples, nuts, unions, brass fitting adapters as per specifications, drawings and supervisor engineer instructions.	No.	10
13-4	<b>Water Tap:</b> supply and install water tap in the bathroom. Item includes connecting to the water system, pipe nipples, nuts according to technical specifications, drawings and instructions of supervisor engineer	No.	2
13-5	<b>Floor Trap:</b> Supply and fix floor trap (100mm diameter, 2.5mm thickness for the laundry) complete with concrete protection and heavy-duty brass grating. Item includes drainage piping to main pipe, T connection, fitting , make an opening in the external wall, closing this opening with plaster, all civil works, and all the necessary work to finish this item according to the technical specifications, drawings, and instruction of supervisor engineer or his representative.	No.	1
13-6	<b>Suction Fan:</b> Providing and fixing suction fan with 20 cm dia item includes cable with 2* 1.5+2.5 mm,PVC conduit, trunky, socket, switch, and all the requirement to finish this item according to technical specification and instruction of supervisor engineer.	No.	1
13-7	<b>Supply and install non-slipping ceramic floor tiles size 40x40x0.8 cm.</b> The price should include 2.5 cm mortar bed and 10 cm thick sand bed, cutting& trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.	2 m	5
13-8	<b>Supply and fix non-slip color ceramic tiles (Spain-made or equivalent ) , size 40x25x0.60cm for the walls</b> of the kitchen .The tiles shall be laid and fixed to the walls by approved grouting and adhesive materials. The price includes, Grouting, preparing the surface to fixed tiles and final polishing as per specifications, drawings and supervisor engineer's instructions or his representative. The color of the tiles shall be as chosen by the Engineer	2 m	27.2
13-9	<b>Insulation:</b> Supply and install waterproof of bitumen rolls 5 mm thick in order to insulate the floor of the kitchen. Item includes all necessary material to complete the works as shown in the drawings and as per manufacturer instructions and codes of practice and specifications and engineer's instructions.	m2	5
13-10	<b>water heater</b> Supply and install electrical water heater of capacity 50 liter with automatic thermostat. Item includes all necessary valves, electrical connections, cables and all other fittings, wiring, electrical work, socket with 20 A, connecting to the SDB, and accessories as per drawings and specifications and engineer's instructions.	No.	1
<b>III</b>	<b>Site plan</b>		
<b>14</b>	<b>Two bathrooms</b>		
14-1	<b>Demolition Work:</b> Demolish work for the existing bathrooms and roof. Item include removing all the equipment and canceling the existing sewage system and water supply, canceling all the electrical wire and sockets and moving the electrical switches to be far away, removing all remaining obstacles such as soil, concrete, stones, .... etc. (Site visit necessary) to prepare the site to start the construction of the project. all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, and all the necessary work to finish this item as per specifications and directed by the engineer.	lump	1

14-2	<b>Earthwork excavation:</b> Earthwork excavation for wall foundations in any kind of soil to the dimensions and levels shown in drawings. Item include scrapping off sidewalk, curb stone, cut asphalt layer. Price to include backfilling with excavated soil if suitable or substituting same with selected approved imported soil, and removal of extra and unsuitable soil. Back filling shall be on layers of 200 mm thick with watering and compacting to (95%) of MDD. The item includes Disposing surplus excavated soils outside the site.	m <sup>3</sup>	12.3
14-3	<b>Termites Repellent :</b> supply, implement, and paint special material termites repellent consist of ( Ursban herbicide + water) solution, the phase of implementation as following: at least spraying this solution twice with ratio 1 liter of herbicide per 50 liter pure water this coved 10 m square for beneath the Joam an under the plain concrete of the floor. Item includes spray this solution, then backfill with 10 cm of soil, adding oil for outside work , <del>backfill , snay second time of the solution , all materials , workmanshin &amp; tools , transporting , closing the holes , and all the</del>	m <sup>2</sup>	12.3
14-4	<b>Plain concrete using sulphates resisting cement:</b> Supply and Cast ready mix Concrete for the plain concrete foundation with size 60 cm width * 20 cm depth with a minimum cement content of 300 Kg per cubic meter and minimum steel bars 5 ø 10 / m in both directions. Price include all form works, removal of forms, insulation the foundation with polyethylene , cleaning of all exposed tie wires and rods, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	m <sup>3</sup>	2.5
