

CONSTRUCTION OF 2 NO CLASSROOM 2017/2018 WITHOUT CEILING

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|------|---|-----|------|------|--------|
| | <u>ELEMENT NO. 1</u> <u>SUBSTRUCTURE (PROVISIONAL)</u> | | | | |
| A | Excavating oversite to remove top vegetable soil average 150mm disposing on site average 50m from excavations | 227 | SM | | |
| B | Mass excavation to reduce level not exceeding 1.50m deep | 54 | CM | | |
| C | Excavate trenches in red soil to receive foundations not exceeding 1.50m deep starting from reduced level | 90 | CM | | |
| D | Ditto for column bases | 8 | CM | | |
| E | Extra over normal excavation for excavating in rock of any class | 4 | CM | | |
| F | Backfill and compact selected excavated materials in 150mm thick layers | 109 | CM | | |
| G | Load and cart away surplus excavated material | 95 | CM | | |
| H | Allow for keeping all excavations free from surface and ground water | | ITEM | | |
| J | Allow for planking and strutting to uphold sides of all excavations | | ITEM | | |
| K | Approved natural stone hard-core; depositing and compacting in 150mm thick layers, levelling | 52 | CM | | |
| L | 25mm thick stone dust or murrum blinding over hardcore | 145 | SM | | |
| M | Termidore 25 EC" insecticide treatment to hard-core beds and tops of foundation walls | 149 | SM | | |
| | <u>Concrete</u> | | | | |
| N | Plain concrete (1:4:8) in 50mm thick blinding under strip footings | 45 | SM | | |
| | <u>Vibrated reinforced concrete class 20/20 to:</u> | | | | |
| P | Foundations in trenches | 10 | CM | | |
| Q | 100mm thick horizontal ground slab | 28 | SM | | |
| R | 150 mm thick floor slab | 121 | SM | | |
| | CARRIED TO COLLECTION | | | | |

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|--------------------|---|-----|------|------|--------|
| | <u>Fabric mesh reinforcement 200mm laps</u> | | | | |
| A | Reference A1042 weighing 2.22kg per square metre | 178 | SM | | |
| | <u>Square twisted mild steel reinforcement Bars</u> | | | | |
| B | 8mm diameter bars | 108 | KG | | |
| C | 10mm diameter bars | 230 | KG | | |
| | <u>Sawn formwork to:</u> | | | | |
| D | Vertical side of foundations | 34 | SM | | |
| E | Edges of slab; 75 to 150mm wide | 76 | LM | | |
| | <u>Approved natural stonework, roughly squared in cement mortar (1:4):25mm wide x20 gauge hoop iron strapping every alternate course</u> | | | | |
| F | 200mm thick walls | 92 | SM | | |
| G | Extra fpr attached pier 400x200mm | 14 | LM | | |
| | <u>500 gauge polythene; 150mm laps</u> | | | | |
| H | Damp proofing membrane; horizontal | 178 | SM | | |
| | <u>Cement and sand (1:4) rendering as described</u> | | | | |
| J | 12mm thick, two coatwork to walls steel trowelled | 20 | SM | | |
| | <u>Painting and Decorations</u> | | | | |
| K | Prepare prime and apply three coats of black bituminous paint to rendered surface externally | 20 | SM | | |
| | CARRIED TO COLLECTION | | | | |
| | COLLECTION | | | | |
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| | above 2/2 | | | | |
| CARRIED TO SUMMARY | | | | | |

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|--------------------|---|-----|------|------|--------|
| | <u>ELEMENT NO. 2</u> <u>REINFORCED CONCRETE FRAME</u> | | | | |
| A | Roof Beams | 4 | CM | | |
| | <u>Beams</u> <u>Reinforcement (All Provisional)</u> <u>Mild steel round reinforcement bars to BS 449 to</u> <u>structural concrete work</u> | | | | |
| B | 8mm diameter bars | 125 | KG | | |
| | <u>Square twisted mild steel reinforcement in</u> <u>structural concrete works</u> | | | | |
| C | 12mm diameter bars | 225 | KG | | |
| | <u>STEEL COLUMNS</u> <u>Sawn formwork as described to:</u> | | | | |
| D | Sides and soffites of Roof beams | 28 | SM | | |
| E | 75mmx2mm thick Circular Hollow Section (CHS) 2500mm long fixed with fish tail lugs to concrete floor slab | 8 | NO | | |
| | <u>Cement, Sand and Lime (1:2:) render as</u> <u>as describes to:-</u> | | | | |
| F | 15mm Thick to vertical surfaces of beams | 16 | SM | | |
| | <u>Prepare and apply three coats silk vinyl</u> <u>plastic emulsion paint as described on:-</u> | | | | |
| G | Plastered surfaces, internally and externally | 16 | SM | | |
| | <u>Galvanized mild steel Pipes</u> | | | | |
| H | 3000mm long, class B, 75mm diameter steel pipes, complete with concrete base, rate to include a fixing to ground | 9 | NO | | |
| | <u>Painting and Decoration</u> <u>Prepare surfaces and apply one coat of zinc</u> <u>chromate metal primer and two finishing coats of</u> <u>gloss oil paint on:</u> | | | | |
| J | Surface of large pipes | 22 | LM | | |
| CARRIED TO SUMMARY | | | | | |

