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1. ABOUT UNHCR

The Employer referred to by UNHCR.

UNHCR was established in 1950 by the United Nations General Assembly. UNHCR is mandated to lead and co-ordinate international action to protect refugees and resolve refugee problems worldwide. UNHCR's Headquarters is in Geneva, Switzerland.

Egypt is a signatory to the 1951 Refugee Convention and its 1967 Protocol. UNHCR in Egypt was established in 1954 under a Memorandum of Understanding (MoU) with the Government of Egypt. Under this MoU, UNHCR Egypt carries out the functional responsibilities for all aspects of registration, documentation and refugee status determination. UNHCR provides international protection and assistance to refugees, specifically to the most vulnerable.

UNHCR officially authorized building by the GoE is the Main Building in 6th of October city, the lease has been extended for the past fifteen years. The building houses the UNHCR reception center for the non-Syrians namely (African, Yemenis, Iraqis and other nationalities). The building does not allow for an appropriate reception as there is insufficient space for a waiting area, interview rooms and standoff from the street for safety. There are periodic demonstrations in front of the building leading to blocked roads and disorders.

Zamalek office and registration center is located in Zamalek district – UNHCR has leased the building from the Dioceses of Egypt, an Episcopal/Anglican Diocese, since March 2013. UNHCR is located within All Saints Cathedral complex in a fashionable central neighborhood of Cairo. The premises was leased in the wake of the Syria Emergency Operation and includes a reception areas where the Syrian caseload is processed.

RSD/T building is located in 6th October City – UNHCR has leased this four-story residential building in 2014. It remains sub-standard in terms of infrastructure and space despite several improvements over the years. Regular power cuts due to inadequate electrical system is the most critical problem. Individual meetings with resettlement cases are held in the offices of staff members due to the lack of reception facilities.

All 3 UNHCR buildings comprise a reception area and offices.

2. UNHCR CURRENT PREMISES ANALYSIS:

a. Space analysis (current vs required)

In the current premises the actual physical used spaces exceed the contractual spaces as the operational needs are constantly increasing to accommodate refugees, staff, filing and waiting/reception areas; accordingly almost all non-office spaces have been converted to be utilized for fulfilling the increasing office needs.

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b. Engineering concerns (issues, repairs required)

The UNHCR Cairo office premises is currently located in three buildings; specifically, one in Zamalek and two in 6th October City, for a total of approximately 5,400 square meters (on Contracts).

There is a need for UNHCR Cairo to move Zamalek Registration Center & RSD/T Buildings to one dedicated building to enhance operational cohesiveness, security, access for refugees and asylum seekers, amongst other advantages. Kindly note:

It is to the benefit of the country operation to consider consolidating staff and operation for better managerial oversight among the different units and functional areas to enhance operational cohesiveness, enhancing staff safety and security, access for refugees and asylum seekers, amongst other advantages.

c. The current buildings require extensive work to make them suitable for UNHCR needs (electrical, plumbing, etc).

- *Lack of Reliable Electrical system* – Electrical panel boards made for heavy loads, transformers & current stabilizer.
- *Lack of Central Cooling/Heating system* – with adequate heating & cooling capacity, air handling units of various capacities, coiling units, all with separate controls. Three varying velocity pumps and three constant velocity pumps.
- Lack of ICT/light current system – Fully raised floor server room.
- *Security* – Sprinklers fire-fighting systems, including underground water tanks and pumps.
  Lack of Office spaces, including but not limited to archives, meeting rooms, training rooms, reception waiting areas, etc.

3. Design Brief

2nd District Building

In September 2018, the Senior Admin/Finance Officer presented the Clinics building which was identified by UNHCR separately during site visits for a launched Request for Information June 29, 2018. The Representative and senior management have personally viewed the site and the Representative has endorsed the Premise Evaluation Committee's recommendations which has found the 2nd District Building desirable to host the RSD/T activities in addition to all Protection activities in Zamalek Registration Center. Should the operation opt for constructing an extra floor, the building will have the capacity to host all protection activities

UNHCR Cairo Operation has addressed the GoE in a formal letter for the purpose of obtaining governmental approval using this premise on 24 October 2018. UNHCR received a positive reply from GoE approval for this premise through (MFA) in March 2019.

The Building is a semi finished building where UNHCR wants to convert it to a reception center. This implies having clear separate circulation routes (internal & External for including but limited to entrances, staircase, corridors, waiting areas, common areas). UNHCR safety measures will be integrated within all design documents to be implemented in full once the building is operational as per the UNDSS & UNHCR guidelines for safety and security.

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The building should also have central archives for the open cases/files of UNHCR's People of Concern (POCs).

Proposed Building Location:

Building Location & Way to Site:

- 2nd district-6 of October City
- Landmark: MSA University

UNHCR Current Premises

UNHCR Potential Building

26 of July Corridor

El Wahat Desert Road

Main Roads

City Entrance

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Project Details

• Building permit:	Obtained for Medical use.
• Construction quality:	The intial building screaning shows above avarge to good construction quality
• Construction Stage:	Partially finished
• Building/premises Description:	The building is composed of basement, ground, and first floor.
• Entrances:	Two main entrances, two side entrances
• Vertical Circulation:	3 elevator pits, four stair cases
• Area per Floor:	1100 m2 Approximately
• Total built up area:	3890 m2 Approximately
• Total Landlot area:	3300 m2 Approximately
• Provision of Reception Area:	Available, relatively spacious
• Electro Mechanical Systems:	N/A
• Firefighting/ Alarm systems:	N/A
• Generator:	N/A
• Parameter/ Fence:	Available except for the front elevation
• Other Features:	The building has an internal atrium

Building Exterior: Please refer to pictures attached to the RFP,

4. Design Objectives

The current buildings in 6 October are neither designed nor equipped to host large number of staff and receive refugees. An average of 600-700 refugees/asylum seekers wait on the street on daily basis until they are processed and admitted to UNHCR's building. **Having the large crowd waiting on the street limits the ability to manage the crowd and pauses security concerns for women, children and certain profiles**.

The waiting conditions outside the offices are not meant for a large crowd; Refugees have to wait down the street for hours under the heat or rain. The space for the waiting area inside the offices does not allow addressing the needs of children, people with special needs or pregnant women especially with the COVID -19 situation.

Staff are attending to refugee inquires under conditions that are not ideal. Staff at the front- line are sitting in an open space. The overcrowded environment at the front gate affects the ability of staff to efficiently address refugee issues. The environment is certainly not conducive to support staff-welfare

Hence UNHCR aims to have the 2nd district building designed and constructed to address the below:

- Wellbeing of PoCs; It is vital, the new design would propose solutions that preserve the dignity and wellbeing refugees.
- Efficiency of daily work.
- UNHCR Staff render daily services to refugees with high commitment level of delivery that requires insuring a healthy, suitable, comfort working environment & space

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- Addressing safety and health measures during the COVID-19 situation.

Economy of Systems and Components

- Provide innovative solutions to minimizing / consolidating cores and service areas within the typical floor plates, while adhering to DM and other authority requirements.
- Provide innovative solutions to address UNHCR special requirements and work guide lines for all spaces (office spaces, common areas, Reception Facilities, interview rooms) this should be reflected on Architectural design, Safety and security systems, infrastructure systems, facades…etc
- Prioritize standardized structural grids and earthquakes codes
- Work with unitized panels and avoid custom design glass / façade panels.
- Use common material / component dimensions and modules.
- Floor layouts to optimize the space usage.
- Natural lighting and ventilation are vital for workspaces and the Consultant(s) should address this aspect and reflect it through all design stages.
- Construction phasal approach will be UNHCR choice for the project implementation. The consultant will deliver a full design for all systems. However; design packages will be issued for tender and construction factoring UNHCR financial plan for the project implementation.

***Please refer to Annex 3.P.41 UNHCR General Guidelines for Buildings*

5. SCOPE OF SERVICES

The Services to be performed by the Consultant in relation to the Project are described inclusively below.

5.1. General

(a) The Services to be performed by the Consultant in relation to the Project include comprehensive design services (including all specialist services) for all elements of the Project, tender (including tender documentation), contract documentation and construction documentation and construction supervision services (including performing the role of the Engineer under the Construction Contracts). The afore mentioned services should be rendered on a complete set of AS BUILT Drawings (To be provided by the Consultant).

The following is a list of the main disciplines required to complete the design but is not intended to be exhaustive and does not imply any exclusion of a discipline not listed:

- architectural
- structural
- mechanical
- electrical
- plumbing
- fire & life safety
- civil engineering

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• landscape
• façade design and maintenance
• security, access control, surveillance
• security and risk assessments
• ICT, audio/visual, information technology, telecom and low voltage design
• codes and approvals
• environmental (including EIA if required)
• sustainability (to DM requirements only)
• lighting design
• acoustic engineering
• waste management
• geotechnical review of soil reports, preparation of preliminary test pile design and liaising with the local authority
• architect of record.

5.2. BASIS OF SCOPE OF SERVICES

- The following constitute the basis of the Scope of Services to be performed by the Consultant in relation to the Project:
- The Consultant shall serve as an integral part of the Employer team. The scope of Services below concentrates on deliverables; however, the Consultant shall provide a complete proactive consultancy service, attending monthly and/or weekly meetings and workshops as and when required and gives comments and advice to other team members and local consultants when required.
- The Consultant shall satisfy the requirements of the Authorities having jurisdiction.
- All the drawings shall be provided in CAD and PDF formats in all stages for all disciplines, however the extensions of all deliverables shall follow the approved BxP in all stages for all disciplines
- The Consultant shall undertake constructability analysis of the design. The concept and schematic design should be developed with consideration for constructability to make sure that there are no ambiguities, inconsistencies or other problems, which could lead to otherwise preventable difficulties during construction or affecting the design intent during the design development.
- The Consultant's deliverables shall be produced at an appropriate scale and level of detail.
- The Consultant shall be responsible for supplying the necessary human resources, systems and procedures required to effectively deliver the full coordinated sets for all trades in accordance with the Project Programme.
- Procedures employed by the Consultant shall provide for a proactive approach and efficient management style and shall be supported by efficient control systems.
- The Consultant shall investigate the availability of material, products and systems that will be utilized in the Project in the local market
- Prior to the preparation of design, the Consultant shall review the Preliminary Conceptual design based on the Project design brief and research findings of the local market; and subsequently a report on this study. The Preliminary Conceptual

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design validation report shall be submitted to UNHCR for discussions and the UNHCR's approval. It is the responsibility of the Consultant to obtain all pertinent information and other data as shall be necessary and to carry out all surveys needed to perform his obligation. Based on the results and the recommendations of such reports and the outcome of the discussions between the UNHCR and the Consultant, UNHCR will then decide upon the final criteria of the design and the extent of the Project.

- The Consultant shall provide all his services in accordance with local Egyptian codes and internationally recognized codes, standard and recommended practices (BS, NFPA, ASTM etc.). All specified equipment and material shall comply with recognized codes and standard. The Consultant shall advise the UNHCR in writing of all codes, standard and recommended practices that he intends adopting throughout the design for the written acceptance and written approval of the Employer/UNHCR and shall provide the Employer/UNHCR with one soft copy of all intended and approved codes, standard and recommended practices.
- The Employer may employ other parties to provide services for the project and the Consultant shall closely liaise and coordinate with the party (or parties) throughout the design stage of the project and exchange with them with all required information, drawings, schedules, etc. to enable him to undertake their services on the Project.
- A senior Design Professional representing the Consultant, and approved by UNHCR, shall be the main point of contact with the UNHCR, along with the necessary team of professionals assigned to the Project.
- The Consultant shall conduct site visits especially during the initial stages to the Project location and be responsible for familiarizing himself with the natural conditions and environmental aspects of the project to ensure the design is matching the Highest and Best Use recommended by the UNHCR for the development and the advance product

5.3. Design Stages

The Consultant shall be responsible for the execution and delivery of the following stages along with the associated deliverable items ensuring these are in line with the Employer's design brief and guidelines:

- Stage 1 – Concept Validation
- Stage 2 – Schematic Design
- Stage 3 – Detailed Design
- Stage 4 – Tender Docs. and Evaluation
- Stage 5 – Construction Documentation
- Stage 6 – Construction Supervision for Enabling & Piling Works

5.4. STAGE 1- CONCEPT VALIDATION:

5.4.1 The Consultant shall commence with the Project through a kick-off session with UNHCR. UNHCR will organize all required stakeholders of the Project to be invited to the session. UNHCR will arrange a site visit(s) for the design team to become familiar with the contextual conditions of the site. The Consultant will collect required data such as

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site information, local regulations, UNHCR's budget, targets and expectations and all contextual data.