14-5	<b>Base Stone Works :</b> Supply and Build base black "BASILTE" stone above plain concrete foundation up to design level using sulphates resisting cement 1:3in first class with 40 cm thickness. each layer of the stone is 15 cm thickness, the middle filling shall be 60% concrete and 40% stone. Stone material, size, and texturing shall be in accordance with Engineer's instructions and approval. including flexible expansion joint each 6 m, Cutting, shaping and building of stone shall be in straight angles, no twisting, distortion or uneven sizes shall be allowed. The price included any work to finish work as per specifications and workmanship recommendations.	m <sup>2</sup>	12.5
14-6	<b>Base Stone Works as cladding :</b> Supply and Build base black "BASILTE" stone to cover the ground beam with at least 10 cm thickness. item includes sulphates resisting cement . Stone material, size, and texturing shall be in accordance with Engineer's instructions and approval. including flexible expansion joint each 6 m, Cutting, shaping and building of stone shall be in straight angles, no twisting, distortion or uneven sizes shall be allowed. The price included any work to finish work as per specifications and workmanship recommendations.	m <sup>2</sup>	7
14-7	<b>Supply and cast reinforced concrete class(C28) using sulphates resisting cement for ground beam(20x50cm)</b> for the new wall foundation. Including cement , formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40) 3ø 16 top and 3ø 16 bottom, and 1ø 8 @ 200 mm for the stirrup, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. The price include surface leveling, making good the harmed surfaces and edges and all surface finishing as per specifications and workmanship recommendations. Preliminary installations for Electrical, plumbing and floor drainage in concrete, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m <sup>3</sup>	2.1
14-8	<b>Solid Block Works:</b> supply and install block building using solid blocks (size 20x20x40) for wall. Item includes lintel with 15 cm thickness; the length shall extend at least 20cm on both sides, block should be done using a cement mortar 1:3 cement-sand. The building should be balanced and interlinked. Price includes all associated works such as watering, materials, placing of approval blocks, workmanship, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m <sup>2</sup>	72
14-9	<b>Supply and cast reinforced concrete class(C28) using cement for beam(20x50cm).</b> Including cement , formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40) 3ø 16 top and 3ø 16 bottom, and 1ø 8 @ 200 mm for the stirrup, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. The price include surface leveling, making good the harmed surfaces and edges and all surface finishing as per specifications and workmanship recommendations. Preliminary installations for Electrical, plumbing and floor drainage in concrete, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m <sup>4</sup>	2.1
14-10	<b>Supply and cast reinforced concrete C28 using for solid slab of thickness 15 cm</b> including formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40), size and length as detailed in the drawings, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. Item include Preliminary installations for Electrical, plumbing and floor drainage in concrete slabs, beams, and any concrete elements wherever required. The price include surface leveling, finishing as per specifications and workmanship recommendations.	m <sup>3</sup>	2
14-11	<b>Supply and make external plastering 20 mm thick for walls</b> using sulphates resisting cement with four faces: the first is the rough nail rendering (mix 1:1) cement: sand, the second is 5mm thick mortar (mix1: 2) cement: sand, the third is the undercoat 13mm (mix 1: 3) cement: sand, the forth is make Finishing Coat, smooth surface with (1:1) cement: sand mortar. and all this is according to specifications, drawings and supervisor engineer's instructions	m <sup>2</sup>	68
14-12	<b>Supply and make internal plastering 12 mm thick for ceiling</b> using with two faces: the first is the rough nail rendering (mix 1:1) cement: sand, second layer 13mm: Base-Coat "Rendering" with (1:3) cement: sand mortar. Works include all materials needed to finish the works according to specifications, drawings and supervisor engineer's instructions	m <sup>2</sup>	14
