



STATEMENT OF WORKS (SOW)

MAINTENANCE AND CONSTRUCTION SERVICES

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UNHCR, Lebanon

1. INTRODUCTION

The aim of this tender is to create a Frame Agreement for small construction works as requested by UNHCR. The selected Contractor will be on stand-by to provide these services with 24 hrs prior notice from UNHCR.

The Contractor's proposal is to cover all areas in Lebanon according to UNHCR needs.

1.1 General:

During implementation of the works, the contractor shall avoid disrupting activities in and around buildings. The contractor shall have access to the building, which he/she shall keep clean at all times.

The contractor shall adequately protect the existing building from damage while performing the required works. The contractor shall repair or be responsible for costs of repairing all damage during the implementation of the project.

It is the contractor's responsibility to ensure the safety of all personnel (around and within the Building) and contractor manpower at the building site.

The Contractor will inspect the site prior to submitting his offer. No allowance will be made to contractors who fail to correctly assess site conditions, ground conditions or any other factors particular to this site not mentioned in this specification which have an impact on the conduct of the works.

The contractor shall show examples of all materials to be used to the UNHCR representative and receive approval on the quality and color before using any materials.

2. SCOPE OF WORKS/ TECHNICAL SPECIFICATIONS.

The works covered by this agreement consist of:

- Site works
- Concrete works
- Painting works – external and internal painting
- Construction of the new gypsum board walls
- Doors – Supply, deliver, install, repair
- Windows – Supply, deliver, install, repair
- Suspended Ceilings
- Flooring – Supply, deliver and install
- Electrical works
- Plumbing items, door and window hardware

- Roof works
- Metal works
- Fencing and Bars

2.1 Site works:

Demolition

Reference: demolition and removal of the objects will be executed according to the exact plan, submitted to the contractor, by UNHCR representative.

Procedures of the demolition and material removed from the premises should be submitted before the beginning of works by the contractor. The materials should be removed from the site in a safe way, and disposed of in a designated area.

The work includes demolition and removal of all determined materials. No demolition is to start without contacting the UNHCR representative. All loose material acquired from the demolition, unless otherwise determined, is to be removed from the property. Waste is to be removed daily, unless otherwise advised moved daily should be stored in a designated area.

UNHCR assets/ materials damaged during the execution of works must be repaired or replaced with new ones by the contractor.

Site clearance, excavation and filling

Any areas disturbed by the contractor are to be restored to its previous condition.

Type of excavation

Mass excavation and backfilling may be executed by use of machines. Fine excavations should be implemented by hand.

Backfilling of roads and parking embankment

The Contractor shall obtain and use approved filling material from borrowed pits and material shall be clean and free from any objectionable matter. It will be the Contractor's responsibility to prevent material pollution due to excavation, transporting, loading and unloading, piling or any intermediate operation necessary for the execution of the work.

No separate payment will be considered by the Contractor for the use of water for earthwork operations. All water shall be considered as a subsidiary obligation to the Items in the Bill of Quantity.

Material shall be placed in successive layers of loose material not more than 30 cm in depth for the width as directed by the UNHCR Representative. After adjustment of the moisture content to that required to attain maximum density, the loose material shall be

compacted to obtain the required density. The borrow material or fill layers shall have a minimum density of 95%.

2.2 Concrete Works

Natural concrete:

Class C 12/15, (12 N/mm² compressive strength at 28 days) is to be placed over all excavations, which are to receive reinforced concrete cast "in situ" or pre-cast type.

Reinforced concrete structure:

Columns, beams, slabs shall be of concrete class C30 with $f_{ck} = 30$ N/mm² (characteristic compressive cylinder strength of concrete after 28 days), corresponding to Euro code 2 clause 3.1.2.

Reinforcement bars:

All kinds of reinforcement fulfilling the characteristics according to EN 10080 and Euro code 2 clause 3.2.1(5) are allowed.