The Consultant shall review available planning guidelines and by-laws; if any, and establish the basic design parameters for the project including a site analysis to understand the site conditions, topography, views, adjacent land uses, etc. and confirm the physical opportunities and constraints.
The Consultant shall create and study architectural, Structural, MEP, and specialties design alternatives that will explore different approaches to the existing building and potential planning strategies (Adding a typical floor).
The Consultant shall review the documents in accordance with local Egyptian codes and internationally recognized codes, standard and recommended practices (BS, NFPA, ASTM etc.). All specified equipment and material shall comply with recognized codes and standard.
The Consultant shall Validate the concept design work with UNHCR team, regarding related Utility, infrastructure, services, etc.

Deliverables

Stage 1 Review and Validation Report that shall include the following:
a. The compliance with the Attached guidelines for UNHCR buildings & requirements
b. The compliance with the local Egyptian codes and internationally recognized codes
c. A preliminary study of the proposed Structural and MEP systems

CONCEPT DESIGN VALIDATION STAGE

Upon the completion of the Concept Validation stage and with the UNHCR's comments, input and approval to proceed, the Consultant shall commence with Services for the review of the Concept design documents.
During this stage of Services, UNHCR shall expect that the Consultant undertake his initial studies of civil and structural engineering as well as MEP systems, infrastructure and utility services, and general systems and routing including a number of potential options. The Consultant shall coordinate and collaborate with the UNHCR's technical teams and his In-House team.
Based on feedback from the UNHCR and the municipal authorities, the Consultant will review, provide a recommendation report, Architectural Design along with a concept for the Landscape/outdoor spaces design. This will include the identification of key aspects of the project including entries, and the building footprint and BUA, as well as any related aspects.
The Consultant shall coordinate the concept design work with his engineering and Infrastructure teams, regarding related Utility, infrastructure, services, etc.
Finalized design will be submitted to the UNHCR as the Concept Design Report, renders, reports and drawings which will mark the milestone of "Submission of the Concept validation Design Report".
The Consultant shall tackle the design problem by considering the below issues. In addition to these, as the Lead Consultant, Consultant will coordinate the whole design team and their respective scopes of services so that the deliverables regarding all disciplines are presented to the UNHCR in alignment with the Consultant submission.

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The deliverables associated with the scope of works mentioned above will consist of the below items:

Architectural Design:

- The documents compliance with the Codes and standards compliance for Local & International Codes
- Concept Design Report review and validation report that include:

a. The compliance of the new elements with the existing structural systems
b. The compliance with the proposed MEP systems
c. Constructability verification

Structural Design:

- Design Criteria report including the proposed structural systems.

MEP Design:

- Design Criteria report including the proposed systems including but limited to light current, server rooms, electrical network, HVAC systems, CCTV….etc.

Landscape Design:

- Design completeness report
- Design consistency validation
- Compliance with codes and regulations verification
- Constructability verification
- Any further items or documents may consider during the validation

5.5. SCHEMATIC DESIGN – STAGE 2 (must be submitted BIM LOD 200)

- The schematic Design stage is the stage of Services in which UNHCR confirms all of the Project requirements and goals.
- The Consultant prepares Schematic Design Documents consisting of drawings, sketches, models(can be submitted in the DD Stage) and other documents illustrating the scale and relationship of the Project program components. These drawings and documents are produced on greater detail than the previous Concept Design phase.
- After the conclusion of stage 2 and the submission of the Concept validation design Report, the Consultant shall seek approval from UNHCR so that the design work regarding the Schematic Design can commence. The Consultant shall coordinate with UNHCR Technical teams in order to complete the required works according to the agreed project schedule.
- After the completion of the Schematic Design Services, the Consultant shall present the results to UNHCR through the Schematic Design Presentation Workshop. After the review, the Consultant shall amend the Schematic Design submission according to the comments and suggestions UNHCR.

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- The finalized design will be submitted to UNHCR as the Schematic Design Report which will mark Completion of the milestone of "Submission of the Schematic Design".
- The Consultant shall continue with the development of the design through the elaboration of the below mentioned subjects:
  - Implementation of the outcomes of Concept Design into a Schematic Design following the norms and common practice.
  - Site plan studies including access, surface parking area, floor elevations, existing and proposed levels, general planting areas and site features, service areas (if required) and project limit lines (to be produced by and in coordination with the UNHCR technical teams and in accordance with the Municipality of 6 of October city requirements)
  - Floor plan studies including cores and shafts, fixed equipment as made available to the consultant in this phase and fire zoning and fire rating design, overall dimensions, spaces' dimensions, lobbies, corridors, and functional labelling.
  - Section and elevation studies showing longitudinal and transverse building sections and showing the building's construction materials, floor-to-floor heights, ceiling heights and overall heights, mass relationship, wall heights, architectural design treatment of the building shell, use of materials, indicative floor levels
- Interior Design for the different spaces.

Furniture Layouts for all spaces

- Coordination with the Structure systems and proposed layout along with elements dimensions and locations.
- Coordination with the MEP schematic design including the basic requirements.
- Exterior lighting design
- Coordination of all design disciplines Input
- Develop wall types, materials, geometrics for facades of buildings
- Showing all facade component sizes, materials, glazing and shading devices, and exterior lighting fixtures
-

Deliverables

The deliverables associated with the scope of works mentioned above will consist of the below items:
General

- 2 (two) design workshops
- CAD drawings \ Revit model following the approved BxP
- Schematic cost estimate (should be coordinated with UNHCR Focal Points team)
- Schematic Design Report – A3 Size / 3 Copies (as detailed below)
- Architectural Design:
- Schematic Layout
- Site Plan – Appropriate Scale
- Floor Plans – Appropriate Scale
- Building Sections – Appropriate Scale

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- Building Elevations – Appropriate Scale
- Overall Floor Plans – Appropriate Scale.
- Partial Floor plans – Appropriate Scale.
- Rendered models
- Definitive area schedule
- Outline specification of internal and external material
- Outline BOQ – submitted in E-procurement format
- Coordination with the assigned Operator, if any.
- Interior Design:
- Schematic design report
- All drawings scaled (1:50)
- General floors plans as follows:
    a. Architectural Floor Plans, schematic level
    b. Reflected ceiling plans, schematic level
    c. Flooring pattern plans, schematic level
    d. Wall Finishing plans, schematic level
    e. Furniture layout with electrical Plans indicating locations, quantities of all devices (in collaboration with MEP Consultant) , schematic level
    f. f) FF&E layout floor plans with furniture codes, schematic level

- Schematic level blow ups of key spaces showing major design decisions as follows:
    a. Floor Plans, schematic level
    b. Elevations, schematic level
- Schematic key Interior elevations & sections, schematic level
- Typical Details: Door & Window, Millwork details, schematic level
- Outline Specifications (CSI format), schematic level
- Schematic specifications and priced BOQ submitted in E-procurement format
- Schematic level of the following schedules:
    a. Sanitary fixtures schedule
    b. Finishing schedule
       Lighting fixtures schedule
    c. Coordination with the Assigned operator on the suggested FF&E
    d. Concept furniture layouts (indicative for CGI generation) through CAD format
    e. 3D Renderings of typical interiors and rendered floor plans

Structure Design:

- Final structural schematic design report including design criteria, and sheets indicating the following:
- Schematic framing plans for the additional floors, bridges, fences and internal courts, depicting structural system and preliminary sizing for different structural elements.
- Columns and beams schedule.
- Preliminary details for any special elements.

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MEP Design:

HVAC:

a. Identify HVAC zones and HVAC loading.
b. Identify suggested proposed systems with complete comparisons.
c. Identify the locations of Main equipment.
d. Determine shaft location for risers and establish clearance requirements of the ductworks on architectural drawings.
e. Drawings to indicate the sizing and typical layout and clearance requirement of major MEP Equipment
f. rooms in floors, basement, and roof.
g. Schematic specifications and priced BOQ.

Electrical:

a. Load estimation to define the electric demand of the building which includes all lighting loads, power, HVAC, plumbing, FF equipment, and all other equipment.
b. Schematic riser diagrams and plans to indicate the concept of the design.
c. Establish vertical transportation, capacities, speed and size of elevators.
d. Drawings to indicate the sizing and typical layout and clearance requirement of risers, transformers, main panel boards, etc. in main electrical rooms.
e. Coordinate the building MEP systems with infrastructure utilities.
f. Schematic specifications and priced BOQ.

Plumbing and Fire Protection

a. PL & FF calculations.
b. Schematic drawings to indicate Cold and hot water supply systems.
c. Schematic drawings to indicate Soil, waste, vent and storm systems.
d. Schematic drawings to indicate Firefighting systems.
e. Drawings to indicate the location and sizing of water tanks for water, and firefighting.
f. Coordinate the building MEP systems with infrastructure utilities.
g. Schematic specifications and priced BOQ.

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Exterior Lighting Design:

- Schematic exterior lighting details
- Development of preliminary lighting plans and details
- Preparation of preliminary design development of lighting systems and descriptions with system cut sheets and sketches, recommended manufacturer, lamp type and wattage.
- Lux study report
- Façade lighting
- Lighting fixtures schedule and date sheets
- Refined rendered models and a complete set of drawings
- Presentation to UNHCR

LAYOUT Landscape Design:

- Schematic landscape design for the selected zones.
- Developing the schematic design drawings, including; overall landscape design area specification plans, as well as sections and illustrative diagrams with respect to the determined structure, and MEP requirements.
- Planting Study with water requirements assumption for roof floor & reception areas.
- Preparing a general description of the landscape design theme, including materials and plants outline.
- Schematic design for customized materials and Furniture.
- Finally, a cost plan reflecting the landscape schematic design should be introduced for UNHCR's review and approval.

Architectural Schematic Design report should include:

COVER PAGE

- Rendered plan and/or elevation representative of the Project.
- Scale = NOT TO SCALE

LATOUT PLAN

- Composite site plan of the Project showing location of building, drive ways, parking, and landscape elements.
- Clear delineation of the Project limit lines.
- Site sections to explain overall relationships.
- Phasing plan if required.
- Scale = 1:500 / 1:250

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OVERALL FLOOR PLANS / BUILDING PLANS

- Plans of all floors showing existing structural elements & system, vertical transportation elements, core elements, vertical shafts, interior partitions, floor elevations.
- Interior design flooring & ceiling for common areas.
- Key dimensions, bay sizes and overall dimensions.
- General notes indicating major extent of materials and any special conditions or equipment.
- Key Project limit lines.
- Definitive Area Schedule.
- Scale = 1:200 / 1:100
- PARTIAL FLOOR PLANS / Interview rooms – Waiting Areas – Circulation Segregation (refugees/Staff – Archives
- Plans of the specific facilities / functions showing structural system, vertical transportation elements, core elements, vertical shafts, interior partitions, floor elevations.
- Interior design flooring & ceiling for common areas.
- Key dimensions, bay sizes and overall dimensions.
- General notes indicating major extent of materials and any special conditions or equipment.
- Definitive Area Schedule.
- Scale = 1:50

OVERALL ROOF PLANS

- Overall roof plans showing equipment
- Roof material
- Preliminary drains and slope
- Scale = 1:200 / 1:100

BUILDING SECTIONS

- Sections through buildings to show all relevant conditions including vertical transportation and adjacent conditions.
- Interior design sections and internal elevations showing bulkheads, ceiling height, wall finishes for common areas.
- Major vertical heights.
- Ceiling heights.
- Preliminary wall sections keyed.
- Partitions details
- Scale = 1:200 / 1:100

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BUILDING ELEVATIONS

- All major elevations.
- Minor elevations if they contain significant items(internal elevations on the court).
- Typical materials.
- Floor lines indicated.
- Overall dimensions.
- Setbacks and overhangs indicated.
- Relationship to existing and finished grade clearly shown.
- Schematic Exterior lighting plans, sections and renderings.
- Façade maintenance strategy.
- Scale = 1:200 / 1:100

PRESENTATION DRAWINGS

- Colored rendering of general plans and elevations.
- Rendered perspectives (maximum of 3)
- Scale = NOT TO SCALE

SCHEMATIC DETAILS

- Preliminary wall sections.
- Partial elevations indicating material and details.
- Enlarged significant plans.
- Scale = 1:50 / 1:20
- DESIGN DESCRIPTION
- Description of design features.
- Design narrative and philosophy.
- Exterior lighting design criteria.
- Circulation and connectivity diagrams
- General notes.
- Phasing strategy and program.
- Scale = NOT TO SCALE
- Landscape Schematic Design report should include:
- Final schematic landscape master plan
- Schematic design report
- Layout planF
- Hard Landscape Plan
- Materials schedule and specifications
- Soft landscape plan
- Planting schedule and specifications
- Finish levels
- Lighting plan and fixtures specifications
- Site furniture plan and specifications
- Gates and fences plans and sections

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- General cross sections; indicating levels and retaining wall treatments (if any)
- Typical details and sections for design elements; to coordinate with Structure, MEP and Infrastructure networks
- Three specific zones detailed blow ups; supported with perspectives and sketches.
- Preliminary B.O.Q in E-Procurement Format
- Landscape design guidelines

Based on the Schematic Design Documents submitted, UNHCR shall review/comment and approve the Schematic Design Documents. The Consultant shall be required to perform all revisions necessary to comply with UNHCR's comments.