14-13	<b>Supply materials and make anti humidity and water proof emulsion paint for external walls</b> , sanding, priming, putty, under coat, and finishing coats, all according to Drawings, Specifications and instructions of the Engineer. The price should include preparing surface, clean, remove dust.	m <sup>2</sup>	68
14-14	<b>Supply and apply two coats of water paints on ceiling.</b> Price shall include surface preparation, and putty.	m <sup>2</sup>	14
14-15	<b>INSULATION WORKS.</b> Supply and install waterproof (flex acrylic or equivalent) with four heavy layers of waterproof for the roof of the building. Item includes plain concrete for screed to roof slab, cast to falls not less than 3 cm thickness in drain point, rate to include lining and hunching 15x15cm with 45 degrees to the side of roof screed and parapet, cleaning , filling cracks with the epoxy material , fiber net coating layer after the second layer, joints overlapping, testing and all necessary material to complete the works as shown in the drawings and as per manufacturer instructions and codes of practice and specifications and engineer's instructions.	m <sup>2</sup>	14
14-16	Supply and install waterproof of bitumen rolls 5 mm thick in order to insulate the floor of the bathrooms. Item includes all necessary material to complete the works as shown in the drawings and as per manufacturer instructions and codes of practice and specifications and engineer's instructions.	m <sup>2</sup>	14
14-17	<b>Supply and install non-slipping ceramic floor tiles size 40x40x0.8 cm.</b> The price should include 2.5 cm mortar bed and 5 cm thick sand bed, cutting& trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.	m <sup>2</sup>	14
14-18	<b>Supply and fix non-slip color ceramic tiles (Spain-made or equivalent ) , size 40x25x0.60cm for the walls</b> of the bathroom. The tiles shall be laid and fixed to the walls by approved grouting and adhesive materials. The price includes, Grouting, preparing the surface to fixed tiles and final polishing as per specifications, drawings and supervisor engineer's instructions or his representative. The color of the tiles shall be as chosen by the Engineer	m <sup>2</sup>	68
14-19	<b>Aluminum windows:</b> Supply and install Aluminum windows width 0.80m and 1.0m height with 1.5mm special section . Item includes silicon sealant, supplying, workmanship, rubber, fixation, hinges, double glass 6mm each layer, handles. item includes all necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	NO	2

14-20	<b>Aluminum door:</b> Supply and install Aluminum doors section 55 with width 0.80 m and 2.10 m height with 1.5mm special section . Item includes door frame, fixing in the walls each 15 cm, silicon sealant, supplying, workmanship, rubber, fixation, three hinges, locked, handles. All necessary works are needed to be completed according to drawings, specifications, conditions and directed instructions by the engineer or his representative.	No	2
14-21	<b>Floor Trap:</b> Supply and fix floor trap (100mm diameter, 2.5mm thickness for the bathroom) complete with concrete protection and heavy-duty brass grating. Item includes drainage piping to main pipe, T connection, fitting , make an opening in the external wall, closing this opening with plaster, all civil works, and all the necessary work to finish this item according to the technical specifications, drawings, and instruction of supervisor engineer or his representative.	No.	2
14-22	<b>Sewerage UPVC Pipes with 4 in Dia ( main pipe)</b> Supply, install, testing and commissioning of the UPVC (5.5mm Thickness) 4 inch waste water drainage including, pipe fittings, connection to drainage manhole required sleeves and all necessary accessories as per drawings, specifications and related E96:F98codes.	L.m.	15
14-23	<b>Western Toilet:</b> Supply and install a western toilet( Italian or equivalent first type ). Item includes mounted floor, white color, Porcelain, siphon jet water closet/toilet with an elongated bowl, seat with open front and checks hinges, and all necessary accessories such as a capacity cistern, valves, fittings, 13mm stop angle valves, chrome plated 13mm hose, heavy duty, connecting water supply pipes and sewerage networks and make an opening in the external wall, all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	2
14-24	<b>Stainless Steel hand-held sprayer head:</b> Supply and fix Stainless Steel hand-held sprayer head. Item includes 7/8" T-Valve adapter, 4ft flexible reinforced stainless steel hose, metal hook angle valves, connecting water supply pipes and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	2