For all structural elements, reinforcement shall be RA 400/500 steel with a characteristic yield strength $f_{yd} = 400$ Mpa and a characteristic tensile strength of $f_{tk} = 500$ Mpa. Only ribbed bars shall be used for structural elements. Smooth bars shall be GA 240/360 used for stirrups and some secondary elements. All anchoring of the reinforcement shall be according to Euro code 2, and Euro code 8. For the non bearing slabs (on the ground floor) is used mesh reinforcement MA 500/600.

End splice for reinforcing bars: end laps of reinforcing bars shall be not less than 40 bar diameters, unless otherwise indicated. The extension of the bars will be done through welding process.

Welded steel mesh:

Electrically welded steel wire fabric for concrete reinforcement. Unless otherwise indicated on the drawings, shall be 10 x 10 centimeters, 8 millimeters in diameter, for general construction.

Minimum one full mesh plus 5 centimeters overhang on each end, unless otherwise indicated.

Placing:

Do not place concrete when:

- (a) Weather conditions prevent proper placement and consolidation;
- (b) In uncovered areas during periods of precipitation; and
- (c) In standing water.

Prior to placing concrete, remove dirt, construction debris, water, snow, and ice from within the forms.

Consolidate concrete slabs greater than 10 centimeters in depth with high frequency, internal, mechanical vibrating equipment supplemented by hand spading and tamping.

Consolidate concrete slabs 10 centimeters or less in depth by hand rodding, tamping and spading.

Concrete Vibration:

Immediately after placing, each layer of concrete shall be vibrated using internal concrete vibrators supplemented by hand spading, rodding and tamping. Tamping or other external vibration of forms will not be permitted. Vibrators shall not be used to transport concrete inside forms.

Compressive Strength Tests:

The contractor is obliged to do the testing of the concrete cubes in the institution assigned by the supervising authority.

2.3 Painting works – External and Internal

2.3.1 External wall treatment – Facades

Mortars

The following type of mortars will be used in the building

Type A

Gauged Mortar with river washed sand free of fines and organic materials mixed in the ratio of cement: lime: sand = 1: 1: 5

Type B

Gauged Mortar with river washed sand free of fines and organic material mixed in the ratio of: cement: lime: sand = 1: 2: 5

Type C (for exterior cement skirting on wire lath and cement screed in toilettes)

Cement Mortar with clean sharp sand washed and free of fines and organic material mixed in the ratio of: cement: sand = 1: 3.

External painting:

Final Paint with Acrylic color, with crystal fluorine (Alphatex IQ-Sikkens type) or similar approved, applied in accordance with the manufacturer's instructions. The paint should enable wall breathing.

2.3.2 Internal wall treatment

Surface preparation: Remove dirt, splinters, loose particles, grease, oil, and other substances deleterious to coating performance

Wall painting

Internal painting: Emulsion Paint on plastered walls and ceilings shall be type Gammatex – Sikkens, Italy, or similar approved, applied in accordance with the manufacturer's instructions.

Application

Coating Application: Follow manufacturer's recommendations for surface preparation if primers or intermediate coats are allowed to dry longer than recommended by manufacturers of subsequent coatings. Each coat shall cover surface of preceding coat or surface completely and there shall be a visually perceptible difference in shades of successive coats.

Provide finished surfaces free from runs, drops, ridges, waves, laps, brush marks, and variations in colours.

2.4 Construction of the new gypsum partition walls

The gypsum board partition shall be installed in the referred place according to the drawings and UNHCR representative instructions.

The Contractor shall comply with gypsum board manufacturer's specifications and recommendations for construction of partition walls.

Works shall include labor, material, equipment and tools required in conjunction with the furnishing and installation of the gypsum partition walls.

The gypsum board partitions shall be standard partitions, utilizing Studs specified for non-load bearing partitions and use fast drywall construction techniques.

The gypsum partition wall shall be made of two layers 9.5mm minimum thickness plasterboards (two on each side of the partition).

Frame

Plasterboards shall be fixed to a galvanized steel frame structure (section type used for non-load bearing partition walls).

Perimeter Framing and vertical studs

Gypsum boards shall be fixed to a galvanized steel structure as follows:

Channels shall be used for the head and base of the partition. C-Studs should be used to form any abutments and to frame openings.