Raw materials, CAD files, BIM and any related 3D models will be owned by UNHCR at the end of the schematic design stage or upon UNHCR's request at any stage.

5.6. DESIGN DEVELOPMENT – STAGE 3 (must be submitted BIM LOD 300)

The consultant is responsible for developing Architectural/Electromechanical design for the Project; finalize the design of the remaining disciplines through Design Development, Tender Drawings and Construction Documents stages; and to coordinate and liaison with other consultants and specialist (if any) who will be appointed by UNHCR to ensure that the vision and requirements of UNHCR as are integrated and ultimately achieved to the satisfaction of UNHCR.

<u>SERVICES TO BE PROVIDED:</u>

The Services to be performed by the Consultant in relation to the Project include the following:

- Coordination and provision of relevant data.
- Provision of Design Development for the following disciplines and specialties:
    a. Civil and Structure.
    b. MEP.
    c. Exterior Lighting.
    d. Architectural.
    e. Interior design & interior lighting.
    f. Landscape Design
    g. Provision of Authorities Approvals for the following disciplines and specialties:

- Permit drawing sets for building licenses
- Architectural &Structural permit package

    a. Provision of Tender Drawings for the following disciplines and specialties:
    b. Civil and Structure.
    c. MEP.
    d. Landscape Design.

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e. Exterior Lighting.
f. Architectural.
g. Interior Design and Interior Lighting.

- Provision of Construction Documents for the following disciplines and specialties:
  a. Civil and Structure.
  b. MEP.
  c. Exterior Lighting.
  d. Architectural.
  e. Interior Design and Interior lighting.
  f. Landscape Design

- Coordination and liaison with all specialties consultants and nominated sub consultants throughout relevant stages of the design.
- provide cost estimates foreach design stage.
- Carry out value engineering exercises during all design stages to maintain UNHCR's Project budget.

BASIS OF SCOPE OF SERVICES:

The following constitute the basis of the Scope of Services to be performed by the Consultant in relation to the Project:

- The Consultant shall serve as an integral part of UNHCR team. The scope of Services below concentrates on deliverables; however, the Consultant shall provide a complete proactive consultancy service, attending monthly and/or weekly meetings and workshops as and when required and gives comments and advice to other team members and local consultants when required.
- The Consultant shall satisfy the requirements of the Authorities having jurisdiction on the design of the Project.
- All the drawings shall be provided in CAD and PDF formats and Revit modeling in all stages for all disciplines.
- The Consultant shall undertake constructability analysis of the design to make sure that there are no ambiguities, inconsistencies, or other problems, which could lead to otherwise preventable difficulties during construction.
- The Consultant's deliverables shall be produced at an appropriate scale and level of detail.
- The Consultant shall be responsible for supplying the necessary human resources, systems and procedures required to effectively carry out the required Services in accordance with the Project Program.
- Procedures employed by the Consultant shall provide for a proactive approach and efficient management style and shall be supported by efficient control systems.
- The Consultant shall provide all his Services in accordance with local Egyptian codes and internationally recognized codes, standard and recommended practices (BS, NFPA, ASTM etc.). All specified equipment and material shall comply with recognized codes and standard. The Consultant shall advise UNHCR in writing of all codes, standard and recommended practices that he intends adopting

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throughout the design for the written acceptance and written approval of UNHCR and shall provide UNHCR with one soft copy of all intended and approved codes, standard and recommended practices.

- A senior Design Professional representing the Consultant, and approved by UNHCR, shall be the main point of contact with UNHCR, along with the necessary team of professionals assigned to the Project.
- The Consultant shall in performing the services uses its best endeavors to identify those technical and economic solutions which are most suited to the requirements of the Project.
- The Consultant shall employ a highly interactive process that will focus on creating an exciting vision for the Project and achieving UNHCR's development goals and objectives.
- Upon the completion of Stage 3 and with UNHCR's comments, input and approval to proceed, the Consultant shall commence with Services for Stage 4.
- The Consultant shall provide Design Development documents based on the approved Schematic Design documents. The Design Development documents shall illustrate and describe the refinement of the design of the Project, establishing the scope, relationships, forms, size and appearance of the Project by means of plans, sections and elevations, typical construction details, and equipment layouts. The Design Development documents shall include specifications that identify major materials, systems, and establish in general their quality levels.
- At this Stage, the Consultant shall maintain all the coordination activities with the specialties consultants / Suppliers appointed by UNHCR.

- The design Development stage shall include but not limited to the following:

Architectural Design:

- Drawings to include, and not limited to, dimensioned structural bay system, Internal partitions drawn and located and dimensioned, all casework and other equipment called out on plans, major mechanical/electrical systems reflected and indicated on the plans. Drawings to indicate all plumbing fixtures, all room names and numbers, exterior and interior doors and windows, fire rated partition types, match lines, expansion joints building sections, enlarged plans, etc.
- Drawings to include building core plans, stairs, elevators, toilets, shafts, etc. drawn to a larger scale in addition to material finishes plan with tags indicating floor wall and ceiling finishes.
- Provide reflected ceiling plans for all finished spaces indicating lighting fixture locations, speakers, CCTV's, soffits/bulkheads, skylights, etc.
- Identify major ceiling materials and their relationship with partitions, areas with exposed structure, etc.
- Drawings to include all building elevations with roof structures and foundations, exterior and interior windows and doors, exterior mechanical equipment and demarcation of all materials used, in addition to column center lines, floor levels, vertical dimensions, overall building heights, expansion joints and major panel joints. Drawings must include detailed elevations at a larger scale as necessary to

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indicate building entrances, building canopies, tent structures, special features, special brick work or masonry etc.

- Drawings to include major building sections identifying column lines and feature openings and relationships between floors, ceilings, structure and mechanical systems.
    a. Drawings must indicate the finished grade around the building and include typical wall sections with assembly details, in addition to vertical dimensions including floor to floor and ceiling heights.
    b. Drawings to include large scale details as necessary of major exterior wall assemblies (Parapet to foundation), large scale details as necessary of major foundations and perimeter treatment (Coping and Parapet details), typical window and door details (i.e. head jamb and sill conditions) and exterior columns details. Key areas should be included such as stair details, ramps, elevators, loading docks, shafts, chutes and others where necessary, in addition to major casework elevations and millwork profiles.
    c. Detail drawing scales must conform to the norm.
    d. Provide exterior & interior door and window schedules for the project in addition to the project inventory and space/area schedule.
    e. A full life safety report + drawings should be provided with the DD submission.
- The Consultant shall continue with the development of the design through the elaboration of the below mentioned disciplines. In addition to these, the Consultant shall coordinate the whole design team and their respective scopes of works so that the deliverables regarding all disciplines are presented to UNHCR in alignment with Consultant submission.

<u>Interior Design:</u>

- Design development report
- General floors plans, scaled 1:50, including but not limited to the following:
    a. Architectural Floor Plans
    b. Reflected ceiling plans
    c. Flooring pattern plans
    d. Wall Finishing plans
    e. Furniture layout with electrical Plans indicating locations, quantities of all devices (in collaboration with MEP Consultant)
    f. FF&E layout floor plans with furniture codes
    g.
- Blow ups of the following spaces: public toilets, Reception area, a typical interview room & main meeting room scaled 1:20, including but not limited to the following:

    a. Floor Plans: architectural plans, flooring pattern plans, wall finishing plans, reflected ceiling plans, electrical outlets plans
    b. Full Elevations & sections
- Details: Door & Window, Millwork details, schematic level
- Vendor list
- Specifications (CSI format)

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- Priced BOQ E-procurement format
- Full schedules:

    a. Sanitary fixtures schedule
    b. Roombook finishes schedule
    c. Lighting fixtures schedule
    d. Millwork schedule
    e. Coordination with the Assigned operator on the suggested FF&E

- Full package of FF&E including but not limited to the following:

    a. Plans showing codes of each FF&E item, FF&E list, includes but not limited to: item, manufacturer, local distributor/dealer, price, specs , availability in local market.
    b. Staff& POCS, interior and outdoor spaces, FF&E schedules, per space, including full specifications for selections. E.g. brands, codes and material. And for custom designed items, full specifications including dimensions and sketches to be included
    c. Staff& POCS spaces FF&E schedules, per space, including full selections specifications;
    d. Approved, updated FF&E materials, fabric & finishes pallets/sample boards, per space;
    e. Accessories schedules, including specs and dimensions (pots/ bins, decorative items… etc.);
    f. Priced BOQs for all FF&E items and accessories in both PDF and excel formats.

Structural:

The structural detailed drawings shall be drawn to a suitable scale, and shall show the different parts of the additional floor to be added and details of all structural modifications to be done to the existing situation with the required dimensions and levels covering the following:

- Complete structural analysis software models.
- Complete calculation sheets for all structural elements.
- Structural plans showing the concrete dimensions for all structural elements including, floors, shear walls, cores and beams.
- floors, shear walls, cores and beams.
- The detailed structural partial plans.
- Structural connections and relations between different structural parts.
- Structural details for the water insulation, stairs, cores and miscellaneous.
- Development of itemized Bill of Quantities (BOQ) Submitted in E-Procurement Format

HVAC

a. HVAC floor plans for all areas showing pipes, supply & exhaust air ductwork with sizes based on the updated calculations.
b. Provide typical mechanical equipment room plans with resolution of review comments made during the previous submission.

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c. The sequence of operation explaining the function and role of each control device and describe the safety/alarms and normal operating controls of each system.
d. Complete riser diagrams and the schedules of equipment.
e. HVAC calculations.
f. Technical specifications.
g. HVAC BOQ.s

Electrical

a. Final electrical lighting and power layout plans of different floors.
b. Power system riser diagrams for mains and emergency networks.
c. Single line diagrams and panel schedules for essential and nonessential panel boards.
d. Layout plans, sections and details of electrical equipment rooms and risers.
e. Layout plan and details of earthling and lightning protection systems.
f. Layout plan for the landscape lighting and panel single line diagram.
g. Complete calculation for electrical systems.
h. Triple play system layout plans.
i. Fire detection and alarm system Layout plans.
j. CCTV and access control Layout plans.
k. General arrangement layout plans and details of Security Systems, Control Room (s) and IT Rooms indicating the arrangement of different equipment.
l. Systems riser diagrams including systems chart and distribution in each floor.
m. Technical specifications for different systems and elevators.
n. Electrical & Low Current BOQ.s.

Plumbing & Fire Fighting

a. Final Design calculations for water and sewage demands, firefighting and main equipment.
b. A full set of floor plans showing single line distribution system; locating major equipment and size clearances requirements; shafts (dimension chases; mechanical rooms and required wall/floor penetrations, and block-outs).
c. Complete riser diagrams for sanitary, stormwater, sanitary sewage and fire protection systems.
d. Detailed drawings for toilettes for both drainage and domestic water systems.
e. Standard general miscellaneous details for typical installations of different systems.
f. Complete material and equipment specifications for all plumbing and fire protection systems.
g. Technical specifications.
h. PL & FF BOQ.s

Landscape:

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The schematic design shall be refined during Detailed Design development to establish more detailed plans. The Consultant shall ensure that each of the different services, levels, irrigation, landscape drainage and lighting are coordinated together.