14-25	<b>Water Tap:</b> supply and install water tap in the bathroom. Item includes connecting to the water system, pipe nipples, nuts according to technical specifications, drawings and instructions of supervisor engineer	No.	2
14-26	<b>Hand Wash Basin:</b> Supply and fix hand wash basin( Italian or equivalent first type ) Complete with, waste fittings, plug, water mixer (hot and cold), soap holder, and 2" drainage pipe to floor trap, necessary water connection, all civil works and requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	2
14-27	<b>Suction Fan:</b> Providing and fixing suction fan with 20 cm dia item includes cable with 2* 1.5 mm+2.5,PVC conduit, trunky, socket, switch and all the requirement to finish this item according to technical specification and instruction of supervisor engineer.	No.	2
14-28	<b>Stainless Toilet Paper Holder:</b> Providing and fixing stainless toilet paper holder fixed in position by means of C.P. screws and rawl plugs embedded in the walls complete including cutting and making good the walls wherever required.	No.	2
14-29	<b>Mirror:</b> Supply and install Mirror wall paneling above the wash basin with 1/4 " thickness. It consists of thick beveled mirror with 3" etching on all four sides of the mirror, shelf . Edges to be polished & mirror to be fixed in the wall on SS mirror screws, the contractor should submit a sample before implemented the work and all the requirements to finish this item according to drawings, specifications, and engineer's instructions.	No.	2
14-30	<b>Shower:</b> Supply and install shower size ( 90 cm * 90cm ) in the bathrooms with all accessories: (shower tray ,shower ,mixers) items includes hose, stand, glazed fire clay soap holder, all needed fittings, pipes, and connections to water and all the required works such as connecting water supply pipes , sewerage pipe , all the required works to finish this item according to technical specifications and instructions of supervisor engineer.	No.	2
14-31	<b>Water Supply Pipes</b> Supply and install Polyethylene pipes (hot and cold) (0.75") for water lines in order to connect the water to bathroom from the main tank on the roof, and connect mixer inside the bathroom . Item includes main valves, angle valves, cutting the walls, plastering, and repainting, make an opening in the external wall, fixing on the wall, fittings, pipe nipples, nuts, unions, brass fitting adapters as per specifications, drawings and supervisor engineer instructions.	L.m.	20
14-32	<b>water heater</b> Supply and install electrical water heater of capacity 50 liter with automatic thermostat. Item includes all necessary valves, electrical connections, cables and all other fittings, wiring, electrical work, socket with 20 A, connecting to the SDB, and accessories as per drawings and specifications and engineer's instructions.	No.	1
15-1	<b>Caravan</b> Supply and install of Caravan from sandwich panel 8 cm thickness pressure 45 from the foam, with 1 door and 7 sliding aluminum windows special sections with double glass 6 mm according clear dimensions 10mx4m x3.50. Base frame are constructed of structural steel members of different profile welded together to give optimum rigidity to the floor, main beams 120x10cmx8 mm around the Caravan, L shape 5*5*3 as a beams and columns and for the frame of door and windows, rain shade on the top of the door, all caravan edge must be sandwich panel, and Steel tube with 100*50 mmx3 mm as secondary beams distributed each 50 cm, all steel parts must be coated by two layers of anti-rust coating and corrosion, six concrete foundation with 100 x 100 x 80 cm with 5 Ø 10 / m , marble stairs, and solid block wall under the main I beam with 60 cm height. Marble stairs in front of the door, insulating the caravan from inside no steel material will be shown. The floor first layer is steel sheet of 1.5 mm, then plywood layer of 18mm covered by packaging flog vinyl 2.5 mm. Item includes all civil works required, works under this item include all civil works required even if not mentioned explicitly in the bills of quantities. The cleaning and leveling the ground before the construction work, the caravan must sit on zero level with no slops. and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative. The contractor must be provide a sample of Sandwich Panel to adopted before implementation	No.	1
15-2	<b>Supply and install steel shade and Sand Bags barrier at Caravan at yard [4.5 m (width) x 10.5 m (long) x 4 m (height)] – actual dimensions must be taken from site before executing, the item includes:</b>		