Partitions should always run up to the structural soffit. Where an existing suspended ceiling cannot be cut back to allow for partitioning, bracing must be provided for lateral support at the partition head.

The partition wall shall be constructed directly above prepared floor or surface concerned and channels shall be tied to the floor or walls by means of using sealant and galvanized or stainless steel screws.

Doorways

The head shall be formed with a galvanized steel Channel, bent back and screw fixed with galvanized steel screws to the studs. For doors weighing up to 50kg, Studs used for the frame openings shall be inserted with treated timber of 38mm thickness, cut to the size of the stud.

Jointing/Skimming

Plasterboards joints shall be staggered both vertically and horizontally.

A 2 to 5mm thickness skimming coat of board finish plaster shall be applied to the face of the gypsum board (on both sides of the partition wall). The board joints should be reinforced with appropriate tape (as per manufactured specifications).

Painting

Painting of the gypsum board partition wall shall be done on prepared surfaces, with mat emulsion washable paint type, 2 coats plus primer. The color of the paint should be approved by supervisor in charge of the project.

2.5 Doors**Wooden doors**

Doors shall be installed in the referred place according to the drawings.

Works shall include labor, material, equipment and tools required in conjunction with the installation of the wooden doors.

Doors type shall be wood doors with special frame and if required also option with glass windows.

Door shall be made of solid wood (bong). The frame and linings are to be built in conjunction with the wall. The architraves are to be timber and to be fixed to the door frame. Color of the doors shall be approved by UNHCR representative.

The door shall be installed with standard handle, lock (3 keys) and all appropriate hardware.

Aluminum external doors

Doors will be of aluminium with metal structure (Alumil Manufacturer) intermitted with plastic profiles for thermal insulation or similar approved.

Provide doors complete with necessary hardware, fastenings, clips, fins, anchors, glazing beads, and other accessories necessary for complete installation and proper operation and locks.

Hardware: The item, type, and functional characteristics shall be the manufacturer's standard for the particular window type. Doors should have a resistant padlock.

Fasteners and Anchors: Provide concealed anchors of the type recommended by the door manufacturer for the specific type of construction. Anchors and fasteners shall be compatible with the door and the adjoining construction.

Every door should contain a metallic profile (dim 20x40 mm) which will be anchored along the door perimeter.

All aluminium external doors should have thermal bridge intermission.

Internal aluminum doors:

Doors will be equipped with acoustic protection, fire resistant (30 minutes time of fire resistance of one wing doors by Alumil), or similar approved.

Provide doors complete with necessary hardware, fastenings, clips, fins, anchors, glazing beads, and other accessories necessary for complete installation and proper operation and locks.

Hardware: The item, type, and functional characteristics shall be the manufacturer's standard for the particular door type. Provide hardware of suitable design and of sufficient strength to perform the function for which it is used.

Fasteners and Anchors: Provide concealed anchors of the type recommended by the door manufacturer for the specific type of construction. Anchors and fasteners shall be compatible with the door and the adjoining construction.

Every door should contain a metallic profile (dim 20x40 mm) which will be anchored along the door perimeter.

PVC doors:

Doors will be of PVC – Thermoplastic type or can be proposed by the contractor but has to be approved by UNHCR representative.

Provide doors complete with necessary hardware, fastenings, clips, fins, anchors, glazing beads, and other accessories necessary for complete installation and proper operation and locks.

Hardware: The item, type, and functional characteristics shall be the manufacturer's standard for the particular door type. Provide hardware of suitable design and of sufficient strength to perform the function for which it is used. Equip all operating ventilators with a lock or latching device that can be secured from the inside.

Fasteners and Anchors: Provide concealed anchors of the type recommended by the door manufacturer for the specific type of construction. Anchors and fasteners shall be compatible with the door and the adjoining construction.

NOTE: All doors with locks should have three keys each, except toilet doors.

2.6 Windows:

Painting the wooden frame

Works shall include labour, material, equipment and tools required in conjunction with the painting of the required surfaces.

Prior of painting the wooden frame, clean the area, remove curtain rails and blinds etc, then wash the paintwork with sugar soap. Sand the surface before filling in any holes with appropriate filler. The filler needs to set before moving onto the next step.

