

INVITATION TO BID

**Provision of Civil Works to undertake the Construction and Renovations
Works for UNOCHA Building (Lot 1) and for UNDP Building (Lot 2)**

Damascus, Syria



United Nations Development Programme

January, 2017

Section 1. Letter of Invitation

Damascus, Syria
January 3, 2017

Construction and Renovations Works for UNOCHA Building (Lot 1) and for UNDP Building (Lot 2)

Reference: UNDP-SYR-ITB-002-17

Dear Mr. /Ms.:

The United Nations Development Programme (UNDP) hereby invites you to submit a Bid to this Invitation to Bid (ITB) for the above-referenced subject.

This ITB includes the following documents:

- Section 1 – This Letter of Invitation
- Section 2 – Instructions to Bidders (including Data Sheet)
- Section 3 – Scope of Works
- Section 4 – Bid Submission Form
- Section 5 – Documents Establishing the Eligibility and Qualifications of the Bidder
- Section 6 – Technical Bid Form
- Section 7 – Price Schedule Form
- Section 8 – Form for Performance Security
- Section 9 – Contract to be Signed, including General Terms and Conditions

Your offer, comprising of a Technical Bid and Price Schedule, together in a sealed envelope, should be submitted in accordance with Section 2.

You are kindly requested to submit an acknowledgment letter to UNDP to the following address:

United Nations Development Programme
walid.okla@undp.org
Walid Okla; Procurement Associate
cc: syria.procurement@undp.org

The letter should be received by UNDP no later than **9 January 2017**. The same letter should advise whether your company intends to submit a Bid. If that is not the case, UNDP would appreciate your indicating the reason, for our records.

If you have received this ITB through a direct invitation by UNDP, transferring this invitation to another firm requires notifying UNDP accordingly.

Should you require any clarification, kindly communicate with the contact person identified in the attached Data Sheet as the focal point for queries on this ITB.

UNDP looks forward to receiving your Bid and thanks you in advance for your interest in UNDP procurement opportunities.

Yours sincerely,

Mirvat Hammoud; Head of Procurement


4 / 1 / 2017

Section 2: Instruction to Bidders

Definitions

- a) *“Bid”* refers to the Bidder’s response to the Invitation to Bid, including the Bid Submission Form, Technical Bid and Price Schedule and all other documentation attached thereto as required by the ITB.
- b) *“Bidder”* refers to any legal entity that may submit, or has submitted, a Bid for the supply of goods and provision of related services requested by UNDP.
- c) *“Contract”* refers to the legal instrument that will be signed by and between the UNDP and the successful Bidder, all the attached documents thereto, including the General Terms and Conditions (GTC) and the Appendices.
- d) *“Country”* refers to the country indicated in the Data Sheet.
- e) *“Data Sheet”* refers to such part of the Instructions to Bidders used to reflect conditions of the tendering process that are specific for the requirements of the ITB.
- f) *“Day”* refers to calendar day.
- g) *“Goods”* refer to any tangible product, commodity, article, material, wares, equipment, assets or merchandise that UNDP requires under this ITB.
- h) *“Government”* refers to the Government of the country where the goods and related services provided/rendered specified under the Contract will be delivered or undertaken.
- i) *“Instructions to Bidders”* refers to the complete set of documents which provides Bidders with all information needed and procedures to be followed in the course of preparing their Bid
- j) *“ITB”* refers to the Invitation to Bid consisting of instructions and references prepared by UNDP for purposes of selecting the best supplier or service provider to fulfil the requirement indicated in the Schedule of Requirements and Technical Specifications.
- k) *“LOI”* (Section 1 of the ITB) refers to the Letter of Invitation sent by UNDP to Bidders.
- l) *“Material Deviation”* refers to any contents or characteristics of the bid that is significantly different from an essential aspect or requirement of the ITB, and (i) substantially alters the scope and quality of the requirements; (ii) limits the rights of UNDP and/or the obligations of the offeror; and (iii) adversely impacts the fairness and principles of the procurement process, such as those that compromise the competitive position of other offerors.
- m) *“Schedule of Requirements and Technical Specifications”* refers to the document included in this ITB as Section 3 which lists the goods required by UNDP, their specifications, the related services, activities, tasks to be performed, and other information pertinent to UNDP’s receipt and acceptance of the goods.
- n) *“Services”* refers to the entire scope of tasks related or ancillary to the completion or delivery of the goods required by UNDP under the ITB.
- o) *“Supplemental Information to the ITB”* refers to a written communication issued by UNDP to prospective Bidders containing clarifications, responses to queries received from prospective Bidders, or changes to be

made in the ITB, at any time after the release of the ITB but before the deadline for the submission of Bid.

A. GENERAL

1. UNDP hereby solicits Bids as a response to this Invitation to Bid (ITB). Bidders must strictly adhere to all the requirements of this ITB. No changes, substitutions or other alterations to the rules and provisions stipulated in this ITB may be made or assumed unless it is instructed or approved in writing by UNDP in the form of Supplemental Information to the ITB.
2. Submission of a Bid shall be deemed as an acknowledgement by the Bidder that all obligations stipulated by this ITB will be met and, unless specified otherwise, the Bidder has read, understood and agreed to all the instructions in this ITB.
3. Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of any Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this ITB.
4. UNDP implements a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical practices, and obstruction. UNDP is committed to preventing, identifying and addressing all acts of fraud and corrupt practices against UNDP as well as third parties involved in UNDP activities. (See http://www.undp.org/about/transparencydocs/UNDP_Anti_Fraud_Policy_English_FINAL_june_2011.pdf and http://www.undp.org/content/undp/en/home/operations/procurement/procurement_protest/ for full description of the policies)
5. In responding to this ITB, UNDP requires all Bidders to conduct themselves in a professional, objective and impartial manner, and they must at all times hold UNDP's interests paramount. Bidders must strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. All Bidders found to have a conflict of interest shall be disqualified. Without limitation on the generality of the above, Bidders, and any of their affiliates, shall be considered to have a conflict of interest with one or more parties in this solicitation process, if they:
 - 5.1 **Are, or have been associated in the past, with a firm or any of its affiliates which have been engaged UNDP to provide services for the preparation of the design, Schedule of Requirements and Technical Specifications, cost analysis/estimation, and other documents to be used for the procurement of the goods and related services in this selection process;**
 - 5.2 **Were involved in the preparation and/or design of the programme/project related to the goods and related services requested under this ITB; or**
 - 5.3 **Are found to be in conflict for any other reason, as may be established by, or at the discretion of, UNDP.**

In the event of any uncertainty in the interpretation of what is potentially a conflict of interest, Bidders must disclose the condition to UNDP and seek UNDP's confirmation on whether or not such conflict exists.

6. Similarly, the following must be disclosed in the Bid:
 - 6.1 Bidders who are owners, part-owners, officers, directors, controlling shareholders, or key personnel who are family of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving the goods and related services under this ITB; and
 - 6.4 Others that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices.

Failure of such disclosure may result in the rejection of the Bid.

7. The eligibility of Bidders that are wholly or partly owned by the Government shall be subject to UNDP's further evaluation and review of various factors such as being registered as an independent entity, the extent of Government ownership/share, receipt of subsidies, mandate, access to information in relation to this ITB, and others that may lead to undue advantage against other Bidders, and the eventual rejection of the Bid.
8. All Bidders must adhere to the UNDP Supplier Code of Conduct, which may be found at this link: <http://web.ng.undp.org/procurement/undp-supplier-code-of-conduct.pdf>

B. CONTENTS OF BID

9. Sections of Bid

Bidders are required to complete, sign and submit the following documents:

- 9.1 Bid Submission Cover Letter Form (see ITB Section 4);
- 9.2 Documents Establishing the Eligibility and Qualifications of the Bidder (see ITB Section 5);
- 9.3 Technical Bid (see prescribed form in ITB Section 6);
- 9.4 Price Schedule (see prescribed form in ITB Section 7);
- 9.5 Bid Security, if applicable (if required and as stated in the DS nos. 9-11, see prescribed Form in ITB Section 8);
- 9.6 Any attachments and/or appendices to the Bid (including all those specified under the **Data Sheet**)

10. Clarification of Bid

- 10.1 Bidders may request clarification of any of the ITB documents no later than the number of days indicated in the **Data Sheet** (DS no. 16) prior to the Bid submission date. Any request for clarification must be sent in writing via courier or through electronic means to the UNDP address indicated in the **Data Sheet** (DS no. 17). UNDP will respond in writing, transmitted by electronic means and will transmit copies of the response (including an explanation of the query but without identifying the source of inquiry) to all Bidders who have provided confirmation of their intention to submit a Bid.
- 10.2 UNDP shall endeavor to provide such responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of UNDP to extend the submission date of the Bid, unless UNDP deems that such an extension is justified and necessary.