15-2-1	Excavation works for, any type of soil (soft, rigid, and semi-rock), foundations of steel shade and generator with 70 cm depth, for the underground beams .This item includes backfill , lifting of all waste outside the site, watering ,compaction to obtain hard ground against subsidence, the compaction should not be less than 98% of MDD,and all necessary works to prepare the ground for foundations according to drawings , technical specifications and instruction of supervisor engineer.	m3	15.45
15-2-2	<b>Termites Repellent :</b> supply, implement, and paint special material termites repellent consist of ( Ursban herbicide + water) solution under each foundation and under the generator foundation, the phase of implementation as following: at least spraying this solution twice with ratio 1 liter of herbicide per 50 liter pure water this coved 10 m square for beneath the Joam an under the plain concrete of the floor. Item includes spray this solution, then backfill with 10 cm of soil, adding oil for outside work , backfill, spay second time of the solution, all materials, workmanship & tools, transporting, closing the holes, and all the requirements to finish this item according to as per manufacture instructions and codes of practice, and direct instructions by the Engineer	m2	3.85
15-2-3	supply and cast strip RC foundation 80x80cm and 60 cm depth with 5 Ø 14 @200 mm as a box. Item includes insulation with polyethylene, all form works and shuttering shall be new, steel reinforcement with Fy 280 Grade 40, vibrating, workmanship, sleeves, testing and providing test results certificates, storing and saving of samples, and curing concrete with 'f'c=30 Mpa, smooth face. All works must be in accordance with specifications, drawings and supervisor engineer instructions.	m3	2.55

15-2-4	Supply and install IPE 240 for the columns and beams with 12 m length , item includes base plate with 40 cm * 20 cm with 16 mm thickness , anchor bolt 4 x D 20 mm and 50 cm length, connection with hunch, cutting if it necessary, lifting, all steel parts must be coated by two layers of anti-rust coating and anti-moisture paint, grouting , two layers water proof painting , welding electrode, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	NO	3
15-2-5	Supply and install IPE 300 for the middle beam with 6 m length , item includes base plate with 40 cm * 20 cm with 16 mm thickness , anchor bolt 4 x D 20 mm and 50 cm length, connection with hunch, cutting if it necessary, lifting, all steel parts must be coated by two layers of anti-rust coating and anti-moisture paint, two layers water proof painting , welding electrode, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	NO	1
15-2-6	Supply and install IPE 160 for the secondary beams each 110 cm with 12m length, item includes cutting if it necessary, lifting, all steel parts must be coated by two layers of anti-rust coating and anti-moisture paint, two layers water proof painting , welding electrode, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	NO	8
15-2-7	Supply and install steel sheets ,made of cold rolled steel of 300 Mpa minimum strength conforming ASTM A366 , for the roof with 4 mm thickness item includes welding, above the secondary beam each every 50 cm, cutting if it necessary, lifting, all steel parts must be coated by two layers of anti-rust coating and anti-moisture paint, two layers water proof painting , welding electrode, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer	m2	63.6
15-2-8	supply and install sand bags from tarpaulin isolate heat and moisture above the felt layers with 10 cm. Item includes fine sand ,tarpaulin, waving, water proof tarpaulin under the sandbags, and all the required works to finish this item , according to drawings ,technical specifications and instructions the supervising engineer. The contractor should provide a sample before implementing the work	m2	63.6
<b>16</b>	<b>Maintenance for the room outside next to the emergency exit</b>		
16-1	<b>Demolition Work:</b> Demolish work for slab of the rooms. Item include removing all wooden temper and plate, remaining obstacles such as soil, concrete, stones, .... etc. (Site visit necessary) to prepare the site to start the construction of the project. all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, and all the necessary work to finish this item as per specifications and directed by the engineer.	lump	1