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|------|--|-----|------|------|--------|
| | <u>EXTERNAL WALLING</u> | | | | |
| | <u>Machine cut natural quarry stone-work bedded and jointed in cement and sand (1:4) mortar as described in:-</u> | | | | |
| A | 150mm thick walls | 156 | SM | | |
| B | 150 mm thick gable walls | 24 | SM | | |
| | <u>Vent Blocks</u> | | | | |
| C | Provide, deliver to site and fix 200x200x25 mm thick pre-cast concrete vents jointed in 1:3 mortar | 16 | PRS | | |
| | <u>Damp Proofing</u> | | | | |
| D | 200mm wide hesian based damp proof course: 150mm laps | 54 | LM | | |
| E | Eaves filling to 200mm walls; 300 mm average height | 33 | LM | | |
| F | Raking cutting to 200mm thick wall | 29 | LM | | |
| | TOTAL ELEMENT NO. 3 WALL CARRIED TO SUMMARY | | | | |

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|------|--|-----|------|------|--------|
| | <u>ELEMENT NO. 4</u> | | | | |
| | <u>ROOF CONSTRUCTION, COVERINGS AND RAINWATER DISPOSAL</u> | | | | |
| | <u>Construction</u> | | | | |
| | <u>Truss joints to be bolted with appropriated No. of shear connectors or as instructed by Structural Engineer and hoisting approximately 3000mm above ground floor level</u> | | | | |
| | <u>All carpentry timber to be treated and sawn cypress second grade seasoned to an equilibrium moisture content of between 9% and 15%</u> | | | | |
| A | 100x50mm Wall plate bolted to concrete with and including 12mm diameter bolts at 1500mm centres | 36 | LM | | |
| B | 200x50mm Ridge Board | 20 | LM | | |
| | <u>The following in nailed timber trusses including hoisting and placing 2400mm above ground floor slab level</u> | | | | |
| C | 150x50mm Rafters | 156 | LM | | |
| D | Ditto, king post | 22 | LM | | |
| E | Ditto, Tie beam | 124 | LM | | |
| F | Ditto Struts and ties | 158 | LM | | |
| G | 75x50mm purlins | 120 | LM | | |
| H | 225mm x25mm Fascia and barge board | 58 | LM | | |
| J | 150x150 mm bearer top of circular hollow section | 20 | LM | | |
| | <u>ROOF COVERINGS</u> | | | | |
| J | 28 Gauge Prepainted galvanized IT4 iron roofing sheets nailed on purlins labour and material | 224 | SM | | |
| K | Ditto Ridge coppingg | 20 | LM | | |
| | CARRIED TO TOLLECTION | | | | |

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|------|---|-----|------|------|--------|
| | <u>RAINWATER DISPOSAL</u> | | | | |
| A | 150x120mm wide 22 gauge Prepainted galvanised mild steel purpose made box gutter | 40 | LM | | |
| B | Extra over gutter for stopped ends | 4 | NO | | |
| C | Ditto for rainwater outlets | 4 | NO | | |
| D | 100mmx22 gauge galvanized mild steel purpose made rainwater down pipe | 11 | LM | | |
| D | Extra over rainwater down pipe for swanek offset, projecting 600mm | 4 | NO | | |
| E | Ditto for shoes | 4 | NO | | |
| | <u>Painting and decoration</u> | | | | |
| | <u>Prepare surfaces and apply one coat of zinc chromate metal primer and two finishing coats of gloss oil paint on:-</u> | | | | |
| D | Surfaces of metal gutter 200-300mm girth | 40 | LM | | |
| E | Surfaces of large pipes | 11 | LM | | |
| | <u>Knot, prime, stop, prepare surfaces and apply one undercoat and two finishing coats of gloss oil paint on:</u> | | | | |
| F | General timber surfaces 200-300mm girth externally | 58 | LM | | |
| | CARRIED TO COLLECTION | | | | |
| | <u>COLLECTION</u> | | | | |
| | Page 2/5 above | | | | |
| | TOTAL ELEMENT NO. 4 CARRIED TO SUMMARY | | | | |