11. Amendment of Bid

- 11.1 At any time prior to the deadline for submission of Bid, UNDP may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of a Supplemental Information to the ITB. All prospective Bidders will be notified in writing of all changes/amendments and additional instructions through Supplemental Information to the ITB and through the method specified in the **Data Sheet** (DS No. 18).
- 11.2 In order to afford prospective Bidders reasonable time to consider the amendments in preparing their Bid, UNDP may, at its discretion, extend the deadline for submission of Bid, if the nature of the amendment to the ITB justifies such an extension.

C. PREPARATION OF BID

12. Cost

The Bidder shall bear any and all costs related to the preparation and/or submission of the Bid, regardless of whether its Bid was selected or not. UNDP shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.

13. Language

The Bid, as well as any and all related correspondence exchanged by the Bidder and UNDP, shall be written in the language (s) specified in the **Data Sheet** (DS No. 4). Any printed literature furnished by the Bidder written in a language other than the language indicated in the **Data Sheet**, must be accompanied by a translation in the preferred language indicated in the **Data Sheet**. For purposes of interpretation of the Bid, and in the event of discrepancy or inconsistency in meaning, the version translated into the preferred language shall govern. Upon conclusion of a contract, the language of the contract shall govern the relationship between the contractor and UNDP.

14. Bid Submission Form

The Bidder shall submit the Bid Submission Form using the form provided in Section 4 of this ITB.

15. Technical Bid Format and Content

Unless otherwise stated in the **Data Sheet** (DS no. 28), the Bidder shall structure the Technical Bid as follows:

- 15.1 Expertise of Firm/Organization – this section should provide details regarding management structure of the organization, organizational capability/resources, and experience of organization/firm, the list of projects/contracts (both completed and on-going, both domestic and international) which are related or similar in nature to the requirements of the ITB, manufacturing capacity of plant if Bidder is a manufacturer, authorization from the manufacturer of the goods if Bidder is not a manufacturer, and proof of financial stability and adequacy of resources to complete the delivery of goods and provision of related services required by the ITB (see ITB Clause 18 and DS No. 26 for further details). The same shall apply to any other entity participating in the ITB as a Joint Venture or Consortium.
- 15.2 Technical Specifications and Implementation Plan – this section should demonstrate the Bidder's response to the Schedule of Requirements and Technical Specifications by identifying the specific components proposed; how each of the requirements shall be met point by point; providing a detailed specification and description of the goods required, plans and drawings where needed; the essential performance characteristics, identifying the works/portions of the work that will be subcontracted; a list of the major subcontractors, and demonstrating how the bid meets or exceeds the requirements, while ensuring appropriateness of the bid to the local conditions and the rest of the project operating environment during the entire life of the goods provided. Details of technical bid must be laid out and supported by an Implementation Timetable, including Transportation and Delivery Schedule where needed, that is within the duration of the contract as specified in the **Data Sheet** (DS noS. 29 and 30).

Bidders must be fully aware that the goods and related services that UNDP require may be transferred, immediately or eventually, by UNDP to the Government partners, or to an entity nominated by the latter, in accordance with UNDP's policies and procedures. All bidders are therefore required to submit the following in their bids:

- a) A statement of whether any import or export licences are required in respect of the goods to be purchased or services to be rendered, including any restrictions in the country of origin, use or dual use nature of the goods or services, including any disposition to end users;
- b) Confirmation that the Bidder has obtained license of this nature in the past, and have an expectation of obtaining all the necessary licenses, should their bid be rendered the most responsive; and
- c) Complete documentation, information and declaration of any goods classified or may be classified as “Dangerous Goods”.

15.3 Management Structure and Key Personnel – This section should include the comprehensive curriculum vitae (CVs) of key personnel that will be assigned to support the implementation of the technical bid, clearly defining their roles and responsibilities. CVs should establish competence and demonstrate qualifications in areas relevant to the requirements of this ITB.

In complying with this section, the Bidder assures and confirms to UNDP that the personnel being nominated are available to fulfil the demands of the Contract during its stated full term. If any of the key personnel later becomes unavailable, except for unavoidable reasons such as death or medical incapacity, among other possibilities, UNDP reserves the right to render the Bid non-responsive. Any deliberate substitution of personnel arising from unavoidable reasons, including delay in the implementation of the project of programme through no fault of the Bidder, shall be made only with UNDP’s acceptance of the justification for substitution, and UNDP’s approval of the qualification of the replacement who shall be either of equal or superior credentials as the one being replaced.

15.4 Where the **Data Sheet** requires the submission of the Bid Security, the Bid Security shall be included along with the Technical Bid. The Bid Security may be forfeited by UNDP, and reject the Bid, in the event of any or any combination of the following conditions:

- a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the **Data Sheet** (DS no. 11), or;
- b) If the Bid Security amount is found to be less than what is required by UNDP as indicated in the **Data Sheet** (DS no. 9), or;
- c) In the case the successful Bidder fails:
 - i. to sign the Contract after UNDP has awarded it;
 - ii. to comply with UNDP’s variation of requirement, as per ITB Clause 35; or
 - iii. to furnish Performance Security, insurances, or other documents that UNDP may require as a condition to rendering effective the contract that may be awarded to the Bidder.

16. Price Schedule

The Price Schedule shall be prepared using the attached standard form (Section 7). It shall list all major cost components associated with the goods and related services, and the detailed breakdown of such costs. All goods and services described in the Technical Bid must be priced separately on a one-to-one correspondence. Any output and activities described in the Technical Bid but not priced in the Price Schedule, shall be assumed to be included in the prices of the items or activities, as well as in the final total price of the bid.

17. Currencies

All prices shall be quoted in the currency indicated in the **Data Sheet** (DS no. 15). However, where Bids are quoted in different currencies, for the purposes of comparison of all Bid:

- 17.1 UNDP will convert the currency quoted in the Bid into the UNDP preferred currency, in accordance with the prevailing UN operational rate of exchange on the last day of submission of Bid; and
- 17.2 In the event that the Bid found to be the most responsive to the ITB requirement is quoted in another currency different from the preferred currency as per **Data Sheet** (DS no. 15), then UNDP shall reserve the right to award the contract in the currency of UNDP's preference, using the conversion method specified above.

18. Documents Establishing the Eligibility and Qualifications of the Bidder

- 18.1 The Bidder shall furnish documentary evidence of its status as an eligible and qualified vendor, using the forms provided under Section 5, Bidder Information Forms. In order to award a contract to a Bidder, its qualifications must be documented to UNDP's satisfactions. These include, but are not limited to the following:
- a) That, in the case of a Bidder offering to supply goods under the Contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' manufacturer or producer to supply the goods in the country of final destination;
 - b) That the Bidder has the financial, technical, and production capability necessary to perform the Contract; and
 - c) That, to the best of the Bidder's knowledge, it is not included in the UN 1267 List or the UN Ineligibility List, nor in any and all of UNDP's list of suspended and removed vendors.
- 18.2 Bids submitted by two (2) or more Bidders shall all be rejected by UNDP if they are found to have any of the following:
- a) they have at least one controlling partner, director or shareholder in common; or
 - b) any one of them receive or have received any direct or indirect subsidy from the other/s; or
 - c) they have the same legal representative for purposes of this ITB; or
 - d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of, another Bidder regarding this ITB process;
 - e) they are subcontractors to each other's bid, or a subcontractor to one bid also submits another Bid under its name as lead Bidder; or
 - f) an expert proposed to be in the bid of one Bidder participates in more than one Bid received for this ITB process. This condition does not apply to subcontractors being included in more than one Bid.