16-2	<b>Termites Repellent :</b> supply, implement, inject and paint special material termites repellent consist of ( Urzban herbicide + water) solution, the phase of implementation as following: excavation around the building, cutting the wall, make a hole in the floor at least 4 per msq , then at least spraying this solution at rate four sprayers per meter sq, it should be done using a 7.5 Cc herbicide per 1 liter of pure water, walls, wooden doors and floors of the rooms. Item includes excavation, spray, adding oil for outside work , backfill, all materials, workmanship & tools, transporting, closing the holes, and all the requirements to finish this item according to as per manufacture instructions and codes of practice, and direct instructions by the Engineer	lump.	1
16-3	<b>Supply and cast reinforced concrete class(C28) using cement for beam(20x50cm).</b> Including cement , formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40) 3ø 16 top and 3ø 16 bottom, and 1ø 8 @ 200 mm for the stirrup, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. The price include surface leveling, making good the harmed surfaces and edges and all surface finishing as per specifications and workmanship recommendations. Preliminary installations for Electrical, plumbing and floor drainage in concrete, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m3	2.2
16-4	<b>Supply and cast reinforced concrete C28 using for solid slab of thickness 15 cm</b> including formwork, placing, vibrating, shuttering, curing, complete as directed. The price includes Supplying reinforcement of (Grade 40), size and length as detailed in the drawings, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers. Item include Preliminary installations for Electrical, plumbing and floor drainage in concrete slabs, beams, and any concrete elements wherever required. The price include surface leveling, finishing as per specifications and workmanship recommendations.	m <sup>3</sup>	3.2
16-5	<b>INSULATION WORKS.</b> Supply and install waterproof (flex acrylic or equivalent) with four heavy layers of waterproof for the roof of the building. Item includes plain concrete for screed to roof slab, cast to falls not less than 3 cm thickness in drain point, rate to include lining and hunching 15x15cm with 45 degrees to the side of roof screed and parapet, cleaning , filling cracks with the epoxy material , fiber net coating layer after the second layer, joints overlapping, testing and all necessary material to complete the works as shown in the drawings and as per manufacturer instructions and codes of practice and specifications and engineer's instructions.	m <sup>2</sup>	25
16-6	<b>Supply and make internal plastering 12 mm thick for ceiling using</b> with two faces: the first is the rough nail rendering (mix 1:1)	m <sup>2</sup>	25
16-7	<b>Repainting in order to renewal the painting:</b> Supply and install first class painting for renewal internal walls, Acrylic painting the same the new one. Item shall include filling of all cracks, pores and openings or by using special materials by type of cracks before starting with paint, supply of all materials, scaffolds, workmanship & tools and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	m2	115
16-8	<b>Supply materials and make anti humidity and water proof emulsion paint for external walls</b> , sanding, priming, putty, under coat, and finishing coats, all according to Drawings, Specifications and instructions of the Engineer. The price should include preparing surface, clean, remove dust.	m <sup>2</sup>	115
16-9	<b>Supply and apply two coats of water paints on ceiling.</b> Price shall include surface preparation, and putty.	m <sup>2</sup>	25
16-10	<b>Supply and install non-slipping ceramic floor tiles size 40x40x0.8 cm.</b> The price should include 2.5 cm mortar bed and 5 cm thick sand bed, cutting& trimming around floor utilities opening. Item include all required finishing including Pointing, grouting, cleaning, and polishing ... etc. all according to Drawings, Specifications and instructions of the Engineer. The tiles be laid and fixed in patterns, style and forms as directed by the engineer. The type and color of the tiles shall be as chosen by the Engineer.	m2	25
16-11	<b>Wooden Door:</b> Supply and install a wooden door (meranti wood) for each office with size 80 x 210 cm*4.5 cm. Item includes a wooden frame with 4.5 cm thickness and width same as plastered wall thickness; color is as directed by engineer; door stops, workmanship, hangs, handles, sandpapering, painting, insulation against termites, locks and all necessary parts needed to complete the works are according to drawings, specifications, conditions and directed instructions by the Engineer or his representative.	No.	1