Work during this phase include but not limited to:

- Analyze UNHCR comments on landscape schematic design.
- Review unsolved issues on schematic design.
- Provide comments report for the schematic package and Recheck schematic design documents
- Review and coordinate all architectural, structural, MEP data.
- Determine and implement structure, MEP requirements.
- Prepare a general description of the project, including materials and plants out line.
- Provide landscape specification.
- Submit Detailed Design documents
- Developed design for customized materials and Furniture.
- Attending the tender process and replying to the tenderers queries

For the Hard landscaping:

- General notes and abbreviations
- Landscape Drawings (LANDSCAPE D)
- Hard Landscape Key Plan @ scale 1:250
- Hard Landscape Layout Plans @scale 1:250
- Materials layout and details @scale 1:250
- Dimensions layout @scale 1:250
- Finish levels and site grading plans @scale 1:250
- Storm drainage plans @scale 1:250 and details; excluding sub-surface engineering
- Site furniture plan @scale 1:250 and details
- Setting out and Levels plan @ 1:400
- Landscape lighting plan @ 1:250 and specifications Irrigation (main line, sprinklers and dripper's network plans)
- @ 1:250 and specifications.
- Type of irrigation control system.
- Typical details addressing fixation and type of slot drains, linear drains, etc…
- Details for stairs and ramps indicating elevation, material, concrete support, and handrails
- Handrail Details indicating Post spacing and profile, and fixation details.
- Hard Landscaping Details @ 1:20/10
- Specifications
- Priced Bill of Quantities
- Rendering shots for main landscape areas and features.
- Detailed Design for Customized Materials and Furniture

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For the Soft Landscaping:

- Palms, trees, shrubs etc... Planting Plans @ 1:200
- Soft Landscaping Details @ 1:20/10
- Planting Details including sub-base/depth and type of soil for each plant type, as well support method for stability.
- Specifications

The Design Development Deliverable should include but not limited to the following:

2x copies A1 sheet size + 2x copies A3 sheet size including;

- Setting out plans in addition to partial site plans using match lines.
- Floor plans – for all buildings using ACAD in addition to partial floor plans using match lines.
- Elevations covering all buildings with materials and FFL levels.
- Sections covering all buildings.
- Blow-up sections.
- Wall sections.
- Reflected ceiling plans in addition to partial floor plans using match lines.
- General details.
- Miscellaneous details.
- Wet areas blow ups.
- Stair details.
- Doors and windows (use industry norm scales).
- Hardware schedules.
- Final Earthwork package (if any).
- The following file formats should be provided: PDF, CAD and Revit models.
- Signed and/or stamped quality control sheets should be provided for all disciplines.
- Final full specifications; refer to CSI format -1988 Master format / Divisions 1-16.
- A BOQ for all disciplines should be provided in an E-procurement format.

Design Development Cost Plan:

The Consultant shall coordinate with the cost consultant appointed by the Client for purpose of assisting him in the preparation of a Design Development cost estimate based on documentation available at completion of the Stage.
The Consultant shall adhere to UNHCR's budget by carrying out value engineering exercises during Design Development stage.

5.7. LIFE SAFETY – STAGE 4

- Life Safety Review and study according to the Egyptian Fire Protection Code requirements and/or National Fire Protection Association (NFPA - 101) for those clauses that are not addressed by Egyptian Fire Protection Code :
    a. Reviewing the Architecture drawings.

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b. Reviewing the Site plan, Layout, Assembly points and fire apparatus access road.
c. Advise for: Firefighting, HVAC, Electrical and Structural, etc.

- The Life Safety Report according to the Egyptian Fire protection code requirements and UNHCR Safety and Security guidelines:

  a. Preparing the report of the project including total study for: Occupancy Classification, Occupancy Load and Exit Unit numbering calculations, Calculations of Escape Routes, Fire egress, Travel Distances, Dead Ends, Fire Rated Walls, Fire Rated Doors, Architectural fire Zones plan, Fire Barriers.

  b. Advise for: Smoke evacuations system, Staircase pressurization fans, Smoke extraction fans, Firefighting systems, Fire alarm systems, Emergency lighting, Fire elevators, panic buttons system, magnetic doors locks with asceses cards, etc.
- Life Safety Drawings:
  a. a) Preparing the Life Safety drawings (fire rated walls and doors, Escape routes, Travel Distance, Dead end, Signage).
  b. In company with UNHCR, attend meetings with Civil defense (if any) and UNHCR Safety Field advisor(s) to discuss/review Life Safety relevant issues required at the design stage (when required).
  c. Liaise and coordinate with Civil Defense to get approval / consent required at the design stage and attend site inspection visits (when required by the Civil Defense Authority if any).

Deliverables:

(Must include but not limited to):
- Life Safety Design Report.

The report shall include but not limited to the following:
a. Objectives / Purpose of the Report.
b. Short project description.
c. Statement of the Codes and standards used in the design / Report References.
d. Building classification.
e. Occupancy classification.
f. Fire rating for building structure (columns, beams, roof, etc.)
g. Separation of building spaces, fire zoning and fire rating for building elements as needed, walls, doors,...etc.
h. Pressurized zones requirements and limits.
i. Escape routes and Exits: (Basis of design, No. of exits, Travel distances, Dead ends, Exit calculations, etc.)
j. Garage / Parking areas requirements.
k. Fire Apparatus Access Road.

- Life Safety Drawings.

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The drawings shall include but not limited to the following:

a. Occupant load.
b. Fire rated walls and doors.
c. Escape routes.
d. Travel Distance.
e. Dead-end.
f. Site plan showing Assembly points, Fire apparatus access road, location of fire hydrants, etc.
g. Signage.

- Architectural life safety certificate stamped from Egyptian Syndicate of Engineers.

3.5. AUTHORITIES APPROVAL AND PERMITS SET – STAGE 5

Provide Permit drawing sets to submit to authorities for building licenses.
Deliverables for the Permit Documents A0 size as Soft Copy (include but not limited to):

The architectural permit package shall include the following:

- Site plan including external roads, fencing, parking and showing different buildings coordinates levels and areas schedule.
- All floor plans showing all project elements and area names.
- Elevation and required sections to illustrate the relation of different parts, showing the heights and levels.

The structural permit package for new components of the project (additional floor structural modifications in slabs) shall include the following:

- Complete structural analysis software models.
- Complete calculation sheet for all structural elements as per project codes and specifications.
- Concrete dimension for all structural elements including, floors, shear walls, cores, beams, etc.
- Reinforcement tables and details for all structural elements including new foundations, floors, shear walls, cores, beams, if any etc.

The MEP authorities package:

- The consultant will provide a complete package required for the Authority approvals.

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5.8. TENDER DOCUMENTS – STAGE 6

The Consultant shall provide Tender Documents based on the approved Design Development documents and updated budget for the Cost of the Project. The Tender Documents shall set forth in detail the requirements for construction of the Project. The Tender Documents shall include Drawings and Specifications that establish in detail the quality levels of materials and systems required for the Project. The Consultant shall reply to all contractors' queries during the tender process. The consultant also shall review and evaluate the technical offers of the bidders and provide the Tender evaluation report.

SUBMISSION TO INCLUDE

Architectural Drawings

- Finalization of the drawings and deliverables as per the previous stage in addition to full
- coordination between all trades and ensuring cost compliance and designing to budget,
- including the interior design drawings and related documents.
- Final specification document will be required at this stage.
- Final BOQ in E-Procurement Format

Structural & MEP

- Finalization of the drawings and deliverables as per the previous stage in addition to full coordination between all trades.
- Provide structural plans and details for all additional and modified structural elements (drawings and calculations) including life safety report.
- Provide all needed civil defense documents including but not limited to drawings and code compliance.
- Drawings must incorporate full specifications and trade coordination.
- Final BOQ in E-Procurement Format

Interior Design Drawings

- Finalization of the drawings and deliverables as per the previous stage in addition to full
- coordination between all trades and ensuring cost compliance and designing to budget,
- including the related documents.
- Final specification document will be required at this stage.
- Final BOQ in E-Procurement Format.

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Landscape Drawings

- Finalization of the drawings and deliverables as per the previous stage in addition to full coordination between all trades and ensuring cost compliance and designing to budget, including the related documents.
- Final specification document will be required at this stage.
- Final BOQ in E-Procurement Format

5.9. CONSTRUCTION DOCUMENTS – STAGE 7

The Construction Documents shall set forth in detail the requirements for construction of the Project. The Construction Documents shall include Drawings and Specifications that establish in detail the quality levels of materials and systems required for the Project. The submission should fulfill and include the revised drawings (if any) that reflecting the contractors' queries.

SUBMISSION TO INCLUDE:

Architectural Drawings

- Finalization of the drawings and deliverables as per the previous stage in addition to full coordination between all trades and ensuring cost compliance and designing to budget; including the interior design drawings and related documents.
- Final specification document will be required at this stage.
- Structural & MEP
- Finalization of the drawings and deliverables as per the previous stage in addition to full coordination between all trades.
    a. Provide life safety report.
    b. Provide civil defense drawings and code compliance.
    c. Drawings must incorporate full specifications and trade coordination.

Construction Documents Interior Design

- Submission must include all previously mentioned spaces in the DD.
- Drawings must include sufficient information to enable quantification and allow for tendering.
- Drawings to include and not limited to detailed floor plans, detailed interior elevations, detailed sections, coordinated reflected ceiling plans, coordinated electrical plans indicating location of all devices, coordinated
- plumbing fixtures plans indicating locations of all devices, finalized furniture layout with furniture codes, detailed door & window schedules, detailed millwork schedules, room finishes schedule, final pallet boards/material
- samples and full Specifications (CSI format -1988 Master format / Divisions 1-16).
- Landscape Drawings
- Blow Ups 1:200 and 1:100
- Details/ Sections 1:10 or 1:20
- Plans 1:500 or 1:200

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1. Title Sheet
    a. Site Layout
    b. Schedule of Drawings
    c. Project Name, Location etc.

2. Layout Plan
    a. Existing conditions features
    b. Proposed features
    c. Dimensions or X,Y, (coordinates)
    d. Detail reference tags, labels and descriptions
    e. Notes
    f. Legend
    g. Key Plan
    h. Company Title Block
3. Drainage Plan/ Details and Specifications
    a. Finish floor elevations.
    b. Top of Wall, Bottom of Wall, Top of Stair, Bottom of Stair etc… spot elevations
    c. Drain point locations and subsurface drainage network.
    d. Rim Elevations, Inverse Elevations
    e. Sections and Elevations of important level changes with solutions
    f. Drainage direction strategy
    g. Slope indications
    h. Legend
    i. Key Plan
    j. Title Block

4. Materials (hardscape) Plan/ Details and Specifications

    a. Floor pattern layout
    b. Site Structure (pergolas, Gazebos, tents canopies…. etc.)
    c. Materials plan dimension
    d. Materials details
    e. Detail Reference Key
    f. Legend
    g. Key Plan
    h. Title Block
    i. iBOQ and specification
    j. Labels
    k. Sections and Elevations of features
    l.
5. Furniture Plan/ Details and Specifications

    a. Furniture layout
    b. Furniture details
    c. Detail Reference Key
    d. Legend
    e. Key Plan

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f. Title Block
g. BOQ
h. Labels
i. Sections and Elevations of features

6. Planting Plan/ Details and Specifications
    a. Tree/Palm layout dimension or X,Y,
    b. Tree/Palm labels including type, quantity, height and size
    c. Shrub grouping labels including type, quantity and pots size
    d. Ground cover grouping labels including type, quantity and pot size.
    e. Legend including Latin Name, Common Name, Height and Diameter, Pot Size, Total Quantity
    f. Detail Reference Tags
    g. Special planting Notes.
    h. BOQ
    i. Key Plan
    j. Title Block

7. Irrigation Plan/Details and Specifications

    a. Main line, Lateral, spray head, drip line, bubble, valve, Point of Connection, sprinkler coverage routing and locations.
    b. Detail Reference Labels
    c. Point of Connection as related to the Master Plan Irrigation Strategy
    d. Pump Station Location and Layout with Filters, Irrigation Injection system and all other amenities.
    e. Isolation Valves/ Air Vents
    f. Reservoir Tank Locations (if any)
    g. Controller and Cable Routing
    h. Legend with Valve Calculations/ Groupings/ Water Consumptions/Watering Schedule
    i. BOQ with quantities of all items above.
    j. Key Plan
    k. Title Block

8. Lighting Plan/Details and Specifications

    a. Fixture locations with detail reference labels
    b. Details of fixture mounting
    c. Legend with lighting fixture code, image, type, manufacturer, quantity, bulb specifications (watts etc)
    d. Booklet with Manufacturer cut sheets
    e. Bill of quantities
    f. Key Plan
    g. Title Block
9. Any additional site Details and Sections not included above needed for clarity.
10. Detail Sheets/Sections:
    a. Retaining Walls(if any)

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b. Surface Paving
c. Fences, Screens, Walls etc…
d. Woodwork
e. Site drainage details
f. Handrails details
g. Paving details
h. Site Furniture
i. General details
j. Specification
k. Bill of quantities

11. Final Way Signage including signage plans and details.

Full Specification Document

Refer to CSI format -1988 Master format / Divisions 1-16.