19. Joint Venture, Consortium or Association

If the Bidder is a group of legal entities that will form or have formed a joint venture, consortium or association at the time of the submission of the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the joint venture jointly and severally, and this shall be duly evidenced by a duly notarized Agreement among the legal entities, which shall be submitted along with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all entities that comprise the joint venture.

After the bid has been submitted to UNDP, the lead entity identified to represent the joint venture shall not be altered without the prior written consent of UNDP. Furthermore, neither the lead entity nor the member entities of the joint venture can:

- a) Submit another Bid, either in its own capacity; nor

- b) As a lead entity or a member entity for another joint venture submitting another Bid.

The description of the organization of the joint venture/consortium/association must clearly define the expected role of each of the entity in the joint venture in delivering the requirements of the ITB, both in the bid and in the Joint Venture Agreement. All entities that comprise the joint venture shall be subject to the eligibility and qualification assessment by UNDP.

Where a joint venture is presenting its track record and experience in a similar undertaking as those required in the ITB, it should present such information in the following manner:

- a) Those that were undertaken together by the joint venture; and
- b) Those that were undertaken by the individual entities of the joint venture expected to be involved in the performance of the services defined in the ITB.

Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the joint venture or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials.

If the Bid of a joint venture is determined by UNDP as the most responsive Bid that offers the best value for money, UNDP shall award the contract to the joint venture, in the name of its designated lead entity, who shall sign the contract for and on behalf of all the member entities.

20. Alternative Bid

Unless otherwise specified in the **Data Sheet** (DS nos. 5 and 6), alternative bid shall not be considered. Where the conditions for its acceptance are met, or justifications are clearly established, UNDP reserves the right to award a contract based on an alternative bid.

21. Validity Period

- 21.1 Bid shall remain valid for the period specified in the **Data Sheet** (DS no. 8), commencing on the submission deadline date also indicated in the **Data Sheet** (DS no. 21). A Bid valid for a shorter period shall be immediately rejected by UNDP and rendered non-responsive.
- 21.2 In exceptional circumstances, prior to the expiration of the Bid validity period, UNDP may request Bidders to extend the period of validity of their Bid. The request and the responses shall be made in writing, and shall be considered integral to the Bid.

22. Bidder's Conference

When appropriate, a Bidder's conference will be conducted at the date, time and location specified in the **Data Sheet** (DS no. 7). All Bidders are encouraged to attend. Non-attendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder's conference will be either posted on the UNDP website, or disseminated to the individual firms who have registered or expressed interest with the contract, whether or not they attended the conference. No verbal statement made during the conference shall modify the terms and conditions of the ITB unless such statement is specifically written in the Minutes of the Conference, or issued/posted as an amendment in the form of a Supplemental Information to the ITB.

D. SUBMISSION AND OPENING OF BID

23. Submission

23.1 The Technical Bid and the Price Schedule **must be submitted together and sealed together in one and the same envelope**, delivered either personally, by courier, or by electronic method of transmission. If submission will not be done by electronic means, the Technical Bid and Price Schedule must be sealed together in an envelope whose external side must :

- a) Bear the name of the Bidder;
- b) Be addressed to UNDP as specified in the **Data Sheet** (DS no.20); and
- c) Bear a warning not to open before the time and date for Bid opening as specified in the **Data Sheet** (DS no. 24).

If the envelope is not sealed nor labeled as required, the Bidder shall assume the responsibility for the misplacement or premature opening of Bid due to improper sealing and labeling by the Bidder.

23.2 Bidders must submit their Bid in the manner specified in the **Data Sheet** (DS nos. 22 and 23). When the Bid is expected to be in transit for more than 24 hours, the Bidder must ensure that sufficient lead time has been provided in order to comply with UNDP's deadline for submission. UNDP shall indicate for its record that the official date and time of receiving the Bid is the actual date and time when the said Bid has physically arrived at the UNDP premises indicated in the **Data Sheet** (DS no. 20).

23.3 Bidders submitting Bid by mail or by hand shall enclose the original and each copy of the Bid, in separate sealed envelopes, duly marking each of the envelopes as "Original Bid" and the others as "Copy of Bid". The two envelopes, consisting of original and copies, shall then be sealed in an outer envelope. The number of copies required shall be as specified in the **Data Sheet** (DS no. 19). In the event of any discrepancy between the contents of the "Original Bid" and the "Copy of Bid", the contents of the original shall govern. The original version of the Bid shall be signed or initialed by the Bidder or person(s) duly authorized to commit the Bidder on every page. The authorization shall be communicated through a document evidencing such authorization issued by the highest official of the firm, or a Power of Attorney, accompanying the Bid.

23.4 Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder accepts the General Contract Terms and Conditions of UNDP as attached hereto as Section 11.

24. Deadline for Submission of Bid and Late Bids

Bid must be received by UNDP at the address and no later than the date and time specified in the **Data Sheet** (DS no. 20 and 21).

UNDP shall not consider any Bid that arrives after the deadline for submission of Bid. Any Bid received by UNDP after the deadline for submission of Bid shall be declared late, rejected, and returned unopened to the Bidder.

25. Withdrawal, Substitution, and Modification of Bid

25.1 Bidders are expected to have sole responsibility for taking steps to carefully examine in detail the full consistency of its Bid to the requirements of the ITB, keeping in mind that material deficiencies in providing information requested by UNDP, or lack clarity in the description of goods and related services to be provided, may result in the rejection of the Bid. The Bidder shall assume any

responsibility regarding erroneous interpretations or conclusions made by the Bidder in the course of understanding the ITB out of the set of information furnished by UNDP.

- 25.2 A Bidder may withdraw, substitute or modify its Bid after it has been submitted by sending a written notice in accordance with ITB Clause 23, duly signed by an authorized representative, and shall include a copy of the authorization (or a Power of Attorney). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be received by UNDP prior to the deadline for submission and submitted in accordance with ITB Clause 23 (except that withdrawal notices do not require copies). The respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," or "MODIFICATION".
- 25.3 Bid requested to be withdrawn shall be returned unopened to the Bidders.
- 25.4 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bid and the expiration of the period of Bid validity specified by the Bidder on the Bid Submission Form or any extension thereof.

26. Bid Opening

UNDP will open the Bid in the presence of an ad-hoc committee formed by UNDP of at least two (2) members. If electronic submission is permitted, any specific electronic Bid opening procedures shall be as specified in the **Data Sheet** (DS no. 23).

The Bidders' names, modifications, withdrawals, the condition of the envelope labels/seals, the number of folders/files and all other such other details as UNDP may consider appropriate, will be announced at the opening. No Bid shall be rejected at the opening stage, except for late submission, for which the Bid shall be returned unopened to the Bidder.

27. Confidentiality

Information relating to the examination, evaluation, and comparison of Bid, and the recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process, even after publication of the contract award.

Any effort by a Bidder to influence UNDP in the examination, evaluation and comparison of the Bid or contract award decisions may, at UNDP's decision, result in the rejection of its Bid.

In the event that a Bidder is unsuccessful, the Bidder may seek a meeting with UNDP for a debriefing. The purpose of the debriefing is discussing the strengths and weaknesses of the Bidder's submission, in order to assist the Bidder in improving the bid presented to UNDP. The content of other bid and how they compare to the Bidder's submission shall not be discussed.

E. EVALUATION OF BID

28. Preliminary Examination of Bid

UNDP shall examine the Bid to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, whether or not the Bidder is in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers, and in UNDP's list of suspended and removed vendors, and whether the Bid are generally in order, among other indicators that may be used at this stage. UNDP may reject any Bid at this stage.

29. Evaluation of Bid

29.1 UNDP shall examine the Bid to confirm that all terms and conditions under the UNDP General Terms and Conditions and Special Conditions have been accepted by the Bidder without any deviation or reservation.

29.2 The evaluation team shall review and evaluate the Bids on the basis of their responsiveness to the Schedule of Requirements and Technical Specifications and other documentation provided, applying the procedure indicated in the **Data Sheet** (DS No. 25). Absolutely no changes may be made by UNDP in the criteria after all Bids have been received.