Sand the whole surface to get it is as smooth as possible, as any flaws will show through the paint. Wipe the surface with a tack cloth to get rid of debris and dust.

Cover the edges of the glass pane with masking tape; take time to get this right, making sure there is no glass showing at the edge, and that the woodwork is not covered.

If painting a new window, or over old boldly coloured paintwork, paint a coat of primer over the surface, then follow with a top coat of your chosen colour (otherwise, two coats of paint).

2.7 Suspended ceiling.

Contractor/installers shall comply with ceiling manufacturer's specifications and recommendations for construction of the suspended ceiling.

Works shall include labor, material, equipment and tools required in conjunction with the furnishing and installation of the plasterboards partition walls.

Products

Lay-in panels and grid components for the suspension system shall be provided by a single manufacturer.

Deliver ceiling units to project site in original and unopened packages. Each carton of material (lay-in panels and suspension system) shall carry manufacturer's certifications that products comply with specified requirements including laboratory reports showing compliance with specified tests and standards (panel design, size, composition, color, and finish, suspension system component profiles and sizes, fire performance characteristics, including surface burning, flame spread, smoke developed ...).

Lay-in panels:

Lay in panels shall be made up of mineral fibers and shall be of dimension 60cm x 60cm. Surface texture shall be smooth, and color shall be white.

The edge profile of the panels shall be square to lay in the galvanized aluminum tees and beams profiles.

Suspension system:

The suspension system shall be a metal suspension system for lay-in panel ceilings.

All main beams and cross tees shall be commercial quality hot-dipped galvanized (galvanized steel, aluminum, or stainless steel). All exposed surfaces chemically cleansed, capping pre-finished galvanized steel (aluminum or stainless steel) in baked polyester white paint, unless another colour is required by UNHCR representative.

Do not proceed with installation until all wet work such as plastering painting and rendering of the walls has been completed and dried out. Building areas to receive suspended ceiling shall be free of construction dust and debris.

Material shall be carefully stored in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.

Before installing ceiling units, material shall be stored for not less than 24 hours on the space where they will be installed to permit them to reach the room temperature and stabilized moisture content.

2.8 Flooring works:

2.8.1 Laminate flooring

Contractor/installer shall comply with laminate floor manufacturer's specifications and recommendations for installation of laminate flooring.

The contractor shall provide workers trained and experienced in installation of laminate flooring.

Works shall include labor, material, equipment and tools required in conjunction with the furnishing and installation of the laminate floor.

In addition to the materials required for the completion of project, the contractor shall provide an additional 5% of total laminate installed, in original and unopened packages with brand name and type clearly marked (in case any damages on the floor have to be repaired in the future).

Products.

The laminate flooring shall be a tongue and groove interlocking flooring system that floats on top of the existing sub floor.

The backing shall be a thick layer of melamine to make sure that the back of the product is very stable.

A special polyurethane underlayment shall be laid down on the sub floor prior to the new laminate flooring being installed in order to prevent potential humidity from the sub floor to be in contact with the laminate and the glue from sticking to the sub floor during installation of the laminate.

An additional polyethylene plastic vapor barrier shall be applied on the sub floor in case of excess of humidity on the sub floor.

A bead of specially formulated, water-resistant, glue shall be placed between the tongue and grooves of every plank to hold the planks together and to prevent the moisture from penetrating the core.

Wall baseboard (skirting board) shall be used to provide transition from the laminate floor to the wall.

Execution.

Do not proceed with installation until all painting, rendering and ceiling works have been completed (and dried out). Building areas to receive laminate flooring shall be free of construction dust and debris.

Before installing laminate flooring, material shall be stored for not less than 24 hours on the space where they will be installed to permit them to reach the room temperature and stabilized moisture content and therefore to reduce expansion and contraction during installation.

Preparation

The sub floors must be sound, solid, cleaned and free of all oil, grease and dirt. If necessary, the sub floor shall be mechanically cleaned (use of solvents is not acceptable).