The Construction Document Deliverables should include but not limited to the following (as softcopy):

- Overall site plan and context scale 1:1000 using AutoCAD in addition to partial site plans using match lines scale 1:500/1:400
- Setting out plans scale 1:1000 in addition to partial site plans using match lines scale 1:500
- Overall layouts indicating the outdoor facilities and landscaped areas
- Floor plans – Ground, First, Second and basement (if applicable) scale 1:200 using
- ACAD in addition to partial floor plans using match lines scale 1:100.
- Partial plans for specialized facilities and rooms. Interview room, Main meeting room, Reception area, Waiting areas.
- Elevations covering all buildings with materials and FFL levels scale 1:200 using AutoCAD
- Sections covering all buildings scale 1:200 rendered using AutoCAD
- Blow-up sections scale 1:100
- Wall sections scale 1:25
- Reflected ceiling plans scale 1:200 using ACAD in addition to partial floor plans using match lines scale
- 1:100.
    - General details scale 1:5 or NTS
- Miscellaneous details scale 1:5 or NTS
- Wet areas blow ups scale 1:25
- Stair details 1:25
- Doors and windows (use industry norm scales)
- Hardware schedules
- Other drawings and details based on the typology of the project

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- The following file formats should be provided: PDF, CAD and Revit models.
- Signed and/or stamped quality control sheets should be provided for all disciplines.
- A BOQ for all disciplines should be provided in E-procurement format

6. TIME SCHEDULE FOR SERVICES

The schedule of Deliverables shall be as below:		
Item	Status	Required Action
Concept Review & Validation Report	5 Calendar days from commencement date	
UNHCR's review and approval	3 Calendar days from Concept Review & Validation report Submission	
Concept Review & Validation report Completion	2 Calendar days from UNHCR's Review	
Schematic Design Stage	10 Calendar days from Concept Review & Validation Completion	
UNHCR's review and approval	3 Calendar days from Schematic Submission	
Schematic Design Completion	2 Calendar days from UNHCR's Review	
Life safety and Detailed Design Packages - In progress	15 Calendar days from Schematic Completion	50% life safety + 50% DD + BOQ
UNHCR's review and Cost assessment	7 Calendar days from 50% DD Submission	
Detailed Design Package - Completion	10 Calendar days from UNHCR's Review	100% DD Full Package
Design Development Approval	5 Calendar days from 100% DD Submission	
Tender Package	10 Calendar days from 100% DD Submission	Shall be produced in parallel
Final Life safety package (100%) and Permit Package	5 Calendar days from 100% DD Submission	
UNHCR's review for Tender and Permit	3 Calendar days from Tender & Permit Submission	
Tender & Permit Packages Completion	2 Calendar days UNHCR's Review	
Construction Package	7 Calendar days from Tender documents completion	
UNHCR's review and approval	4 Calendar days from Construction Completion	
Construction Package completion	5 Calendar days from Client Review	

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7. SUPERVISION SERVICES

The Consultant shall obtain the written approval of UNHCR prior to carrying out any duties of the Engineer under the Construction Contract which require such written approval. The Consultant shall be assisted in its role as the Engineer by a firm engaged by UNHCR to provide the professional services.

- Issue to the Contractor all documentation (including without limitation drawings and specifications) required for the construction of the Works under the Construction Contract in the number of copies to be determined later.
- Administer the terms of the Construction Contract and carry out regular inspections of the construction and materials delivered to site to ensure that the Works are constructed in accordance with the Construction Contract.
- Utilize UNHCR 's project management technology platforms where applicable to improve the efficiency of data management and UNHCR 's decision making capability (for example, Primavera Expedition or similar) and to not duplicate data management)
- Set up and maintain document control systems in relation to the Project.
- Arrange weekly site meetings to monitor and discuss the progress of the Works and other matters relating to the construction of the Project including chairing the meetings and preparing and distributing the minutes.
- Arrange technical meetings as required including chairing the meetings and preparing and distributing the minutes.
- Advise the Contractor of the permits, licenses, certificates and the like required to be collected by the Contractor from the relevant authorities and departments and monitor the Contractor’s compliance.
- Review and approval of the Contractor’s proposed procedures in respect of health, safety and security matters and monitor the Contractor’s adherence thereto.
- Review and approval of the Contractor’s procedures manuals applicable to the Works including method statements and monitor the Contractor’s adherence thereto.
- Review and approval of programmes submitted by the Contractor.
- Within seven days after the end of each month prepare and submit to UNHCR the number of copies of a progress report
- Review and approval of shop drawings, product data, samples, inspection and test reports and other Contractor submittals.
- Respond to technical queries, clarifications and the like raised by the Contractor.
- Carry out off-site inspections of materials and equipment as necessary.
- Issue Site Instructions in accordance with the Construction Contract.
- Approve all materials.
- Instruct the Contractor to take samples as required.
- Issue the Engineer’s certificates of payment.
- Assist in the preparation of Variation Orders including preparing and/ or amending drawings and specifications, if applicable.
- Advise UNHCR of potential claims and claims avoidance.

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- Advise UNHCR as to the validity or otherwise of claims for extensions of time submitted by the Contractor under the Construction Contract.
- Prepare and submit to UNHCR on a monthly basis reports on the status of all claims for additional payments or otherwise submitted by the Contractor under the Construction Contract.
- Check that the Contractor prepares and maintains Project records including as-built drawings as the Works proceed.
- As appropriate, instruct the Contractor to open up completed work to confirm or otherwise that it is in accordance with the Construction Contract
- Prepare lists of defects for all trades and issue to and check rectification by the Contractor.
- Check and approve the Contractor's as-built drawings and operations and maintenance manuals.
- Compile all approved as-built drawings, operations and maintenance manuals and other Project records and deliver to UNHCR the number of copies that will be determined later
- Ensure that the Contractor provides all warranties and guarantees required in accordance with the Construction Contract.
- Instruct the Contractor to carry out all tests required under the Construction Contract and attend all such tests. Inform UNHCR of the proposed date, time and place of all tests in sufficient time to enable UNHCR to have the opportunity of attending. Maintain a record of all such tests including test certificates.
- (ff) Prepare and submit to UNHCR a preliminary handover report and assist UNHCR in the handover process.
- Issue Taking-Over Certificates
- Establish suitable procedures for the identification, notification and rectification of defects during the Defects Liability Period and for the final inspection of the Works prior to the issue of the Final Certificate taking into account the need to avoid disturbance to normal operations and use.
- Carry out inspections of the Works at monthly intervals (or such shorter intervals as may be necessary) during the Defects Liability Period and thereafter as necessary to:
- confirm that all work outstanding on the date of issue of the Taking-Over Certificate has been completed and all defects previously notified to the Contractor have been remedied; and
- Identify any further defects and notify the Contractor of such further defects.
- Submit a report to UNHCR within seven days of each such inspection giving details of the current status of works completed, defects remedied and outstanding works and defects.
- Carry out a final inspection after the end of the Defects Liability Period and prior to the issue of the Final Certificate to confirm that the Works have been carried out and completed in accordance with the Construction Contract.
- Review and approval of the technical content of guarantees and warranties submitted by the Contractor including the period of validity.
- Issue Final Certificates.

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- Contribute to feedback reviews.
- Carry out all other duties of the Engineer under the Construction Contract including during the Defects Liability Period and thereafter up to and including the issue of the last Final Certificate.
- Quantity Surveying Services
- Project Management

Construction Supervision Staff

The Consultant's personnel (including any replacement personnel) occupying the following positions in providing that part of the Services described in (Construction Supervision Phase) above shall meet the criteria described below and shall be subject to the prior approval of UNHCR and/or Project Manager. No such approval or otherwise shall release the Consultant from any of its obligations or liabilities under this Agreement:

a. Resident Architect / Engineer

• Relevant degree from a recognized University or relevant professional qualification

• Minimum 20 years relevant experience

• Minimum 15 years relevant experience in similar projects

b. Senior MEP

• Relevant degree from a recognized University or relevant professional qualification

• Minimum 15 years relevant experience

• Minimum 12 years relevant experience in similar projects

c. Architect / Engineer

• Relevant degree from a recognized University or relevant professional qualification

• Minimum 10 years relevant experience

• Minimum 8 years relevant experience in similar projects

d. Document Controller

• Relevant technical qualification

• Minimum 10 years relevant experience

• Minimum 8 years relevant experience in similar projects

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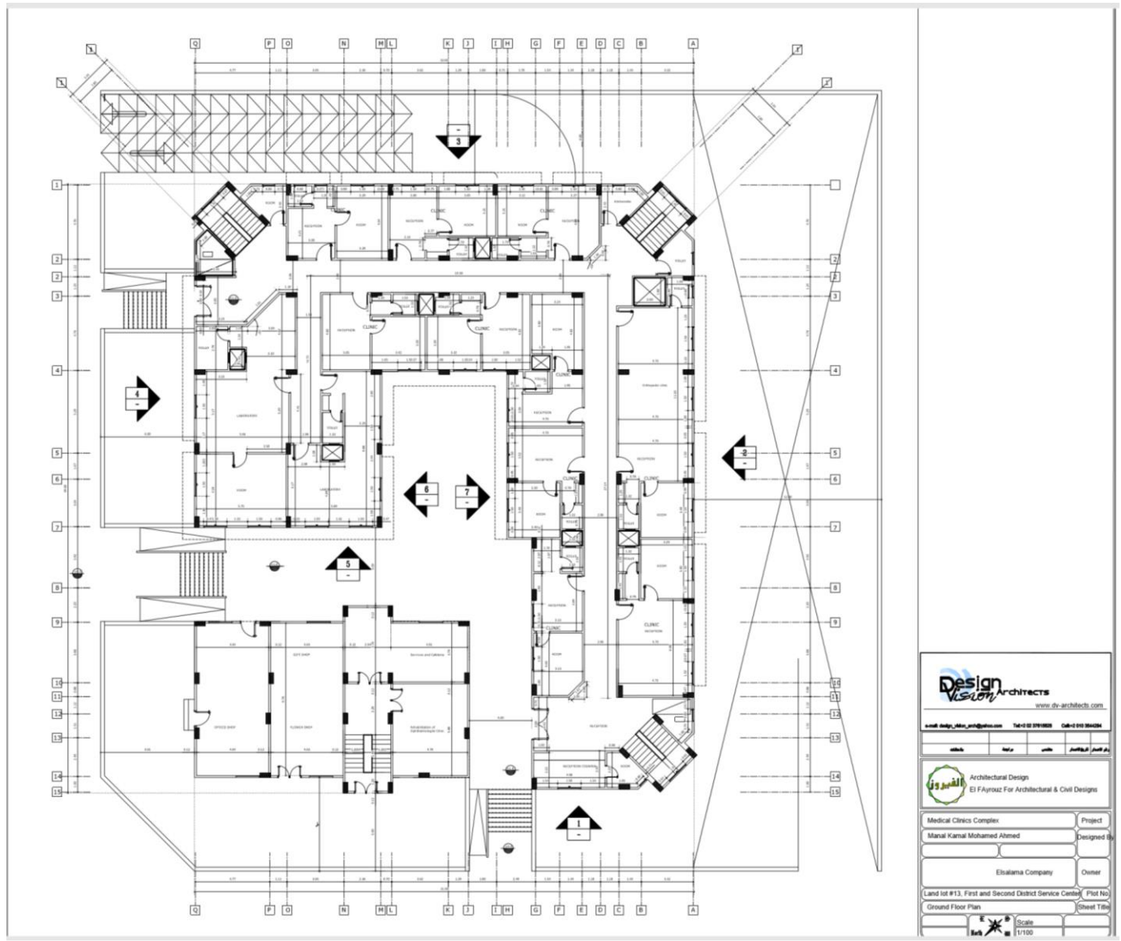
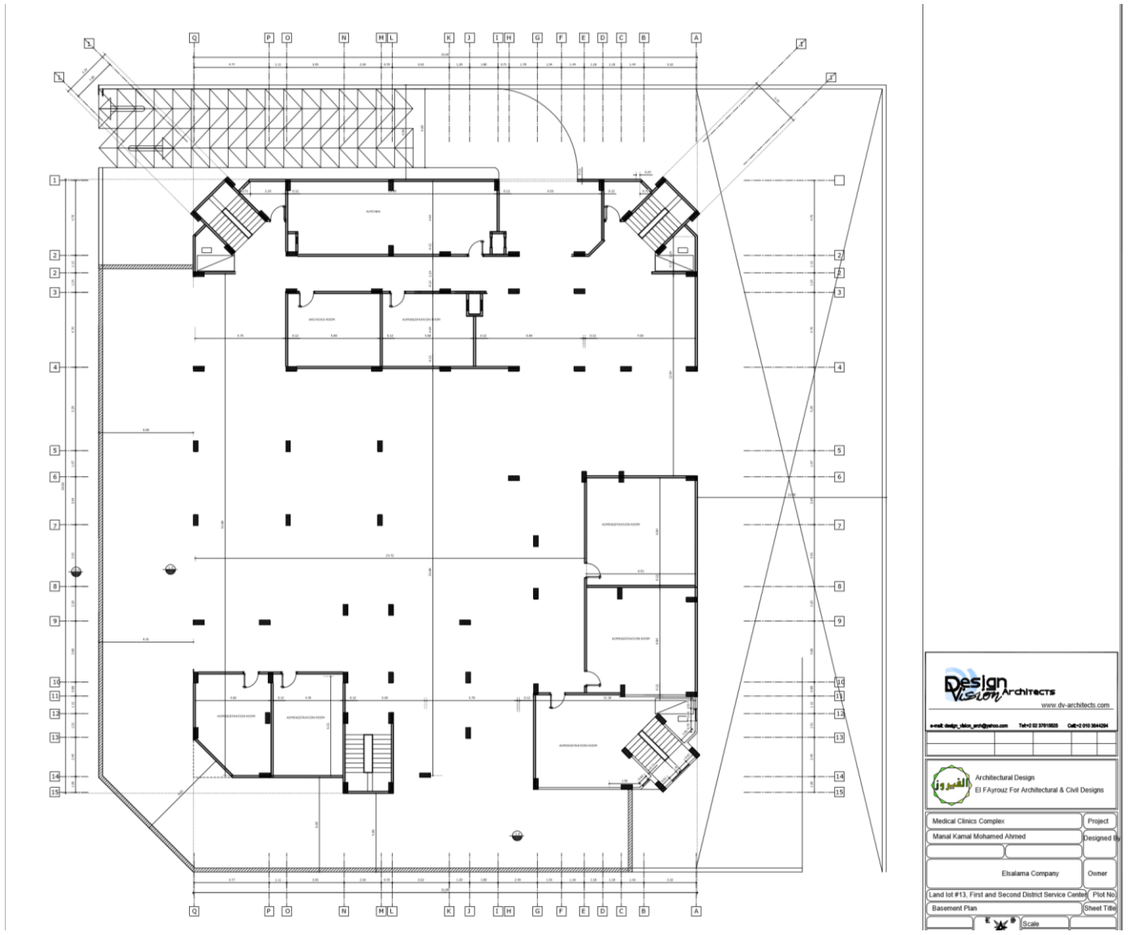
8. ANNEX1: FLOOR PLANS