29.1 UNDP reserves the right to undertake a post-qualification exercise, aimed at determining, to its satisfaction the validity of the information provided by the Bidder. Such post-qualification shall be fully documented and, among those that may be listed in the **Data Sheet** (DS No.33), may include, but need not be limited to, all or any combination of the following :

- a) Verification of accuracy, correctness and authenticity of the information provided by the bidder on the legal, technical and financial documents submitted;
- b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team;
- c) Inquiry and reference checking with Government entities with jurisdiction on the bidder, or any other entity that may have done business with the bidder;
- d) Inquiry and reference checking with other previous clients on the quality of performance on on-going or previous contracts completed;
- e) Physical inspection of the bidder's plant, factory, branches or other places where business transpires, with or without notice to the bidder;
- f) Testing and sampling of completed goods similar to the requirements of UNDP, where available; and
- g) Other means that UNDP may deem appropriate, at any stage within the selection process, prior to awarding the contract.

30. Clarification of Bid

To assist in the examination, evaluation and comparison of bids, UNDP may, at its discretion, ask any Bidder to clarify its Bid.

UNDP's request for clarification and the Bidder's response shall be in writing. Notwithstanding the written communication, no change in the prices or substance of the Bid shall be sought, offered, or permitted, except to provide clarification, and confirm the correction of any arithmetic errors discovered by UNDP in the evaluation of the Bid, in accordance with ITB Clause 35.

Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by UNDP, shall not be considered during the review and evaluation of the Bid.

31. Responsiveness of Bid

UNDP's determination of a Bid's responsiveness will be based on the contents of the Bid itself.

A substantially responsive Bid is one that conforms to all the terms, conditions, and specifications of the ITB without material deviation, reservation, or omission.

If a Bid is not substantially responsive, it shall be rejected by UNDP and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.

32. Nonconformities, Reparable Errors and Omissions

32.3 Provided that a Bid is substantially responsive, UNDP may waive any non-conformities or omissions in the Bid that, in the opinion of UNDP, do not constitute a material deviation.

32.4 Provided that a Bid is substantially responsive, UNDP may request the Bidder to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

32.5 Provided that the Bid is substantially responsive, UNDP shall correct arithmetical errors as follows:

- a) **if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of UNDP there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;**
- b) **if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and**
- c) **if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to the above.**

32.6 If the Bidder does not accept the correction of errors made by UNDP, its Bid shall be rejected.

F. AWARD OF CONTRACT

33. Right to Accept, Reject, or Render Non-Responsive Any or All Bid

33.1 UNDP reserves the right to accept or reject any Bid, to render any or all of the Bids as non-responsive, and to reject all Bids at any time prior to award of contract, without incurring any liability, or obligation to inform the affected Bidder(s) of the grounds for UNDP's action. Furthermore, UNDP is not obligated to award the contract to the lowest price offer.

33.2 UNDP shall also verify, and immediately reject their respective Bid, if the Bidders are found to appear in the UN's Consolidated List of Individuals and Entities with Association to Terrorist Organizations, in the List of Vendors Suspended or Removed from the UN Secretariat Procurement Division Vendor Roster, the UN Ineligibility List, and other such lists that as may be established or recognized by UNDP policy on Vendor Sanctions. (See http://www.undp.org/content/undp/en/home/operations/procurement/procurement_protest/)

34. Award Criteria

Prior to expiration of the period of Bid validity, UNDP shall award the contract to the qualified and eligible Bidder that is found to be responsive to the requirements of the Schedule of Requirements and Technical Specification, and has offered the lowest price (See DS No. 32).

35. Right to Vary Requirements at the Time of Award

At the time of award of Contract, UNDP reserves the right to vary the quantity of the goods and/or related

services, by up to a maximum twenty five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

36. Contract Signature

Within fifteen (15) days from the date of receipt of the Contract, the successful Bidder shall sign and date the Contract and return it to UNDP.

Failure of the successful Bidder to comply with the requirement of ITB Section F.3 and this provision shall constitute sufficient grounds for the annulment of the award, and forfeiture of the Bid Security if any, and on which event, UNDP may award the Contract to the Bidder with the second highest rated Bid, or call for new Bid.

37. Performance Security

A performance security, if required, shall be provided in the amount and form provided in Section 9 and by the deadline indicated in the **Data Sheet** (DS no. 14), as applicable. Where a Performance Security will be required, the submission of the said document, and the confirmation of its acceptance by UNDP, shall be a condition for the effectivity of the Contract that will be signed by and between the successful Bidder and UNDP.

38. Bank Guarantee for Advanced Payment

Except when the interests of UNDP so require, it is the UNDP's preference to make no advanced payment(s) on contracts (i.e., payments without having received any outputs). In the event that the Bidder requires an advanced payment upon contract signature, and if such request is duly accepted by UNDP, and the said advanced payment exceeds 20% of the total Bid price, or exceed the amount of USD 30,000, UNDP shall require the Bidder to submit a Bank Guarantee in the same amount as the advanced payment. A bank guarantee for advanced payment shall be furnished in the form provided in Section 10.

39. Vendor Protest

UNDP's vendor protest procedure provides an opportunity for appeal to those persons or firms not awarded a purchase order or contract through a competitive procurement process. In the event that a Bidder believes that it was not treated fairly, the following link provides further details regarding UNDP vendor protest procedures: <http://www.undp.org/procurement/protest.shtml>

Instructions to Bidders

DATA SHEET

The following data for the supply of goods and related services shall complement / supplement the provisions in the Instruction to Bidders. In the case of a conflict between the Instruction to Bidders and the Data Sheet, the provisions in the Data Sheet shall prevail.

DS No.	Cross Ref. to Instructions	Data	Specific Instructions / Requirements
1		Project Title:	Offices Renovation
2		Title of Goods/Services/Work Required:	Provision of Civil Works , in two (2) lots as follows: Lot 1: to undertake the Construction and Renovations Works of UNOCHA Building, Damascus, Syria Lot 2: to undertake the Construction and Renovations Works of UNDP Building, Damascus, Syria
3		Country:	Syria
4	C.13	Language of the Bid:	<input checked="" type="checkbox"/> English
5	C.20	Conditions for Submitting Bid for Parts or sub-parts of the Total Requirements	<input checked="" type="checkbox"/> Allowed Bidders can submit offers to one or both Lots. Each proposed lot must include all the requirements under this lot. Partial lots are not accepted, bids containing partial lots will be considered incomplete.
6	C.20	Conditions for Submitting Alternative Bid	<input checked="" type="checkbox"/> Shall not be considered
7	C.22	A pre-Bid conference will be held on:	A mandatory site visit is scheduled to the sites of works in UNOCHA and UNDP Buildings, on <u>12 January 2017, at 11:00 am.</u> Interested bidders should confirm their attendance including the names of their representatives by email on or before 9 Jan 2017 to the following contact details: Contact Name: Walid Okla E-mail address: walid.okla@undp.org cc: syria.procurement@undp.org

8	C.21.1	Period of Bid Validity commencing on the submission date	<input checked="" type="checkbox"/> 120 days
9	B.9.5 C.15.4 b)	Bid Security	<input checked="" type="checkbox"/> Not Required
10	B.9.5	Acceptable forms of Bid Security	<input checked="" type="checkbox"/> Not Applicable
11	B.9.5 C.15.4 a)	Validity of Bid Security	<input checked="" type="checkbox"/> Not Applicable
12		Advanced Payment upon signing of contract	<input checked="" type="checkbox"/> Not allowed
13		Liquidated Damages	<input checked="" type="checkbox"/> Will be imposed under the following conditions: Percentage of contract price per day of delay: 0.5% Max. no. of days of delay: 10 days Next course of action: Termination of Contract
14	F.37	Performance Security	<input checked="" type="checkbox"/> Required Amount : 10% of Contract Value Form: See Enclosed Section 9 – Form for Performance Security, or Certified Check
15	C.17 C.17.2	Preferred Currency of Bid and Method for Currency conversion	<input checked="" type="checkbox"/> United States Dollars (US\$) <i>Reference date for determining UN Operational Exchange Rate: 19, Jan, 2017</i>
16	B.10.1	Deadline for submitting requests for clarifications/ questions	Five (5) working days before the submission date.
17	B.10.1	Contact Details for submitting clarifications/questions ¹	Focal Person in UNDP: Procurement Unit Address: Damascus, Mezzeh, West Villas, Ghazawi St. 8 Fax No. : +963 11 611 45 41 E-mail address dedicated for this purpose: valid.okla@undp.org CC: syria.procurement@undp.org
18	B.11.1	Manner of Disseminating Supplemental Information to the ITB and responses/clarifications to	<input checked="" type="checkbox"/> Direct communication to prospective Bidders by email and posting on the following websites: www.facebook.com/UNDP.Syria