Substrates shall be inspected and corrected for moisture or any other conditions that could affect performance prior to installing the underlayment and the laminate floor covering (an additional polyethylene plastic vapor barrier shall be applied on the sub floor in case of excess of humidity on the sub floor).

Before installing laminate, the sub floor shall also be checked for any existing level unevenness and cracks. If any, the contractor shall rectify unevenness by laying a Portland cement-based underlayment (self-leveling underlayment concrete).

Any crack in the sub floor shall be repaired previous to level rectification (if this is needed).

The sub floor shall be swept and vacuumed before installation of the pad.

The underlayment shall be laid in such a way that edges don't overlap, and pieces shall be taped together to prevent them from shifting. Tape shall be a water impermeable (plastic) tape.

Cleaning after work:

Clean the floor, including trim, edge moldings at the end of the works. Cleaning shall be done in accordance with manufacturer recommendations.

2.8.2 Carpet floor:

Contractor/installer shall comply with carpet manufacturer's specifications and recommendations for installation of the carpet.

Works shall include labor, material, equipment and tools required in conjunction with the furnishing and installation of the carpet.

Products

Carpet to be laid on shall be made up of acrylic fiber with refined cut pile surface structure on extruded polyethylene foam of density 30-45/m3, and should be approved by the Project manager (a sample should be presented before the works).

Baseboards shall be made out of the same quality and color has to be approved by Project Manager. The dimension of the baseboard shall be of 10 cm height.

Preparation

Do not proceed with installation until all wet work such as plastering painting and rendering of the walls have been completed and dried out, as well as ceiling works has been completed. Building areas to receive carpet shall be free of construction dust and debris.

Carpet shall not be installed on surfaces that are unsuitable. Holes, cracks, depressions, or rough areas shall be repaired using material recommended by the carpet or adhesive manufacturer. Floor shall be free of any foreign materials and swept broom clean.

Installation

Carpet shall be installed with appropriated glue (as recommended by carpet manufacturer) and with a minimum of seams. Seams shall be regular, unnoticeable, and treated with appropriate seam adhesive. Cutouts, as at door jambs or ducts shall be neatly cut and fitted securely.

Surface to receive carpet baseboard must be clean and free from all dust, loose material, grease, etc...

2.8.3 Floor Tile

Prices of Tiles & Marble works shall include supply of all materials, testing, mortar under tiles or marble), skirting, workmanship, all according to drawings, specifications, conditions and directed instructions by the UNHCR representative.

The contractor has to provide minimum three examples to the UNHCR Representative with approximately the same price. The size, design and colour have to be approved by UNHCR Representative.

Installation

Unload, place and lay tiles by hand into position over neatly cement screed. A control joint shall be established with regard to structure location.

Tap the files firmly with a rubber mallet to neatly level fresh cement screed. All joints shall be used plastic spacer 2 – 3 mm.

Ensure not to allow water onto new tiling until bedding and jointing have completely set.

Ensure no traffic on flooring within 48 hours after completion.

Tiles with any chips, cracks or otherwise defective shall not be used for the work.

2.8.4 Wall Tile**Preparation**

Reconfirm the existing reference levels and position provided at site by UNHCR representative.

Ensure that the existing plaster walls are vertically straight and does not exceed the wall finishing level.

Installation

Shift the required tiles, ordinary, Portland cement and adhesive cement to the designated work area. Mix the cement and adhesive cement thoroughly with clean water. Apply the mortar to the back of tile and tap in into place at the required level position to the wall. Affix the remaining tiles ensuring a 2-3 mm spacer is used between tiles and wipe away the excessive slurry mortar that seeps out from the joint. Proceed the finish working area and allow a few hours for the tiles to set. Fill the wall tile joints with approved grout type and colour.

2.8.5 Marble flooring

Prices of Marble works shall include supply of all materials, testing, mortar under marble or back of marble (wall), skirting, and workmanship, according to the drawings, specifications, conditions and directed instructions by the UNHCR representative.

Installation

Make sure that the subfloor is completely flat and free of divots, defects, or bumps. Raised areas may need to be sanded down and dips may need to be repaired with filler. Getting the subfloor perfectly smooth is vital to the integrity of the entire floor installation, because any gap between surfaces will be a weak point that can lead to damage.