CURRENT DESIGN FOR THE 2nd DISTRICT BUILDING





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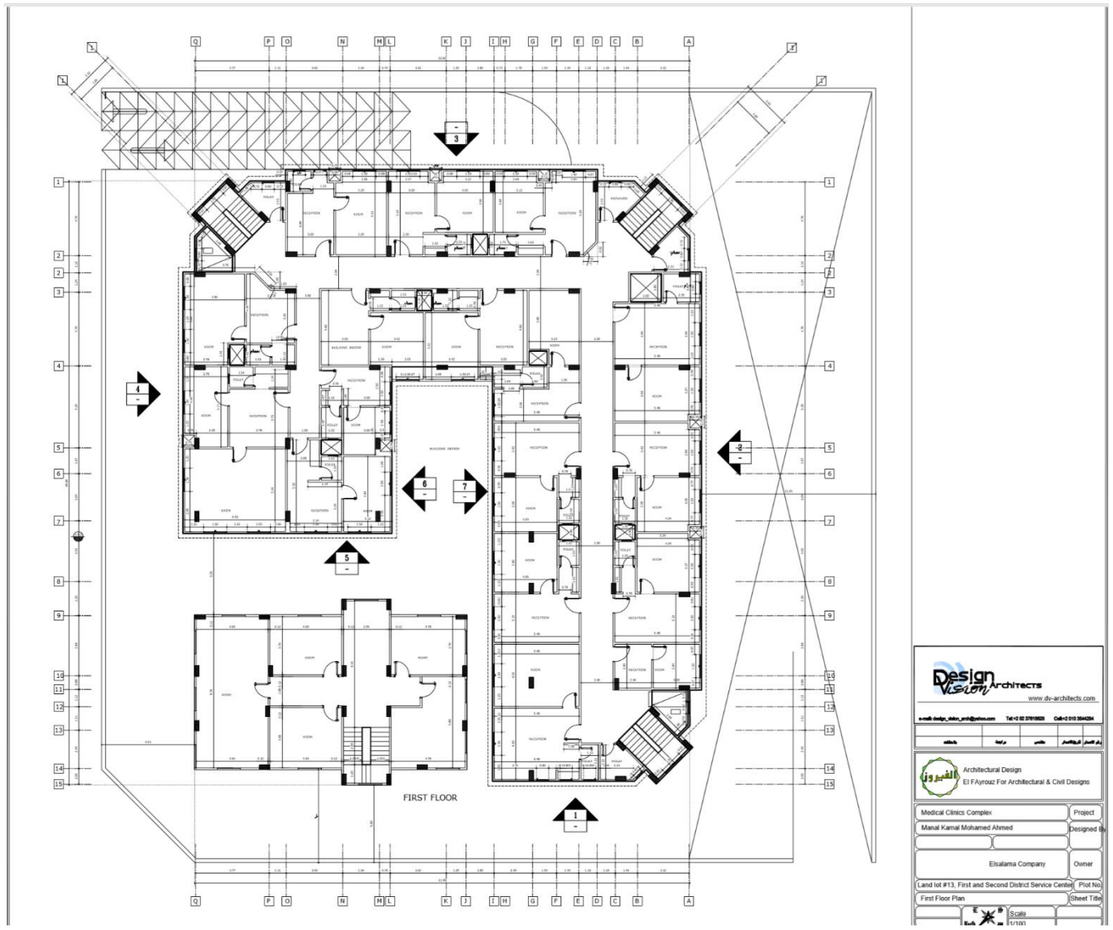
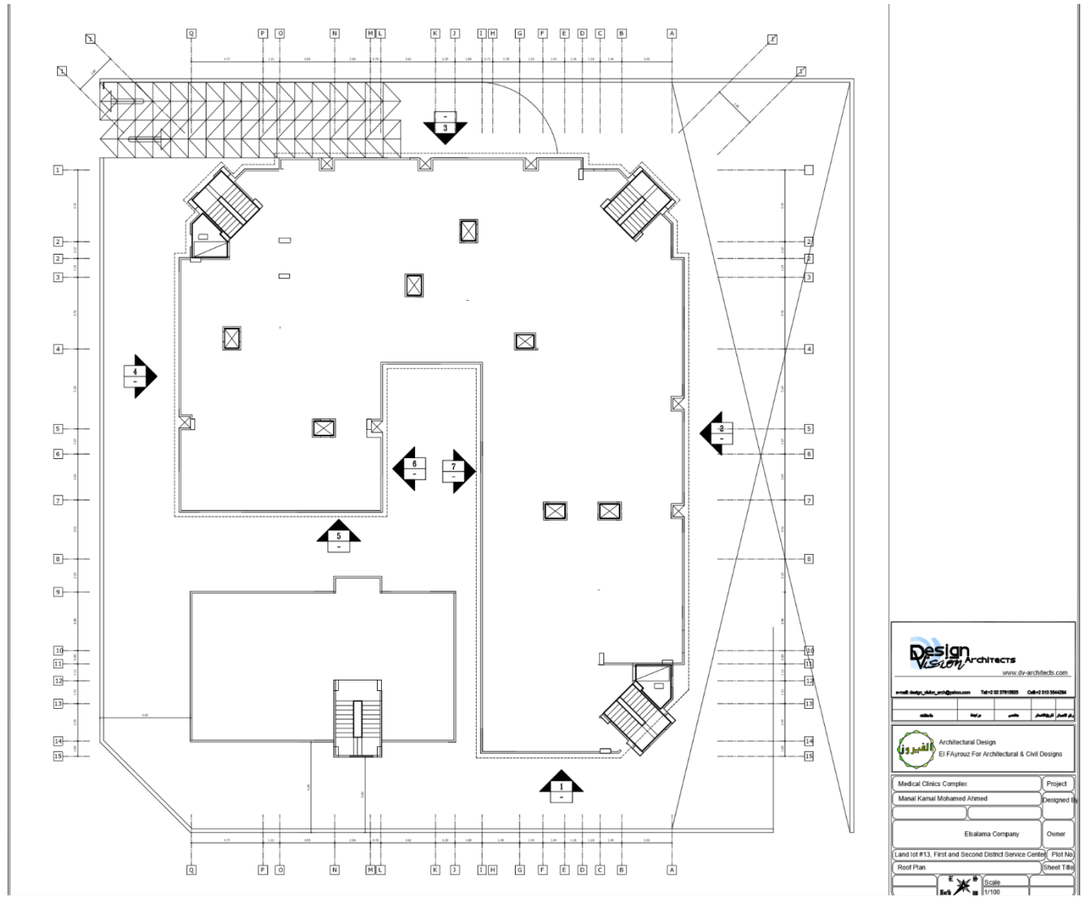
CURRENT DESIGN FOR THE 2nd DISTRICT BUILDING



First Floor Plan (Not to Scale)



Roof Floor Plan (Not to Scale)

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9. ANNEX2: BUIDING PICS

Current Building Exterior Condition

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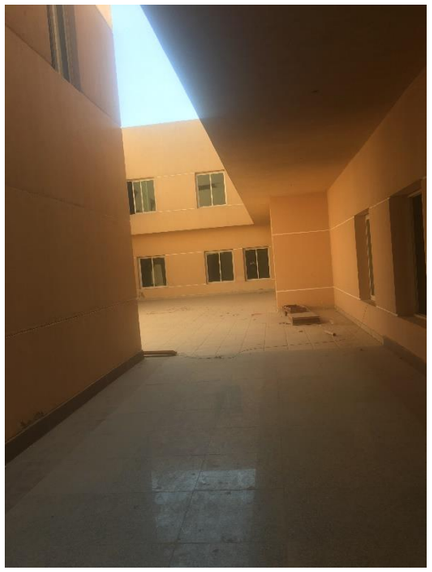
Current Building Interior Condition



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10. ANNEX3: UNHCR General Guidelines for Buildings

Foreword

This document describes the specific requirements of the United Nations High Commissioner for Refugees (UNHCR) for the acquisition of facilities for office accommodation.

It is applicable to all UNHCR office accommodations worldwide, including:

a. *Leased facilities*
b. *Owned facilities.*
c. *Facilities granted in Right of Use (RoU) by other entities (e.g., local governments etc.).*

And in the case of:

a. *Refurbishment, alteration, expansion of existing facilities.*

This Performance Specification is intended to support all UNHCR offices in the preparation of project specific requirements for which complete design services, including all major and minor disciplines, shall be required from specialized Architect/Engineering consultants (A/E).

It shall at all times remain the A/E's responsibility to fully investigate the needs of UNHCR for the specific project, the particular application and to produce designs and documentation entirely fit for purpose and in accordance with the requirements described in the Consultant's Scope of Work (SoW).

This document must be used in conjunction with the UNHCR Design Guide for Office Premises in order to obtain standardized design packages and allow an easier review and quality control process.

In the process for the acquisition of existing facilities (leases or RoU), this Performance Specification must be used as a technical term of reference for the building performance, to be assessed and technically cleared by specialized A/E consultants prior to sign any agreement (leases and/or RoU).

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1. General Requirements.

1.01 General principles and objectives

UNHCR buildings and facilities shall be designed and constructed to best meet the functional, safety, security and environmental needs of the programs they house.

1.02 Environmental and Functional Needs

UNHCR facilities shall provide an environment in which occupants can do their work with maximum efficiency at the optimum level of comfort, taking the following factors into consideration.

a. Arrangement of Space: space relationships within buildings shall be planned to optimize the functions being performed by the occupant.
b. Access for the Disabled: buildings shall meet the needs of individuals with physical disabilities.
c. Lighting: Natural and artificial lighting shall be sufficient to meet requirements of the tasks performed by the occupants.
d. Hygrothermal Comfort: the hygrothermal environment shall be such as to provide safe working and healthful conditions for the occupants and proper climatic conditions for the work being performed.
e. Provision of flexibility and suitable control is necessary. Individual control shall be considered where appropriate.
f. Acoustical Environment: new buildings and alterations shall be planned and designed to minimize noise that disturbs occupants unduly or interferes with their ability to do their work.
g. An adequate level of privacy shall be provided so that occupants can perform their tasks effectively with minimum outside disturbance.
h. Maintenance and Operation: designs shall be based on user needs and maintenance capabilities and shall satisfy the functional requirements for efficient operation of the facility.
i. Materials and projects shall be durable, easily maintained, and appropriate for the intended use.
j. Harmony with local Environment.