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|------|---|-----|------|------|--------|
| | ELEMENT NO. 5 | | | | |
| | MILD STEEL CASEMENT DOORS | | | | |
| | <u>Standard door complete with hinges, stays, fasteners permanent vent with mosquito gauze and sheet metal hood etc assembled and fixed to opening including cutting and pinning lugs to concrete or blockwork surround and bedding frame in cement and sand (1:4) mortar, Grille and glazing included, steel casement door comprising 40x25x3mm stiles, bottom and top rail & 4 No. intermediate rails all primed with red oxide.</u> | | | | |
| A | 2100x900mm door complete with 50x50x3mm fixed angle frame, 2.5mm thick black sheet checkered plate built into panels, top panels left open ffor glazing "Union" 3 lever steel door lock 3x200mm lockable tower bolts | 2 | NO | | |
| | <u>Iron mongery</u> | | | | |
| | <u>Supply and fix the following ironmongery with screws to match (Ref. is to Union Catalogue or other equal abd approved)</u> | | | | |
| B | Rubber door stop fixed to concrete floor or masonary walling with and including 38mm raw bolt | 2 | NO | | |
| | <u>Prepare and apply two undercoat and one finishing coat gloss paint in metak work</u> | | | | |
| C | General surfaces; steel casement doors | 10 | SM | | |
| | TOTAL ELEMENT NO. 5 CARRIED TO SUMMARY | | | | |

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|------|--|-----|------|------|--------|
| | <u>ELEMENT NO. 6</u> | | | | |
| | WINDOWS | | | | |
| | <u>Purpose made steel casement windows in 25mm wide standard casement 'z' sections comprising permanent ventilators with T-bar, gauze and metal hood for full width of window; all ironmongery and one coat red oxide primer by manufacturer.</u> | | | | |
| A | 1500x1500mm window | 8 | NO | | |
| B | 1500x900mm window | 6 | NO | | |
| | <u>Cill</u> | | | | |
| C | 100x150x15mm clay tile cills, bedding; jointing in cement mortar (1:4); pointing in coloured cement mortar (1:4) | 26 | LM | | |
| | <u>Glass and glazing to metal with glazing compound</u> | | | | |
| D | 4mm thick clear sheet glass 0.10 to 0.50 square metres | 26 | SM | | |
| | <u>Painting and Decoration</u> | | | | |
| E | Touching up manufacturer's priming coat, two undercoats and one finishing coat to glazed metal surfaces internally | 26 | SM | | |
| H | Ditto to glazed metal surfaces externally | 26 | SM | | |
| | TOTAL FOR ELEMENT NO. 6 WINDOWS CARRIED TO SUMMARY | | | | |

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|------|---|-----|------|------|--------|
| | <u>ELEMENT No. 7</u> <u>FINISHES</u> <u>EXTERNAL WALL FINISHES</u> | | | | |
| A | Extra over dressed stone walling Labour for forming recessed horizontal joints and flush vertical joints on walls in cement mortar (1:3) externally | 156 | SM | | |
| | <u>INTERNAL WALL FINISHES</u> <u>Cement and sand (1:2:9) plaster as describes in:-</u> | | | | |
| B | 15mm Thick to vertical surfaces | 156 | SM | | |
| C | Extra over for black board | 64 | SM | | |
| | <u>Prepare and apply three coats silk vinyl plastic emulsion paint as described on:-</u> | | | | |
| | <u>FLOOR FINISHES</u> <u>EXTERNAL FLOOR FINISHES</u> <u>Cement and sand (1:3) screed finished with Red Oxide as described in:-</u> | | | | |
| D | Floors 40mm thick, trowelled hard and smooth | 38 | SM | | |
| E | 20x100mm high skirting | 22 | LM | | |
| | <u>INTERNAL FINISHES</u> <u>Cement and sand (1:3) screed finished with Red Nil Oxide as described in:-</u> | | | | |
| F | Floors 32mm thick, trowelld hard and smooth | 134 | SM | | |
| G | 20x100mm high skirting | 64 | LM | | |
| | <u>CEILING FINISHES</u> <u>Sawn cypress, pressure impregnated as described in:-</u> | | | | |
| H | 50x50mm brandering | 0 | LM | | |
| J | 75X50 mm ditto plugging <u>Wrot cypress prime grade as described in:-</u> | 0 | LM | | |
| K | 75x25mm cornice with three labours; plugged | 0 | LM | | |
| L | 12mm thick 'celotex' ceiling lining with vee butt joints | 0 | SM | | |
| M | Extra for access panel size 600x600mm; including 50x50mm framing | 0 | NO | | |
| | <u>prepare and apply three coats silk vinyl plastic emulsion paint as described on :</u> | | | | |
| N | plastered surfaces | 156 | SM | | |
| | CARRIED TO COLLECTION | | | | |