¹ This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was officially received.

		queries	http://www.sy.undp.org/content/syria/en/home/operations/procurement/ http://procurement-notice.undp.org/ www.ungm.org
19	D.23.3	No. of copies of Bid that must be submitted	<p>Original : One</p> <p>Copies: One (1 or One (1) soft copy of the offer on CD/DVD</p> <p>Submissions must be identical and include all required documents. In the event of any discrepancies the “original proposal” submitted in hard copy shall govern.</p>
20	D.23.1 b) D.23.2 D.24	Bid submission address	<p><input checked="" type="checkbox"/> By Courier / Hand Delivery: Mezzeh, West Villas Ghazzawi Street #8 Damascus, Syrian Arab Republic Tel: +963 11 612 9811 Att. Walid Okla, Procurement Associate or</p> <p><input checked="" type="checkbox"/> By Electronic submission: Syria.bids@undp.org with subject: UNDP-SYR-ITB-002-17</p>
21	C.21.1 D.24	Deadline of Bid Submission	Date and Time : <u>January 19, 2017 2:00 PM</u> Damascus Local Time
22	D.23.2	Manner of Submitting Bid	<input checked="" type="checkbox"/> Courier/Hand Delivery <input checked="" type="checkbox"/> Electronic submission of Bid
23	D.23.2 D.26	Conditions and Procedures for electronic submission and opening, if allowed	<input checked="" type="checkbox"/> Official Address for e-submission: Syria.bids@undp.org <input checked="" type="checkbox"/> Format : PDF files only <input checked="" type="checkbox"/> Max. File Size per transmission: [5 MB] <input checked="" type="checkbox"/> Max. No. of transmission: [4] <input checked="" type="checkbox"/> Mandatory subject of email: UNDP-SYR-ITB-002-17 and the Lot No. <input checked="" type="checkbox"/> Time Zone to be Recognized: [Damascus, Syria]
24	D.23.1 c)	Date, time and venue for public opening of Bid	Date and Time: <u>January 19, 2017 3:00 PM</u> Venue : UNDP Syria Country Office
25		Evaluation method to be used in selecting the most responsive Bid	<input checked="" type="checkbox"/> Non-Discretionary “Pass/Fail” Criteria on the Technical Requirements for each Lot ; and <input checked="" type="checkbox"/> Lowest price offer of technically qualified/responsive Bid for each Lot

26	C.15.1	Required Documents that must be Submitted to Establish Qualification of Bidders (In "Certified True Copy" form only)	<input checked="" type="checkbox"/> Bid Submission Form (Section 4) <input checked="" type="checkbox"/> Section (5) <input checked="" type="checkbox"/> Section (6) <input checked="" type="checkbox"/> Price Schedule Form (Section 7) <input checked="" type="checkbox"/> Company Profile, which should <u>not</u> exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods/services being procured; <input checked="" type="checkbox"/> Certificate of Registration of the business, including Articles of Incorporation, or equivalent document if Bidder is not a corporation; <input checked="" type="checkbox"/> Latest Audited Financial Statement (Income Statement and Balance Sheet) including Auditor's Report for the past three (3) years; <input checked="" type="checkbox"/> Statement including the Bidder's Quick Ratios for the past 3 years; <input checked="" type="checkbox"/> Statement of Satisfactory Performance from the Top Three (3) Clients in terms of Contract Value and related to similar nature and complexity to our project; <input checked="" type="checkbox"/> Time schedule in compliance with the deadlines set in the ITB. Detailed work plan including the project timeline and duration for the main activities, as well as method statements for the excavation and concrete works. The proposal shall be clear and comprehensive; <input checked="" type="checkbox"/> Proposed Organization and Methodology. The Bidder shall also describe the organizational unit(s) that will become responsible for the Contract, and the general management approach towards a project of this kind; <input checked="" type="checkbox"/> In case of subcontracting, the bidder should submit the company profile, experience and team composition of the designated subcontractor; <input checked="" type="checkbox"/> List of ongoing Contracts in which the Offeror is presently engaged, with contact details of clients and current percentage completion of each on-going project as well as the end date of each contract; <input checked="" type="checkbox"/> Technical description of materials, supply and equipment in line with or exceed the requirements of performance and size of the ITB (for all components and/or requirements); <input checked="" type="checkbox"/> Team Composition and Task Assignments (design and implementation), including CVs of the Key Staff (engineers, supervisors); <input checked="" type="checkbox"/> Guarantees: The complete works shall be tested, commissioned and handed over complete and in perfect operating condition and shall be covered under a defects liability (parts and labor) for a minimum period of 12 months from the date of
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			commissioning, including any possible hidden defect.
27		Other documents that may be Submitted to Establish Eligibility	Not Applicable
28	C.15	Structure of the Technical Bid and List of Documents to be Submitted	See Section 2 - Instructions to Bidders, Clause 15
29	C.15.2	Latest Expected date for commencement of Contract	Upon Contract Signature
30	C.15.2	Maximum Expected duration of contract	The overall term of execution of Lot 1 – UNOCHA Building, is spread over two (2) months, effective from contract signature date.
			The overall term of execution of Lot 2 – UNDP Building, is spread over one month and a half (1.5 months), effective from contract signature date.
31		UNDP will award the contract to:	<input checked="" type="checkbox"/> One or more Bidders, depending on the following factors: Bidders can submit offers to one or both lots. Each proposed lot must include all the requirements under this lot. Partial lots are not accepted, bids containing partial lots will be considered incomplete. For each lot, the contract will be awarded to the lowest price offer of technically qualified/responsive Bid.
32 (a)	F.34	Criteria for the Award and Evaluation of Bid	<u>Award Criteria</u> <input checked="" type="checkbox"/> Non-discretionary “Pass” or “Fail” rating on the detailed contents of the Schedule of Requirements and Technical Specifications for each lot <input checked="" type="checkbox"/> Compliance on the following qualification requirements for each lot <u>Bid Evaluation Criteria</u> <input checked="" type="checkbox"/> Full compliance of Bid to the Scope of Works and Technical Requirements and Standards; <input checked="" type="checkbox"/> Full acceptance of the Contract General Terms and Conditions; <input checked="" type="checkbox"/> Proposed resources, manpower, machinery and equipment etc. in order to perform the required works in a proper, safe and timely manner; <input checked="" type="checkbox"/> Demonstrated ability to possess or to be able to rent of needed equipment: <input checked="" type="checkbox"/> Demonstrated ability to honor important responsibilities and liabilities allocated to both the Consultant and the Contractor in this ITB (e.g.

			<p>financial, performance guarantees, warranties, or insurance coverage, etc.);</p> <p><input checked="" type="checkbox"/> Work plan/methodology and procedures in line with requirements to meet deliverables;</p> <p><input checked="" type="checkbox"/> The technical description of materials, supply and equipment are in line with or exceed the requirements of performance and size of the ITB (for all components and/or requirements);</p> <p><input checked="" type="checkbox"/> At least 5 years of experience in similar works;</p> <p><input checked="" type="checkbox"/> Number and profile of personnel in line with requirements;</p> <p><input checked="" type="checkbox"/> Submission of audited balance sheets, or other financial statements acceptable to UNDP, for the last 3 (three) years to demonstrate the current soundness of the applicant's financial position and its prospective long term profitability.</p>
33	E.29	Post qualification Actions	<p><input checked="" type="checkbox"/> Verification of accuracy, correctness and authenticity of the information provided by the bidder on the legal, technical and financial documents submitted;</p> <p><input checked="" type="checkbox"/> Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team;</p> <p><input checked="" type="checkbox"/> Inquiry and reference checking with other previous clients on the quality of performance on on-going or previous Contracts completed.</p>
34		Conditions for Determining Contract Effectivity	<p><input checked="" type="checkbox"/> UNDP's receipt of Performance Bond</p> <p><input checked="" type="checkbox"/> Signature of Contract (s) by UNDP and the selected contractor(s)</p>
35		Other Information Related to the ITB	<p><input checked="" type="checkbox"/> The liability insurance shall be taken out by the Contractor for an amount of 7 percent of the Price of the Contract per occurrence, with unlimited number of occurrences. Any limitation of liability under the Contract should not be less than 3 times the Contract price, and which should remain valid for the entire Contract duration, including the defect liability period</p>

Section 3a: Scope of Works

Lot 1 - Provision of Civil Works to undertake the Construction and Renovations Works for UNOCHA Building

1 . INTRODUCTION

1.1. PROJECT SYNOPSIS

The Building of UNOCHA located in Damascus is required to be suitable for offices and works for UNOCHA employees.