1.03 Safety, Health and Security

a. UNHCR facilities shall provide an environment that is safe for occupants, and that offers them maximum protection during emergencies or disasters.
b. Prior to sign any agreement for the acquisition of premises, a certificate of compliance to all safety systems shall comply with the local safety laws, norms and standards must be obtained. In its absence, an equivalent expertise shall be required from the landlord, signed by a professional A/E consultant, or obtained by UNHCR consultant A/E, with regard to:
c. Hygienic Adequacy: facilities must be certified for compliance to Egyptian Codes and specifications , regulations

d. Structural Adequacy: structures shall be adequate for the functions to be performed and the loads imposed by building equipment, occupants, their activities and weather conditions.
e. Structural certifications must be required for both new constructions and alterations to existing ones.
f. When leasing new premises, a structural certification must be required from the landlord or an engineering consultancy contract must be awarded in order to obtain it.
g. Seismic Design: both existing and new facilities must be designed/assessed for the risk of earthquake.
h. Fire Prevention facilities must be certified for compliance to any applicable norms, Egyptiancodes and fire fighting regulations

1.04 Protection against Natural Disaster

a. Security: appropriate security design criteria shall be determined for each project, based on a facility-specific risk assessment (SRA) and an analysis of all available information on security considerations, constraints, and tenant needs.
b. Occupational health and safety design: Design shall be the result of safety analyses and shall address unsafe conditions that cause injury, illness, or property damage.

1.05 Economy

UNHCR facilities shall be designed at the most reasonable cost in terms of combined initial and long-term expenditures, based on best life cycle costs, without compromising other project requirements, considering the following factors:

a. Energy Conservation
b. Maintenance, Operation, Repair, and Replacement Costs.
c. Foster Maximum Competition in Bidding.

1.06 Sustainability

UNHCR is committed to actively support actions leading to creation of a low-carbon economy and sustainable future.

Following objectives relate to buildings:

a. Reduction in energy consumption and Green-House Gas (GHG) emissions.
b. Reduction in water consumption.
c. Reduction in waste production.
d. Monitoring and reporting energy and electricity consumption, and related greenhouse gas emissions, for all UNHCR owned and leased facilities.
e. Improved indoor environmental quality for occupants.
f. Reduced operating and maintenance costs.

2.01 Site Access

A minimum of two accesses to the site are required, on two different sides, leading to two different roads, where possible.

For specific requirements, refer to the MOSS compliance report.

2.02 Drainage System

The site shall include a subsurface storm drainage system, to be connected to the local public network (where available).

All runoff from adjacent properties onto the site shall be included in the storm drainage calculations. The system shall provide for the safety and convenience of occupants, protection of buildings, other improvements and usable lot areas from water damage, flooding and erosion.

Drywells are not desired and will be permitted only on an exceptional basis, if allowed by local codes.

Design shall avoid pounding anywhere on the site.

Surface collection from roads and from unpaved areas should not be channeled in open drainage swales or ditches.

Drainage swales shall not carry runoff across walks in quantities which make them undesirable to use. Walks shall not be used as drainage ways.

Underground rain water drains or pipes must have concrete surroundings in dimensions and quality to support the load of traffic on site. The design and dimension of the rainwater drain must fit the local climate. The outfall of drains and sewers must start at by appropriate size of inspection chamber inside the compound to be connected to the public system. The inspection chambers must have removable lids for surveillance and inspections.

2.03 Sewerage System

Where available, the sanitary sewerage system shall be connected to the public sewer. It shall be capable of collecting and removing all sewerage from the site area without creating any obnoxious conditions.

The building's interior sewer lines may be placed under the building, in an accessible crawl space.

2.04 Water Supply, Distribution and Storage System

The provision of water (whether or not potable) shall be by connection to an existing public system in the area, if available. At the point of connection with the public network a back-flow preventer and a meter shall be installed.

Minimum requirement for water supply per day shall be sized by appropriate calculations.

A water reservoir shall be provided in the event of water shortage. The reservoir shall be capable of providing a minimum 36-hour water supply to the entire compound.

Should the water tank also be used as a supply for fire water, its storage capacity shall allow, in the case of a fire and water shortage, hydrant flow duration of no less than four hours. However, a separated water distribution system for fire protection is preferred.

2.05 Site Power Supply/Distribution and Lighting Systems

The building shall include an adequately sized electrical distribution system (primary and secondary) and connect to available power near or on site.

The entire medium and low voltage electrical distribution system for the premises shall be connected to one single medium voltage power delivery point. The system shall be preferable an underground, radial system, with protection / disconnects on each major feeder system.

Primary feeder cables shall be copper or aluminum and shall have all conductors insulated as indicated by the local power supply company's standards.

Service conductors shall be underground as well. Above-ground system distribution and connection cables are not allowed.

An individual main overload and ground fault protection circuit breakers and panel boards are required for all building circuits. Voltage to be determined according to local regulation.

Transformers, if required, shall be highly efficient, and suitable for their location. The transformer primary for current protection shall be sized in accordance with the applicable standards. The design shall insure that the estimated peak demand on each transformer does not exceed its rated capacity.

A grounding system is required and shall be designed in compliance with applicable codes and standard.

An exterior road and area lighting system shall be provided. Minimum lighting level for common areas shall be 22 lux (2 foot-candles) measured at ground level. High sodium vapor lamps, photocell activated shall be installed at all locations. Fiberglass lighting poles are required along the perimeter fence to provide lighting all along the compound perimeter and towards the inside.

The Design shall include complete single line diagrams with calculations of available short circuit currents at transformers and circuit breakers, connected loads on all transformers and feeders, length and voltage drop on primary lines and secondary service laterals.

An emergency backup generator, sized for the electric load for the warehouse and office building, is required, with underground connections to the building.

3. Landscaping Requirements

The landscaping design should be based on functional aspects and aesthetic considerations. It shall reflect the local landscape, with easily maintainable plants, trees, grass and landscaping materials.

A sight-screened trash collection area (minimum size to be determined on the basis of building occupancy and size) shall be provided for the installation of trash containers. An adequate number of hose bibs shall be provided for cleaning purposes. A drainage connected to the public sewer shall be provided to collect cleaning water. An oil separator for pre-treatment of garbage cleaning water shall be provided, if so required by local regulations.

All outdoor areas shall be paved. Paving material is to be determined on the basis of the envisioned use.

Parking for staff members shall be preferably located inside the area, at the minimum distance from the office building, as required by the security assessment; visitors' parking shall be located outside

The building shall be designed and constructed to a good, modern standard and reflect the image of the UN. The overall exterior appearance of the facility shall match to the surrounding architecture. Variations in textures and use of reveals, offsets, colors, and accents which harmonize with the surrounding environment are required.

A minimum of two access doors are required, on two different sides of the building. In the case of a larger building, the number and size of egress ways shall be determined by A/E consultants on the basis of the building's expected occupancy.

No asbestos or lead-based materials of any kind shall be used in the construction.

Solutions to prevent moisture condensation (insulation, ventilation, etc.) must be illustrated.

The design shall take maximum advantage of natural lighting, which is required at all workstations during daytime, even though it is not required that all workstations be placed by windows.

Existing already. Habitable space (offices and similar) at ground floor must be on a real floor, with a naturally ventilated crawl space underneath, which shall be accessible through and waterproof.

Proper drainage must be provided to avoid rainwater pounding in the crawl space.

The roof surface shall minimize the thermal load, and shall comply with the applicable building codes.

Roof water shall be diverted away from entrances and foundations by means of gutters and downspouts. All downspouts shall be external or located in accessible shafts. They shall also be connected to the main storm drainage system, and equipped with an inspection pit.

Flashings shall be non-ferrous metals.

Glazing shall be clear, to maximize daylight, and be generally shielded from direct sunlight.

For exterior finish materials, emphasis should be placed on the use of low maintenance and durable materials.

A minimum 90 cm high exterior wainscoting is required as reinforcement against damages to the walls, subsequent to the intense traffic of heavy vehicles.

Use of feature materials such as brick, stone, etc., for architectural variety is encouraged, if compatible with local architecture. Cement asbestos shingles or siding is not permitted.

Total wall section, including framing, waterproof barrier, and exterior finish, shall satisfy design requirements for fire protection, seismic and wind resistance, as stipulated in applicable building codes.

A color/material schedule shall be provided, including all colors and materials proposed for the building.

All paints and stains, including color pigments, shall be lead free.

Suggested materials for flooring and skirting are:

a. Office areas: resilient vinyl tiles if avalabl/HDF (wood tiles)/Porceline
b. Toilets & pantries: non-slip ceramic tiling.
c. Service areas and entrances: ceramic tiling.

Skirting in general shall be no less than 100 mm high.

Partition walls can be masonry, gypsum board on metal frame or modular furniture. Material should require a minimum of maintenance and be capable of withstanding moderate physical impact for its common accepted use.

Walls and partitions shall comply with the applicable fire protection regulations and Egyptiian code.

Modular acoustic drop ceilings shall be provided in all areas (with the exception of warehouses), with high reflectivity of light and recessed grid.

Walls shall provide for a sound attenuation with a minimum Sound Transmission class (STC) rating of 50dB.

The false ceilings shall be coordinated with the services to achieve a 280 cm minimum height from the finished floor level.

The office building floor shall be designed and installed from local materials that can provide the following sound transmission ratings:

Airborne sound: STC – 52 - Impact or tapping: STC - 52

Exposed walls in pantries, utility rooms, restrooms etc. shall be finished in ceramic tiles30*40cm/33*45cm from good quality available in local marketcm, up to 1.80 m minimum height. Remaining wall surfaces shall be painted with semi-gloss enamel paint.

Internal doors and window heads shall be at least 220 cm high. Internal doors and frames shall be made of solid wood and veneered plywood, obtained where possible from a certified sustainable source, with aluminum frame. Internal doors may have a vertical strip of glass, max 20cm wide.

External doors shall be fitted with locks. The entire office shall be on a master key system if feasible /applicable. All locks shall have a stainless steel body with a stainless steel bolt. Door fittings will be stainless steel coated with copper..

Room, pantry, toilet and fire-doors shall have high-quality door-closers.

Fire-doors shall be solid core and conform to the applicable standards.

Each room shall have open-able and lockable windows.

Windows shall be made of aluminum, including security grilles and locks.

Glazing beads shall be external, for security in case of blast(not clear).

External glazing shall be clear and double pane. Internal shall be clear or frosted, depending on functional requirements.

All external glazing will be fitted with wrapped 6 mm. Shatter-Resistant Film (SRF). Internal glazing will all be fitted with wrapped 4 mm SRF. The film will be supplied by the UN. It shall be installed during construction at the builder’s care and expense.

Sun-screens and blinds shall be installed if required by local climate conditions and will be supplied by the UN and installed during construction at the builder’s care and expense.

Emergency exit signs shall be provided, combined with emergency lights where possible, to direct staff and visitors safely out of the building in the event of a fire. Other, general signage will be provided and fixed by the UN.

Toilets shall be easy to maintain and hygienic. WC partitions shall be best quality, prefabricated, laminate-faced partitions(if not ll be built from masonry finished with ceramic tiles of same type and measure used for restrooms. Heavy-duty soap dispensers, shelves, electric hand-dryers, wall-mounted paper towel holders and mirrors shall be provided in all toilets.

Walls shall be tiled up to the level of the top of door frames by 40 cm at least to have a minimum height of 2.20m. Floors shall be tiled.

A fully equipped kitchen/lounge is required for facilities with occupancy higher than 15 employees on a permanent basis (including TAs and consultants). The kitchen should be equipped with commodes, shelves, stainless steel dish basins, stove, dishwasher(s), refrigerator(s) and freezer(s). the whole item should be checked by the owner.

5. Heating, Ventilation & Air Conditioning (HVAC) Requirements

The design should utilize current theories of sustainable construction to the greatest extent possible in order to maximize natural ventilation and minimize energy required to condition spaces. Of particular importance in relation to the HVAC requirements are the location of the building and the specifications regarding the building envelope. The building envelope design must be integrated with the mechanical design in order to assure proper sizing of HVAC systemsThe designer shall take this into account the quality and reliability of maintenance services available at site.

HVAC systems shall be controlled by an automated building control system, with thermostats and sensors for each zone.

The target indoor air parameters for the office spaces are:

Relative Humidity	Temperatures (C°)
30%	**23.3 – 26.7**
40%	**23.1 – 26.4**
50%	**22.8 – 26.1**
60%	**22.5 – 25.6**

When these parameters may not be obtainable, the cooling system shall be capable of lowering the temperature by approximately 10-22° Celsius with respect to the external air temperatures.

The ventilation systems shall provide a minimum outdoor air ventilation of 0.57 m^3/minute per person. All air intake points must be located in areas that provide the best available air quality and care must be taken to locate them away from pollutant sources or building exhausts.

Windows in the working spaces shall be in any case operable for natural ventilation.

The equipment should be evaluated for total life cycle cost, inclusive of maintenance, with reference to all requirements.

Services are to be integrated with the ceiling and floor layouts, and will address crucial environmental conditions such as physical safety and security, air quality and acoustic quality.

The HVAC system shall provide and maintain the desired conditions of temperature, humidity, indoor air quality and noise level, proper ventilation of toilets, while plant and equipment rooms shall achieve maximum efficiency for plant operation and conserve energy.