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|------|--|-----|------|------|--------|
| | <u>Paved areas around Building Plinth</u> | | | | |
| A | 50mm thick in-situ concrete 600mm wide screeded with cement sand 1:4 mix steel trowelled hard and smooth | 22 | SM | | |
| | <u>External wall finishes</u> | | | | |
| B | 12 mm render mix (1:4) to gable walls | 13 | SM | | |
| C | Ditto to eaves | 16 | LM | | |
| D | Prime back of timber surfaces not exceeding 100 mm girth | 86 | LM | | |
| | <u>Painting and Decorations</u> | | | | |
| | <u>Prepare and apply three coats silk vinyl plastic emulsion paint as described on:-</u> | | | | |
| E | Soft board ceiling | 0 | SM | | |
| F | Ditto rendered | 29 | SM | | |
| | <u>prepare and apply three coats black board paint to</u> | | | | |
| G | plastered surfaces | 40 | SM | | |
| | <u>COLLECTION</u> | | | | |
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| | above | | | | |
| | TOTAL FOR ELEMENT NO. 7 CARRIED TO SUMMARY | | | | |

Electrification of ECD classes -Typical Twin classroom

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|------|--|-----|------|------|--------|
| 1 | <u>Supply ,install ,test and commission the following</u> lighting point wired in 3 x1.5 mm ² square single core pvc copper cables drawn in 20mm diamete HG PVC concealedbuilding fabric including all accessories but without lighting switches and fitting for one way switching | 16 | NO | | |
| 2 | 5A white included lighting switches as mk or approved equivalent i) 1 gang 1 way | 2 | NO | | |
| | ii) 2 gang 1 way | 2 | NO | | |
| 3 | Light fittings complete with lamps, fixing and final connections i) 1200mm, 1 x 36W single flourescent lighting fittings with opal diffuser for surface mounting as thorn or approved equivalent | 14 | NO | | |
| | ii)2.8 W flourescent bulk head fitting as thorn or approved equivalent | 2 | NO | | |
| 4 | power point wired in 3 x1.5 mm ² square single core pvc copper cables drawn in 20mm diamete HG PVC concealedbuilding fabric including all accessories | 4 | NO | | |
| 5 | 13A twin switched socket outlet plate ivory type as MK or approved equivalent | 4 | NO | | |
| 6 | Sub -main containing 3x6.0 sq mm sc PVC copper cable in concealed in 32mm diameter HG PVC condiut from the CLB to | 10 | M | | |
| 7 | 4 way SPN consumer unit complete with 100 A intergral isolator as Hager or equal and approved equivalent. | 1 | NO | | |
| 8 | MCB's as harvell or approved equivalent : i)5A | 2 | NO | | |
| | ii)30 A | 2 | NO | | |
| 9 | standard cable loop in box | 1 | NO | | |
| 10 | Earthing the cable loop in box | 1 | NO | | |
| | | | | | |

| ITEM | DESCRIPTION | QTY | UNIT | RATE | AMOUNT |
|---|--|-----|------|------|--------|
| | SUMMARY 2NO ECD CLASSROOM WITHOUT CEILING | | | | |
| A | SUBSTRUCTURE FROM PAGE 2/2 | | | | |
| B | REINFORCED CONCRETE FRAME FROM PAGE 2/3 | | | | |
| C | WALLING FROM PAGE 2/4 | | | | |
| D | ROOFING FROM PAGE 2/6 | | | | |
| E | DOORS FROM PAGE 2/7 | | | | |
| F | WINDOWS FROM PAGE 2/8 | | | | |
| G | FINISHES FROM PAGE 2/10 | | | | |
| H | ELECTRICAL INSTALAAATION FOR PAGE 2/11 | | | | |
| | Sub-Total 01 | | | | |
| J | fabricate and erect project name board in 50mm diameter 3mm thick steel pipes as per attached drawing | 1 | NO | | 20,000 |
| K | Sum of kenya Shillings Forty Thousand only for payment of transport costs of Engineer site supervisory staff | | SUM | | 40,000 |
| L | Sum of Kenya shillings Twenty Thousand only for Project Management | | SUM | | 20,000 |
| M | Sum of kenya Shillings Forty Thousand only for supply delivery ,installation and commissioning of 1 No.3000 litres rainwater plumbing water tank complete with concrete base pipe and 12mm pegrar bib tap (In No.1) | | SUM | | 40,000 |
| | SUB-TOTAL 02 | | | | |
| P | Add 16% V.A.T | | | | |
| GRAND TOTAL | | | | | |
| CARRIED TO FORM OF TENDER | | | | | |
| Contract Periodweeks Amount in words Tenderers Name Adress SignatureDate..... | | | | | |