The project is described as “ONSTRUCTING AND RENOVATION WORKS FOR UNOCHA BUILDING”, Damascus, Syria.

The Contractor should provide all necessary materials, labor, transportation, equipment, investigation and supervision, etc.

Work will performed within in fixed-price contract.

1.2. BACKGROUND

At present the UNOCHA building does not meet all premises requirements, comfort nor security standards. The Building must be upgraded to address various things such as wiring, windows, plumbing, electrical, mechanical, ICT and security concerns.

1.3. SOLUTION

New block wall will be added in between the meeting room and office-2

New lighting fixtures to be installed in the location as per electrical drawings False ceiling will be installed in the meeting room, with LED light fixtures. Doors and Window including Metal door for safe room and window catcher. Demolition, Excavation, and removing the debris to legal disposal area.

Supply and install Ceramic tiles and other tiles specified according to the BoQ, Drawings and specifications.

Almost electrical installations will be exposed in trunking or conduits except in the meeting room or unless otherwise specified by supervisor engineer.

New Air Conditioners to be installed according to the drawings.

New Plumbing System in the new bathrooms, and connected all to the existing main line for [drainage and Water Supply].

Install Instantaneous Water Heater in each bathroom as a type of Saving Energy and Water, and hot water on demand.

New Exhaust fans shall be installed in bathrooms and kitchen to meet ventilation requirement for such places.

New W.Cs will be added according to the drawings, and due to the new layout specified in the architectural layout.

Renovation the garden to be in a good design.

New Electrical panel, power regulators, Electrical Floor box Hub in the meeting room, Socket outlets, Data outlets, and other specified in the BoQ and Drawings.

New Surveillance cameras to be installed and connected to the existing surveillance system in the UNDP.

Connect the Existing Emergency power supply System [Diesel Generator] with new ATS and ensure compatibility and functionality to the purpose.

Supply and install Data Network Cabinet including Patch Panel. Also Access points and all other items specify herein and in the Boq and the drawings.

2 . SCOPE OF WORK

The scope of work is renovation of UNOCHA Offices Building “Make Ready” according the attached Technical Specifications; the contractor shall be providing all materials, tools and equipment, labors, transportation, and supervision.

Each stage of the project will require approval from the Responsible Engineer before moving on to the next stage. The selected contractor must ensure he/she has adequate resources for designing, building, testing, and implementing the renovation works. Specific deliverables and milestones will be listed in the Work Requirements and Schedules and Milestones sections of this SoW.

All works shall be executed by a qualified Engineers and Technicians who are specialized in this field of work.

Contractor shall submit a construction schedule to accomplish the above works.

Contractor shall provide source of electricity and a water point for construction.

3 . GENERAL REQUIREMENTS

Within 5 days of Notice to Proceed, the contractor shall provide to the responsible Engineer a project schedule showing start to completion including significant milestones.

Within 10 days of Notice to Proceed “NTP”, the Contractor shall provide to the Responsible Engineer details of the proposed installation utilizing written description or sketches or both.

The Contractor is responsible to dispose of the construction debris legally. Include, but not limited to soils, rock excavation, packing materials and scrap steel.

When pursuing the work, the contractor is to take extra care as not to damage existing structures.

Submittals: The Contractor shall prepare a Format of Submittals and a list of all submittals, such as material approval, method statements, approval status of work to be done, etc., before the commencement of the works.

Works: The Contractor shall not undertake any works and shall not cover up any work prior to obtaining the approval from the UN Project Manager.

Materials and Fixtures: Samples of all materials and fixtures, before they are used on the project, must be presented to the UN Project Manager for inspection and approval. As and when requested, the Contractor shall provide all the test certificates for the materials, which are going to be used for the works.

4 . PERIOD OF PERFORMANCE

The period of performance for the Renovation of UNOCHA Building Project is 60 days. All work must be scheduled to complete within this timeframe. Any modifications or extensions will be requested through the Responsible Engineer and the Contractor for review and discussion.

5 . WORK REQUIREMENTS

As part of the UNOCHA building renovation Project the Contractor will be responsible for performing tasks throughout various stages of this project. The following is a list of these tasks which will result in the successful completion of this project:

5.1. KICKOFF

Contractor will create and present detailed project plan including schedule, WBS, testing plan, implementation plan, and transition plan.

Contractor will present project plan to the Responsible Engineer for review and approval.

5.2. PLANNING PHASE

Work with the responsible Engineer to gather requirements and establish metrics. Create shop drawings based on collected requirements.

Develop detailed shop drawings to the responsible Engineer for review and approval.

Present written status at weekly meeting.

5.3. EXECUTION PHASE

Contractor will implement the project according the attached Technical Specifications.

Contractor will begin execution with the support and approval of the Responsible Engineer at this point forward until the end of the period of performance.

Present written status at weekly meeting. On the working site, the Contractor shall:

- ☐ *Ensure that the safety norms and regulations are strictly followed at all times. The Contractor would be requested to immediately dismiss from the site the workers in violation of these regulations.*
- ☐ *Ensure that the proper equipment and methods are used to carry out the works.*
- ☐ *Ensure that all surplus and debris is disposed of the site and outside the UN premises, unless otherwise instructed.*

5.4. PROJECT HANDOFF/CLOSURE

Contractor will provide the Responsible Engineer with all documentation in accordance with the approved project plan.

Contractor will present project closure report to the responsible Engineer for review and approval.

Contractor will complete the project requirements checklist showing that all project tasks have been completed.

At completion of work, the Contractor shall clean any impacted areas to a condition equal to original condition.

All shipping materials and construction debris are to be disposed of in a legal manner outside of the Compound.

Prior to Final Acceptance the Contractor shall submit to the Responsible Engineer marked up drawings (As-Built) reflect the work as constructed. The drawings shall be digitally submitted on a CD-ROM in both AutoCAD and PDF format.

The contractor shall review the drawing with the supervisor engineer before any related works and request approvals of every items location.

6 . SCHEDULE/MILESTONES

6.1. CONSTRUCTION MILESTONES, FROM NOTICE TO PROCEED

Notice to Proceed (NTP)	0 Days from NTP
Project Schedule to RE	3
Project Design Notes / Sketches	5
MEP invisible installation	10
Finalizing blaster and tiles	35
Final Fixtures	55
Project Acceptance	60

6.2. DELIVERABLES

Construction Schedule	2 Days from NTP
Project Design Notes / Sketches	5
Submittals for Major Equipment	10
As-Built, Warranties	60

6.3. COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK

The Contractor shall be required to (a) commence work under this contract within five (5) calendar days after the date the Contractor receives the Notice to Proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than sixty (60) calendar days after NTP. The time stated for completion shall include final cleanup of the premises.

7 . ACCEPTANCE CRITERIA

For the UNOCHA building renovation Project the acceptance of all deliverables will reside with the Responsible Engineer in order to ensure the completeness of each stage of the project and that the scope of work has been met. Once a project phase is completed and the Contractor provides his report/presentation for review and approval, the Responsible Engineer will either sign off on the approval for the next phase to begin, or reply to the Contractor, in writing, advising what tasks must still be accomplished.