<b>17</b>	<b>Electrical Work</b>		
17-1	<b>Site SDB 1ø 100A</b> Supply, install, test and commission new secondary distribution boards (Hager or equivalent), complete with circuit breaker on incoming supply connection. The distribution boards shall be of metal-clad pattern complete with all circuit breakers, casing, busbar, protection equipment having sufficient connections for all circuit breakers, Fire resistance door for the panel, water proof , fixing on the wall, and all requirements to finish this item according specifications, drawings and codes of practice:	Note	
17-1-1	Sub-distribution board (SDB), 20 way outs	No.	1
17-1-2	MCB 100 Amp ,1P, 1ø. (Hager or equivalent))	No.	1
17-1-3	breaker class B with 16Amp,1P, 230 volt ,1ø. (Hager or equivalent)	No.	9
17-1-4	breaker class B with, 10Amp,1P, 230 volt ,1ø. (Hager or equivalent)	No.	7
17-1-5	breaker class B with,6Amp,1P, 230 volt ,1ø. spare (Hager or equivalent)	No.	2
	<b>SOCKETS AND POWER CONNECTIONS</b>		

17-2	Supply, install, test and commission a complete socket outlet point or power point with 3x2.5sq. mm and 2x4+1x2.5 and 2x6+2.5 sq.mm PVC insulated multistring copper conductor cable (Saudi cable or equivalent) in recessed 25mm dia PVC pipe, including all conductors, cables, conduits, boxes. Socket outlets and all connections between the appropriate distribution boards and the socket outlet or power connection point for the following:		
17-2-1	2P+E DUPLEX SOCKET (13A-220V) (Hager or equivalent)	NO	16
17-2-2	2P+E SINGLE SOCKET (13A-220V) water proof	NO	3
17-2-3	2P+E SINGLE SOCKET (16A-220V) water proof	NO	1
<b>A-LIGHTING FIXTURES:</b>			
17-3	Supply install, test and commission complete LED lighting. Color temperatures (CCT) shall be at least 5000 K (White LED), lamp Luminous Flux shall be at least 1500 lum, input voltage 240V, Lamp Luminous Efficiency (lm/w) shall be at least 90%. IP20, Operation Temperature shall be 20°C to 50°C. Working Lifetime shall be at least 20000 h. Warranty shall be 2 Years, and be certified from CE, RoHS, SASO, UL. Temperature rise not greater than 20 degrees centigrade. The lighting fixtures shall be with 3x2.5+1x2.5 sq. mm PVC insulated multistring copper conductor cable (Saudi cable or equivalent) in recessed 25mm dia PVC pipe, including all connections, suspension, clamps, switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications for the following:		
17-3-1	Supply, install, connect and test LED tube lighting fixing on the wall fixture with 1x 18W lamp,	NO	9
17-3-2	Supply, install, connect and test W.P ceiling mounted lighting fixture with 18W lamp	NO	6
17-3-3	Supply, install, connect and test W.P ceiling mounted lighting fixture with 18W lamp ( water proof)	NO	3
17-3-4	Supply, install, connect and test over the mirror LED with 5 W lamp,	NO	3
17-4	<b>AC 2 ton:</b> Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 2 Ton, item includes cable with 2C X 6 mm+1*2.5 Saudi from the SDB to each unit, switch with 20 A, PVC pipes, fittings, trunky (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level , water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.	No.	1
17-5	<b>AC 1.5 ton:</b> Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 1.5 Ton, item includes cable with 2C X 4 mm+1*2.5 Saudi from the SDB to each unit, switch with 16 A, PVC pipes, fittings, trunky (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level, water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.	No.	1
17-6	<b>AC 1 ton:</b> Supply, install, test and commission complete of heat/ cool split unit air conditioning (one outdoor-unit with one indoor-unit) cooling capacity 1 Ton, item includes cable with 2C X 2.5 mm +2.5mm Saudi from the SDB to each unit, switch with 13 A, PVC pipes, fittings, trunky (Legrand or equivalent), all the water pipes of the AC should be connected to the ground level, water proof box in each floor, fixing in the wall, make an opening in the wall to connect the outdoor unite with the indoor all the requirement to finish this item all accessories complete as required per drawings.	No.	5
17-7	<b>Providing and fixing suction fan</b> inside the bathroom with 20 cm dia item includes conduit, cable with 2x 1.5+1.5mm, switch, pipes, and all the requirement to finish this item	NO	3