Mix thin set mortar according to the manufacturers instructions. The use of tile spacers between each piece will help you to keep grout lines sharp and consistent as well. It is inadvisable to step on a marble floor tile for at least 48 hours after installation.

When mixing grout make sure to follow all of the manufactures recommendations.

Use a large sponge that is slightly damp to gently wipe the surface of the marble tiles clean of any excess grout. As you work do not allow any moisture to seep down into the grout lines, as this can cause the mix to become muddy and washed out.

Allow the grout to dry for at least 4 hours.

2.8.6 Vinyl floors

Works shall include labour, material, equipment and tools required in conjunction with the furnishing and installation of the vinyl floor.

Installation

Resilient flooring should be installed only after all other construction works are finished. Vinyl floors can be installed over wood, concrete or, in some cases on the existing flooring. However, subflooring should be clean, smooth, of high quality and as flat as possible.

After installation, rolling loads and heavy traffic should be avoided until the adhesive sets hard. Plywood or hardboard panels must be used to move furniture, appliances or equipment onto a recently installed vinyl floor.

The room temperature of not less than (18.3 C) and no greater (29.4 C) for at least 48 hours previous to, during and 48 hours after installation or until flooring has become thoroughly bonded to the subfloor.

Flooring materials, adhesives and accessories should be at the same temperature as the air in the room. (In winter, flooring should be stored in a warm room for at least 48 hours before installation.)

2.8.7 Parquet floors

Works shall include labour, material, equipment and tools required in conjunction with the furnishing and installation of the parquet.

When installing parquet flooring, check the moisture of the sub -floor base, this has to be below 5%. The installation of the Parquet flooring has to be laid on a level surface. The parquet glue should be either a Bictchem based glue like f21 or a more modern glue like Sika which is a (ms polymer).

When gluing down try and make sure there are no gaps or if they are than fill the holes with resin and sawdust from the floor once sanded.

Once flooring is laid, sand floor, then mix the sawdust with resin and fill the whole floor twice. Clean the room and floor so no dust remains in and prepare the surface for paint.

Then roll on a primer, wait a few hours to dry then roll on a lacquer, leave over night to dry and cure. Finally scrim the floor in a fine grit sand paper or screen, clean properly and tack again, then apply the final coat of lacquer.

2.9 Electrical works

All supplied materials should be a class A, new, not used and free from any defects. The contractor's total price for electrical works as per BoQ shall include the supply, execution, completion and testing of the whole of electrical fixtures and related system in accordance with drawings or UNHCR representative instructions and specification.

The contractor must consider keeping the system running where needed during the whole construction project.

2.10 Plumbing items, door and window hardware

Sanitary Fixture and their Accessories:

All supplied materials should be a class A, new, not used and free from any defects. The contractor's total price for plumbing works as per BoQ shall include the supply, execution, completion and testing of the whole of fixtures and related system in accordance with drawings or UNHCR representative instructions and specification.

2.11 Metal Works

The contractor's total price for metal works as per BoQ shall include the supply, execution, completion of the installation in accordance with drawings or UNHCR representative instructions and specification.

Corrosion protection shall be applied by application of one coat of anti-corrosion solution. One coat of undercoat of a colour that closely matches the final top coat is required and then a top coat of alkyd resin based paint.

Colours to be as required by the UNHCR representative and there may be more than one colour on a single project.

2.12 Fencing and Bars

FENCING - refer to drawings STD/ F1, F2, F3

SLIDING GATE – refer to drawing 01

To manufacture, assemble and erect fences in welded steel components, including the supply and installation of concrete bases. The height of the fences may vary according to site specific conditions but the tenderer is to assume that the standard height will form the bulk of the works. Any change in height will be valued at 50% of pro-rata of the area change.

The main standards are to be set into concrete bases to the depth as indicated on the type drawing, but only after painting with anti-corrosion solution.

Should it be required that excavation for the bases is through difficult ground (rock or concrete) or that bases have to be larger than dimensioned on the type drawing, then consideration will be given for additional payment to the contractor.