Once all project tasks have been completed, the project will enter the handoff/closure stage. During this stage of the project, the Contractor will provide his project closure report and project task checklist to the responsible Engineer. The acceptance of this documentation by the responsible Engineer will acknowledge acceptance of all project deliverables and that the Contractor has met all assigned tasks.

Any discrepancies involving completion of project tasks or disagreement between the responsible Engineer and the chosen Contractor will be referred to both organizations' contracting offices for review and discussion.

8 . OTHER REQUIREMENTS

8.1. SAFETY (ACCIDENT PREVENTION)

The Contractor shall provide and maintain work environment and procedures which will:

Safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities.

Avoid interruptions of Government operations and delays in project completion dates.

Control costs in the performance of this contract.

For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall:

Provide appropriate safety barricades, signs, and signal lights.

Comply with the standards issued by the Secretary of Labor at 29 CFR part 1926 and 29 CFR part 1910.

Ensure that any additional measures the responsible Engineer determines to be reasonably necessary for the purposes are taken.

Whenever the responsible Engineer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the responsible Engineer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action.

This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action.

If the Contractor fails or refuses to promptly take corrective action, the responsible Engineer may issue an order stopping all or part of the work until satisfactory corrective action has been taken.

The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

The Contractor shall insert this clause, including this paragraph (4), with appropriate changes in the designation of the parties, in subcontracts.

9 . RESPONSIBILITIES AND PROJECT MANAGEMENT

The Responsible Engineer (RE). Will be assigned from UNOCHA to ensure quality assurance goals are met. The Contractor shall provide the Responsible Engineer access to the site at all times.

Point of Contact. The Responsible Engineer shall be the main point of contact for this Project. The Contractor shall report to the Responsible Engineer on (a) status of the Project, (b) changes in Schedule, (c) accidents and safety issues, (d) disruptions to elevator or utility services; and all other important information pertaining to the Project.

English Speaking Representative. The Contractor shall provide an English-speaking representative on-site during all working hours with the authority to make all decisions on behalf of the Contractor and subcontractors.

Management Personnel. The Contractor shall staff the site, full-time, with a competent senior manager who shall perform project management. Remote project management is not an option. This individual shall keep a detailed photographic and written history of the project and shall update the Responsible Engineer weekly.

Site Security. The Contractor is responsible for on-site security as necessary to ensure no unauthorized access to their work sites. The Contractor is 100% responsible for securing their working materials and equipment. Any damage to facilities or infrastructure, which happens due to a lack of security, will be the responsibility of the Contractor to correct.

Contractor's Temporary Work Center. The Contractor will be permitted to use a designated area within the contract limits for operation of his construction equipment and office if warranted. If directed by the Responsible Engineer, the Contractor shall not receive additional compensation to relocate his operations. The Contractor is responsible for obtaining any required additional mobilization area above that designated. On completion of the contract, all facilities shall be removed from the mobilization area within 5 days of final acceptance by the Contractor and shall be disposed of in accordance with applicable host government laws and regulations. The site shall be cleared of construction debris and other materials and the area restored to its final grade. The Contractor is responsible for maintaining this area in a clear orderly manner.

Health and Safety. The Contractor shall be solely responsible for risk assessments, managing health, and safety issues associated with this project. The Contractor must provide cold water to all workers at the job sites. Based on hazard assessments, Contractors shall provide or afford each affected employee personal protective equipment (PPE) that will protect the employee from hazards. At a minimum PPE shall consist of eye protection, hard hats, and closed toe shoes. If the workers arrive on-site with sandals or athletic shoes, the Contractor is expected to provide rubber boots to them or send them home. All construction workers and management personnel must wear hard hats at all times on the construction sites. Contractor provided rubber boots and rubber gloves shall be worn when working around concrete placement. Other PPE such as gloves, dust masks, air respirators (sewage work) are also recommended. These items must be provided at the Contractor's expense. Workers may use discretion if they feel unsafe in using the equipment in a hostile environment. Any worker at an elevated

location above 4 meters, with the exception of a portable ladder, must be provided and utilize a safety harness.

Progress Payments. If the contract awarder expects to receive more than one (1) progress payment, the Contractor must submit a broken out Cost Proposal with a Schedule of Values in order to properly calculate the percentage of contract completion.

I. CIVIL & ARCHITECTURAL WORKS

1. STEEL WORKS

1.1. GENERAL

Contractor will provide all materials, labor and equipment required to complete the works in every respect, whether such materials are required as part of the permanent structure or a temporary one. These are such that shall be required for fabrication or erection or maintenance including specifically structural steel plates, flats, bars, welding rods, rivets, bolts and nuts, paint, welding sets in the shop and at site. Contractor shall provide all workshop facilities, derricks, cranes, pulley blocks, wire ropes, hemp or manila ropes, winches, erection cleats and temporary braces or supports and all other materials required to deliver the Works completed in every respect.

The Contractor shall prepare all the necessary fabrication shop drawings and these shall be submitted to the Project Manager for approval before fabrication is commenced. All such drawings shall show the dimensions of all parts, method of construction, welding and bolting. Also, the Contractor shall submit for approval a list of all material along with the samples and the test certificates.

The Contractor shall comply with all safety requirements for erection of structural steelwork. For all the works, workmanship shall be of first class quality, through true to line, level and dimension as shown in the drawings or instructed by the Project Manager.

The welding electrodes shall be of the best quality and of an appropriate grade. All welding electrodes shall be stored properly and kept dry. Any electrode, which has part of its flux coating broken away or is damaged, shall be rejected.

Bolts and nuts used for the works shall, unless otherwise specified, be black bolts and nuts manufactured by an approved manufacturer.

For all the works, workmanship shall be of first class quality, though, true to line, level and dimension as shown in the drawings or instructed by the Project Manager. The Contractor shall submit for approval a list of all material along with the samples and the test certificates. Comply with all safety requirements for erection of structural steelwork

All parts assembled for bolting shall be in close contact over the whole surface and all bearing stiffeners shall bear tightly at top and bottom without being drawn or caulked. The component parts shall be so assembled that they are neither twisted nor damaged. Drilling done during assembling shall not distort the metal or enlarge holes. The butting surfaces at all joints shall be so cut and milled so as to butt in close contact throughout the finished joints.

Hand flame cutting and punching of holes will not be permitted.

All welding for the works shall be carried out by first class welders. The Project Manager may at his discretion order periodic tests for the welder and /or of the welds produced. The Contractor shall carry out all such tests at his cost.

As much as possible, the welding work shall be done in the shop. The pieces shall be manipulated to ensure down hand welding for all shop joints as far as possible. All parts to be welded shall be arranged so as to fit properly on assembly. After assembly and before the general welding is to commence, the parts are to be tack welded with small fillet or butt welds as the case may be. The tack welding must be strong enough to hold the parts together but small enough to be covered by the general welding. The welding procedure shall be so arranged that the distortion and shrinkage stresses be reduced to a minimum.

Contractor shall be responsible for accurately positioning, leveling and plumbing of all steelwork and placing of every part of the structure in accordance with the approved drawings and to the satisfaction of the Project Manager. All stanchion base, beam and girder bearings etc. shall be securely supported on suitable steel packs. All reference and datum points shall be fixed near the work site for facilitating the erection work.

1.2. STEELWORK PAINTING

All steelwork to be painted shall be first cleaned of rust, scale, loose paint, oil, and all deleterious matter before applying primer. The cleaning shall be carried out by approved means, using power driven tools, followed by steel wire brushing and dusting, wherever necessary.

Metal primer, for application to steel surfaces, shall either be zinc chromate or red oxide-based primer of an approved make.

Priming of surfaces shall be carried out immediately after the preparation of surface. Second coat of primer shall be applied without exposing and as per manufacturer's recommendations.

One undercoat of oil paint, of approved colour, shall be applied to the primed surface. Putty shall be applied at the same time, wherever possible. All edges, angles and projections shall have a stripe undercoat applied as soon as the first coat is dry.

Priming and undercoats shall be lightly rubbed down with fine sandpaper before subsequent coats are applied.

Surfaces for painting must be dry and free from dust, dirt, rust, efflorescence or condensation.

The minimum dry film thickness of the paint coating, including rust protection should be 200 microns. At least two coats of primer and finish paint, each, must be applied.