17-8	<b>Ceiling Fan :</b> Installation, testing and commissioning of ceiling fan ( USHA Pakistan or equivalent ) with 70watt capacity. including wiring the down rods 45 cm, RLS PVC insulated, PVC conduit, copper conductor, trankey, cable with 2.5 mm+1.5 mm to connect to the SDB, including providing and fixing phenolic laminated sheet cover on the fan box , switches, and all other accessories necessary to provide a complete fitting with all terminals as shown on the drawings and specifications and instructions of the supervising engineer.	No.	3
17-9	<b>Cable to connect to MDB:</b> Supply , install , test , and commissioning of power cables to connect between the MDB TO Ground SDB : 600/1000/CU/PVC/PVC 3C*25mm the item shall include excavation in tiles/asphalt, compacted backfilling, PVC pipes, fittings, trunky (Legrand or equivalent). Including demolishing holes in concrete walls/ concrete flooring wherever required to lay down the cable in conduits with glands and cable terminations.... etc., according to drawings	L.m	50
<b>18 Sewage work</b>			
18-1	<b>Demolition Work:</b> Demolish work for the all floor tiles around the building. Item include removing all remaining obstacles such as soil, concrete, stones, .... etc. (Site visit necessary) to prepare the site to start the construction of the project. all debris shall be transported out of site to any unobjectionable place to be identified by the contractor at his own cost, and all the necessary work to finish this item as per specifications and directed by the engineer.	lump	1
18-2	<b>Termites Repellent :</b> supply, implement, inject and paint special material termites repellent consist of ( Urzban herbicide + water) solution, the phase of implementation as following: excavation around the building, cutting the wall, make a hole in the floor at least 4 per msq , then at least spraying this solution at rate four sprayers per meter sq., it should be done using a 7.5 Cc herbicide per 1 liter of pure water, walls, wooden doors and floors of the rooms. Item includes excavation, spray, adding oil for outside work , backfill, all materials, workmanship & tools, transporting, closing the holes, and all the requirements to finish this item according to as per manufacture instructions and codes of practice, and direct instructions by the Engineer	m2	100
18-3	<b>UPVC Pipe with 6 in Dia:</b> Supply, install, testing and commissioning of the UPVC (5.5mm Thickness) 6 inch for to connect between the manholes and waste water drainage ( approved quality). Item includes laying a small gravel (Helsen) with 5 cm under the pipes , excavation, backfilling, compacting , pipe fittings, required sleeves, slope , tools, and all the requirements to finish this item according to drawings, specifications, conditions and direct instructions by the Engineer or his representative.	L.m.	100
18-4	<b>Inspection Manholes:</b> Supply & implementation of Inspection room with 60 x 60 cm with net height 60 cm . Item includes implementation of solid block walls 20x20x40cm. plain Concrete for the manhole floor with 20cm thick concrete. implementation plastering with 20 mm thickness (three layers) by using sulphates resisting cement from inside and outside Supply and install fiber cover pressure resisting. and all the necessary work such as excavation, backfilling, compacting, testing, removing all obstacles and transport them outside the site, disposal of surplus earth and transport them outside the site,...etc., and all work to finish this item according the profession work, technical specifications, drawings, and instruction of supervisor engineer or his representative.	No.	12

18-5	<p><b>Inspection Manholes:</b>  Supply &amp; implementation of Inspection room with 80 x 80 cm with net height 60 cm . Item includes implementation of solid block walls 20x20x40cm.  plain Concrete for the manhole floor with 20cm thick concrete. implementation plastering with 20 mm thickness (three layers) by using sulphates resisting cement from inside and outside  Supply and install fiber cover pressure resisting.  and all the necessary work such as excavation, backfilling, compacting, testing, removing all obstacles and transport them outside the site, disposal of surplus earth and transport them outside the site,...etc., <b>The price shall be included connecting with public network with all permission</b>, and all work to finish this item according the profession work, technical specifications, drawings, and instruction of supervisor engineer or his representative.</p>	No.	4
18-6	<p><b>Interlock Tiles :</b>  Providing and laying 60 mm thick factory made cement concrete interlocking paver block of approved size, design &amp; shape, laid in required color and pattern over and including 20 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.</p>	m2	808
<b>Total cost</b>			