All tube ends are to be capped with welded steel plates, or rubber or plastic stoppers of a durable construction.

Corrosion protection shall be provided by application of one coat of anti-corrosion solution, then one coat of undercoat of a colour that closely matches the final top coat, and then a top coat of alkyd resin based paint.

Colours to be as required by the individual Project Manager and there may be more than one colour on a single project.

Fence lines are to be horizontal with steps between panels as necessary to keep the ground clearance to a maximum of 150mm.

WINDOW BARS – refer to drawings STD/ WB1, WB2, WB3

To manufacture, assemble and install welded steel assemblies for the protection of windows from break-in.

The overall dimensions of the assemblies will vary according to the sizes of the windows to be treated.

The steelwork shall be ground smooth to remove all sharp edges and weld runs, and then the whole assembly shall be de-greased.

Corrosion protection shall be provided by application of one coat of anti-corrosion solution, then one coat of undercoat of a colour that closely matches the final top coat, and then a top coat of alkyd resin based paint.

Colours to be as required by the individual Project Manager and there may be more than one colour on a single project.

Fixing dowels are to be steel bar, painted with anti corrosion solution.

Grout for the fixing of the dowels shall be a lime: cement: sand mixture in the proportions of 2:1:4.

NOTE:

The method illustrated for fixing the frames to reveal masonry may not be achievable in all cases. Where it is required that the frames are to be fixed to the face of buildings then use zinc plated threaded rod in lieu of the 10mm dowels and fix these studs in the wall with polyester resin. (The frame will need to be drilled on the back of the angle not the side as the standard detail).

3. INSTRUCTIONS FOR TENDERERS.

3.1 General notes.

The potential Bidder shall be aware of the following information and will adhere to, any failure of these requirements may result in disqualification.

3.1.2 Qualification.

The bidder shall submit with the proposal, full documentation concerning the past experience as prime contractor for the similar works in terms of the size and the amount of the works to be performed.

3.1.3 Cost proposal.

The bidder on his quotation shall reflect all direct and indirect cost, Materials, Transport, Manpower, Local circumstance. The contractor bidder shall verify the Bill of Quantity and sign off as accepted. Further claim for missing quantity will not be accepted by UNHCR representative.

3.1.4 Warranty.

All works shall be warranted for 12 months, this liability will cover any and all construction defects arising during the operation period.

3.1.5 Time schedule.

The Works covered by this contract shall be completed within the approved estimated time to complete the works from the contract, as agreed with the UNHCR representative. Any delay in meeting the agreed works timeline may incur a penalty of 0.1% of the contract amount for each day overdue.

3.1.6. Handing over procedure.

The successful contractor 1 day before the completion date of any work has to provide an official notice to the UNHCR representative, who will inspect the works contract and issue a completion certificate, with associate Punch List to be fixed during the defects liability period.

3.1.7 Co-ordination.

The successful contractor will co-ordinate the site activities in conjunction with UNHCR representative, and he shall be responsible for safety of the site and ensuring that the current operation activity will remain open.

3.1.8 Material and equipment.

The materials supplied by the contractor are to be approved by the UNHCR representative prior to use/installation. Equipment to be used is also subject to a prior approval by UNHCR representative.

3.1.9 Health and Safety

The successful contractor will ensure that all works comply with local safety rules; the UNHCR representative has the right to suspend the works at any circumstance of unsafe situation, without any claim arising by the contractor.

4. TASK AND DUTY DEFINITIONS

UNHCR representative (Engineer): Is the appointed staff by UNHCR who will be at the site works permanently; he/she will monitor all activities and will report daily to UNHCR Administration for the work-progress. He/She will control the quality of work performed and has the authority to require any test e/or clarification from the contractor. He/She has the authority to ascertain the monthly statement of works done by the contractor. In case of any failure caused by the contractor in terms of quality performance the Engineer appointed has the authority to suspend the works without any further claim that may be raised by the contractor.

The successful contractor will have to provide the list of persons who will need access the UNHCR property during the works and also the vehicle plate number.