The system will also be complete with all necessary fire safety measures to make the building safe and hazard free.

Toilets, pantries, stores, archives, janitor's room etc. shall be provided with a mechanical exhaust system.

The system shall comply with applicable ASHRAE norms. It shall be designed, installed and adjusted to distribute HVAC to all the rooms in the building, as well as to restrooms, lockers, storage, and showers, in proportion to the calculated heat losses of those spaces.

Complete installation must be safe, energy-saving efficient, and economical in operation; it shall provide an adequate quantity and a uniform distribution of HVAC through the building.

Technical description of energy saving systems must be provided, and supported by a thorough cost/benefit analysis.

Restrooms, shall be provided with mechanical ventilation ducted to the building exterior. Venting into vented joist space or attic space is not permitted. Fans shall:

a. be electric powered;
b. include infiltration seals;
c. be wall or ceiling mounted;
d. be of the centrifugal type;
e. be sized to provide not less than 10 air changes per hour in the space to be ventilated;
f. have a removable front grille and discharge gravity back draft damper.

Fan grilles shall be removable or hinged to allow access to fans and motors for replacement and repairs. Exhaust fans shall be complete with appropriate wall caps.

6. Plumbing Requirements

Plumbing shall consist of complete systems of hot and cold water supply, sanitary fixtures, vents, traps, drains, back-venting of plumbing fixtures and connection to the sewerage system.

Each water closet, and sink, shall have separate cut-off valves.

The plumbing system shall conform to all applicable codes and standards governing back-venting of plumbing fixtures, sizing of waste, vents, drains, and water systems.

The amount of supply piping located under concrete slabs shall be kept at minimum.

Shock absorber units to control water hammer shall be provided on all supply lines.

Air chambers are not acceptable.

Each fixture or piece of equipment requiring connections to the drainage system shall be equipped with a trap, and all fixtures shall be vented.

Wet vents shall not be allowed.

Surface or wall clean-outs shall be provided for each drain.

All plumbing fixtures shall be standard catalogued products of manufacturers regularly engaged in production of such materials or equipment, and shall be the manufacturer's latest standard design.

All piping in finished areas shall be concealed.

Stops shall be provided on all water supply lines to each plumbing fixture, including showers.

Fixtures and fixture trims shall be provided complete with fittings, and trim shall be chromium-plated brass, with a polished bright.

All faucets shall be single control type, with one handle regulating volume and hot/cold water mixing. Faucets shall be of the same design in all bathrooms.

All water closets shall be with two-flush buttons for water savings.

All fixtures shall be vitreous china, Corinne or Granite counter type with integral oval bowl and shall have pop-up drains.

Lavatories shall be counter top rectangular minimum 20x45 cm size or oval, minimum 48x40 cm size.

Minimum required hot and cold water pressure is 6 Pa.

Hot water shall be supplied by a centralized hot water heater with a circulating pump, capable of producing sufficient hot water.

7. Electrical requirements

The buildings shall be fitted with an effective and efficient electrical system to international standards, with 100% diesel generator set back-up and UPS sized for the required business continuity uses. All materials shall be comparable to the best that is freely available, easy to maintain and replaceable.

The electrical system shall provide and maintain desired lighting levels inside the building and outside areas, stabilized power supply to all the lighting fixtures, HVAC and plumbing equipment, raw and UPS power to all the workstations, and a safe working environment.

The system shall also be complete with all necessary safety measures to make the building safe and hazard free.

Lighting shall be provided in all the offices with fluorescent fixtures and PL lamp fixtures to achieve required lighting levels. No tungsten lamp fixtures shall be used. Fixtures shall be recessed non-glare suitable for office use

Lighting conditions shall be sensitively designed and efforts shall be made to admit light into the open work areas, to conserve energy and minimize the electrical load on artificial lighting.

The lighting system shall provide a glare-free environment and shall be engineered to provide some individual control at the work surfaces and offices.

Except when expressly required by the tenant, luminaries shall use compact 'warm white' fluorescent lamps to conserve energy and reduce maintenance.

Emergency lighting with battery power-supplies shall be provided, to illuminate corridors, staircases and areas outside the buildings, as required for safe evacuation of the building.

Dimmable/non-dimmable lighting controls shall be provided in the training center.

Power sockets shall be provided to suit an 'electronic office' environment.

Power shall be distributed to various load centers; separate panels shall be provided for lighting load, power outlets load and UPS outlets and be connected to floor distribution boards.

The interior distribution shall be in external conduits with modular outlets.

Each workstation shall be equipped with the following:

a. Electrical outlets: 2
b. Data/Communication: 2

Every 3 workstation there shall be a spare box, including:

a. Electrical outlets: 2
b. Electrical outlets (UPS connected): 2
c. Data/Communication: 2

Electrical outlets connected to the UPS system shall be of different color, in order to be clearly identifiable.

The wiring for lighting fixtures and outlets shall be PVC insulated copper conductor wires in conduit.

Exterior lighting shall be provided at all building entrances, switched from the security control room.

Wall switch operated ceiling light fixtures of good office quality, and equipped with compact fluorescent lamps, rated at 2700°K shall be provided in all rooms, including corridors, sanitary (restrooms, lavatories, showers), open plan offices and common areas.

Minimum lighting levels are:

a. Office rooms, kitchens, computer server rooms, working group rooms, training rooms and internet cafes: 500 Lux per m^2
b. Waiting rooms, guards, dressing rooms, toilets, cleaning rooms, personal rest- and living rooms: 400 Lux per m^2
c. Warehouses, stores andgarage: 250 Lux per m^2

Restrooms, lavatories and shower electrical systems shall be independent from the rest of the floor and in compliance with the applicable regulations.

Exit/directional signs with built-in battery backup shall be provided at appropriate locations along escape routes.

A grounding system shall be provided in accordance with ISO 3043-1987 with latest amendments and other statutory regulations.

Every power outlet, switch, lighting fixture shall be provided with insulated copper conductor of required size for grounding.

The raceways shall not be used as a grounding conductor.

Lightning protection shall be installed and will consist of copper air terminators, down conductors, copper clad steel or solid copper rods in earth pits, as applicable standards.

In order to minimize energy consumption, the contractor shall provide:

- High efficient transformers.
- Power factor improvement system.
- Conductors with voltage drop not greater than 3%.
- Energy efficient motors.
- Electrical loads well balanced.
- Timers and control systems.
- Twilight sensors.
- Electronic ballasts.
- Occupancy sensors.
- Light colors for walls, floors and ceilings to increase utilization of light.
- Daylight in transition zones.
- High-pressure sodium light sources for exterior floodlighting.
- When incandescent lights are necessary, reflector halogen lamps.
- Compact fluorescent lamps.
- Highest cost-effective system to provide heat, air conditioning and hot domestic water. The system shall be designed in accordance with the ASHRAE 62-99 regulation and shall prevent condensation.

- Highest cost-effective pipe insulation.
- Highest cost-effective thermal insulation in compliance with ASHRAE 62-99.
- Prevention of condensation.

Overall security design needs to properly balance the efforts applied to the defense against a variety of threats.

The "Blast Assessment Guidelines" are intended to provide guidelines for the UN and agency focal points on the implementation of the "United Nations Premises Blast Mitigation Policy (PBMP)". It is therefore important that the personnel for the implementation of the PBMP are comfortable with the Security Risk Assessment (SRA) methodology and the Minimum Operating Security Standard (MOSS).

The requirements in this paragraph do not replace those included in the MOSS compliance report to be prepared by FSS staff. They only provide for minimum operational requirements. In the case of a conflict between this Performance Specification and MOSS requirements, the latter shall govern.[1]

8.01 Risk Assessment

All disciplines related to the blast resistance design of buildings shall be closely coordinated with UNHCR Field Safety Section (FSS) such as:

a. Threat Assessment; which evaluates the likelihood of the threat.

b. Vulnerability Assessment; which examines the vulnerability of a structure and also quantifies the threat in terms of loss.

c. Risk Analysis; which combines these two components to determine the overall consequences/impact.

The main objective of a blast strengthening project is to minimize the loss of life by reducing local structural failures, controlling flying debris, and preventing progressive collapse until the building can be evacuated.

Consider the conflicts between the structural performance preferred for seismic events and that preferred for explosions (except a few similarities). The primary focus is on building shape, placement, exterior ornamentation, and the functional layout of the interior.

8.02 Vehicle access

Two remote controlled, electric sliding gates are required for the vehicle exit and access lanes. Gates shall be operated from the guard post. Traffic bars shall be installed at each lane, and operated by proximity card readers and manually (locally and from guard post). Lanes shall allow for simultaneous access and egress of two heavy long vehicles.

8.03 Pedestrian Access

All pedestrian entrances shall be controlled by UN Security and shall provide for:

[1] As reference, please consult the following documents:
- Glazing, SRF application
- Rapid Assessment Guidelines (RAG)
- Blast Assessment Guidelines (BAG)

a. Bullet proof ID check windows with no access from the exterior of the compound.

b. Minimum 1 double entry turnstiles on entrance/exit of the building and 1 single exit turnstiles on exit footpaths.

c. Metal detector.[2]

d. X-Ray luggage checking machine.

8.04 Site fencing

Site fencing structure will from reinforced concrete columns with adequate foundations and masonry walls, plastered and finished with the same finishing accent and materials of the building elevations, and shall have the maximum allowable height permitted from local authorities having jurisdiction over the building, this height should not be less than 2m.

Specific requirements shall be issued by the local Security Officer.

8.05 Shatter resistant Film

All external glazing will be fitted with wrapped 6 mm. Shatter-Resistant Film (SRF). Internal glazing will all be fitted with wrapped 4 mm SRF. The film will be supplied by UN. It shall be installed during construction at builder's care and expense".

Please be advised that SRF is always described in terms of "mil", which is a measurements of thickness as one-thousandth of an inch. One mil equals 25.4 microns. SRF ranges in thickness from 4-mil (usually considered the minimum thickness) to upward of 15-mil, and thicker.

9. Special Systems Requirements

The requirements in this paragraph do not replace those to be prepared by UNHCR Communications staff. They only provide for minimum operational requirements. In the case of a conflict between this Performance Specification and Communications requirements, the latter shall govern.

A broadband telecommunication system is required.

A centralized satellite TV antenna is required, to serve a minimum of three (3) television (TV) and radio sets in the building (locations to be indicated in the agreement).

TV fixtures to be provided by UNHCR.

[2] This requirement shall be confirmed by the local Security Officer

10. Fire Protection Requirements

All UNHCR facilities must comply with the Host Nation's regulations, norms and laws for Fire protection.

This performance specification only provides for minimum operational requirements. In the case of a conflict between this Performance Specification and Host Nation's requirements, the latter shall govern.

Intelligent fire detection and alarm systems with addressable smoke/heat detectors, bell push, hooters, fault isolating module, intelligent fire alarm panel, shall be provided.

In case of fire, the detectors shall sense the fire and give an indication in the panel where the fire has taken place and at the same time an alarm shall be given in the entire building, or zone wise. Fire extinguishers shall be provided on each floor, per the selected applicable regulation, installed in wall encased cabinets.

The building shall be 100% covered by sprinklers. A water reservoir for fire protection purposes is required, sized to meet the demand for the building. The reservoir shall be located underground. Size of mechanical equipment for fire suppression shall be determined by designers.

The minimum water quantity required for fire protection shall be available at all times. For fire protection and irrigation purposes, the use of non-potable water is possible. In this case, the two distribution systems shall be totally independent.

Exterior faucets and fire hydrants shall be located through the site at a distance not longer than m 25.00 from each other (faucets) and m 50.00 (hydrants).

Fire hydrants shall be in compliance with local standards for connection to fire protection vehicles.

11. LAN Requirements

LAN connections are required as follows:

a. Offices: 10 workstations each.
b. Training center and internet café: 20 workstations each.

Required outlet redundancy is described at paragraph 7.

Attachment A

List of acronyms & Abbreviations

A/E	Architect/Engineering consultant (generally a company including all basic design disciplines).
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers.
FSS	UNHCR Field Safety Section..
IMU	Infrastructure Management Unit.
ISO	International Organization for Standardization.
K°	Unit of measurement for temperature.
LAN	Local Area Network.
Lux	Unit of measurement for lighting.
MOSS	Minimum Operating Security Standards.
Pa	Pascal.
PL	Type Compact Fluorescent light bulbs
RoU	Right of Use (used for facilities granted free of charge to UNHCR by other entities, e.g. local governments).
SRF	Shatter-Resistant Film.
SMS	Supply Management Services.
SoW	Scope of Work.
SRA	Specific Risk Assessment.
STC	Sound Transmission Class.
UN	United Nations.
UNHCR	United Nations High Commissioner for Refugees.
UPS	Uninterrupted Power System.
TV	Television