1.3. BLOCK MASONRY WORK

Concrete for molding the blocks shall be machine mixed, dense and shall have proper workability so as permit removal of the moulds almost immediately after casting.

All blocks shall be machine molded. The shape and size shall be uniform according to the dimension and it shall not vary from the prescribed dimension by more than 3mm for length or 1.5mm for breadth and height. The blocks shall be properly cured before use.

The average compressive strength of 10 Nos. of precast concrete blocks shall be at least 5MPa (50kg/cm²) considering the whole base area of block for the calculation of the strength.

All mortar shall be prepared in accordance with relevant British standards and shall be machine mixed. Re-stamping of set mortar will not be permitted. The cement mortar proportion shall be as follows:

- a. 10/ 15cm thick block work 1:4
- b. 20cm thick block work 1:6

All unfinished work shall be raked back in courses, unless otherwise directed.

2 . ARCHITECTURAL

2.1. PAINTING

2.1.1. WALL PAINTING

The Contractor shall apply the coverage of paint as per the manufacturer's data for the type of paint to be used and the coverage rate approved by the OCHA Project Manager. All materials shall be applied strictly in accordance with the manufacturer's recommendations. Any additions of thinner must be made under the supervision of the OCHA Project Manager, and as permitted by the manufacturer. Samples of all materials used for the painting work shall be approved by and deposited with the OCHA Project Manager.

The Contractor shall provide all the equipment required for the paint works, including scaffolding, access platforms, compressors, etc. Brushes, rollers, spray guns and the likes used for carrying out the work shall be kept clean and free from foreign matter, at all times.

Paint shall not be applied when the relative humidity is 80% or more for both internal, as well as external applications.

Paint shall be brought to the site in the sealed, labeled containers, stating:

- a. Manufacturer's name
- b. Date of manufacture
- c. Type of paint
- d. Color
- e. Instructions for thinning, mixing and applying

Paint shall be stored in sealed containers, according to the manufacturer's recommendations. The paint shall not be subjected to extreme temperatures. Paint shall be used within its stated shelf life or within 18 months, whichever is less.

2.1.2. Timber Surfaces Painting

The Contractor shall prepare all timber surfaces as necessary and make ready for painting. Unless otherwise instructed, all timber doors, windows, plywood box covering for the rolling shutter blinds, etc. shall be painted with two coats of suitable primer and with two coats of gloss (oil) paint.

2.2. FLOORING & CLADDING

2.2.1. Ceramic Tile Flooring

Tiles shall conform to the relevant British standards. Tiles that are cracked, chipped or warped shall not be used for the works.

Preparation of surface: All masonry faces shall be cleaned thoroughly by removing dirt, loose mortar, efflorescence etc. The concrete surfaces shall be brushed to remove all laitance and roughened to provide a bond for the bedding.

Fixing tiles: The masonry and concrete faces shall be given a coat of cement plaster 12mm thick (in proportion 1:4). The surface of the plaster shall be scarified with wire brush for getting a good bond between the tiles and the bedding.

The tiles shall be soaked in clean water for about half an hour before using. The back of the tile shall be buttered with 1:2 plastic cement mortar to a thickness slightly in

excess of the finished thickness required and the tile pressed to the wall and tapped back in position. Alternatively a rich fatty mortar shall be applied on the bedding and the tile pressed into it, care being taken to ensure that the keys of the tile are buttered up with mortar. Joints shall be uniform, even, straight and as thin as possible in any case not more than 3.0 mm. After the surfaces of tiles have been fixed, the joints shall be cleaned of gray cement and refilled with cement paste of the same shade as that of the tiles. The tiled surface shall be left wet for a period of 7 days.

The Contractor shall provide the glazed rounded corner convex or concave, as necessary. After the completion of the work, the Contractor shall ensure that the surface is cleaned of all stains.

2.3. DOORS AND WINDOWS

2.3.1. Timber Works

Timber used for joinery shall be of good approved quality and shall be well seasoned, Cut Square, free from excess wane, from Sweden wood dead knot or other defects.

Wooden doors shall be 50 % minimum filled of Sweden wood pallets and the main frame width around the door shall be 8 cm minimum.

All timber for carpentry, joinery, rough frame work, backings, grounds, fixing strips and the like shall be treated with an approved wood preservative and the Contractor shall strictly observe the manufacturer's instructions for using this material. The maximum permissible moisture content in timber shall be in accordance with the relevant British standards.

All workmanship shall be of the best quality. Scantlings and boarding shall be accurately sawn and shall be of uniform width and thickness throughout. All carpenter's work shall be left with a sawn surface except where otherwise specified. Work shall be framed together and securely fixed in the best possible manner and with properly made joints. The Contractor shall provide all brads, nails, screws, plugs, pins, etc., as necessary and as directed. All work is to be properly tenoned, shouldered, wedged, pinned, braded, etc. and properly glued with the best quality glue.

All timber brought to the site shall be subjected to anti-termite treatment.

All joinery shall be finished off in a proper manner, planed and sand papered as required.

Use of nails shall not be permitted. Fixing of members shall be done by using screws or round brads, heads of which shall be properly punched in ends of timber, built into walls, and shall have air space left between themselves and the walls.

All exposed faces of woodwork shall be sand papered once before erection. The coloring or other preservatives shall not be applied without prior approval of the OCHA Project Manager.

The Contractor shall provide frames for doors and windows with Mild Steel holdfasts made of 40mm x 3mm thick flats 200mm long and fixed into jambs M-15/10 P.C.C. 1200mm high frames with 6 Nos. and frames above 2000mm with 8 Nos. holdfasts. Each holdfast will be fixed to the frame with 3 Nos. 50mm GI screws.

For fixing timber frames to concrete, rawl plugs and screws of 16 gauge shall be used wherever specified. Rawl plugs and screws of gauge 16 shall also be used for fixing rawl rough grounds, framing, hangers, hat hooks, curtain rails etc. Unless otherwise specified, screws used for the work shall be galvanised.

All timber surfaces coming into contact with masonry or concrete shall be given two coats of wood preservative or solignum approved by the OCHA Project Manager.

Paneled and glazed shutters, styles and rails shall be as shown in the drawings, moulded and mortised together. The shutters shall be square and free from twist.

All glazing is to be of sheet glass of selected quality and approved by the OCHA Project Manager. It shall be clear and free from defects. It shall be cut to the required size and fixed to frame either with spring clips, with approved quality, or with teakwood beading as per details.

All surfaces of timber resting on or bedded in masonry or concrete shall be well coated with coal tar.

All fixing holes shall be pelleted and concealed from view.

Fixtures: All doors and windows shall be provided with best quality fixtures as specified in the drawing. Samples of all fittings shall be submitted to the OCHA Project Manager, for approval. Unless otherwise specified, hinges, tower bolts, aldrops, handles, baby latches, etc. shall be of best quality brass oxidized of specified size. Mortise lock, hydraulic closer and other fixtures shall be of approved make. All the fittings shall be fixed with brass screws.

Painting shall be carried out only after the joinery has been inspected and approved by the OCHA Project Manager. The surface preparation and applying of primer coats of paint and final coats of paint shall be carried out as per specifications for painting.

Unless otherwise specified a minimum of 2 coats of primer paint and 3 coats of final paint to be applied.

Where polishing or varnishing is specified, the surface to be varnished or polished shall be protected from contamination such as inadvertent painting and surface damage. The polishing or varnishing shall be according to the specifications for varnishing or polishing under the section Painting.

2.3.2. Aluminum Doors and Windows

Aluminum alloy shall conform to relevant Syrian Standards. The Contractor shall submit the sample of section he is proposing to use for the frame, for approval. He shall also indicate the weight of section per one meter length. He shall also submit for approval the sample of hinges, handles, peg-stays or any other items that may require the approval of the OCHA Project Manager.

The glass panels, unless otherwise specified, shall be of double glass 4mm minimum thickness for windows and shall be free from flaws, specks and bubbles. They shall have properly squared corners and straight edges. Fixing to frames shall be done with approved glazing pins and approved quality PVC/ rubber beading.

Frames consisting of extruded hollow tube sections or other profiles shall be square and flat, the corners of the frame being fabricated to a true right angle. The hinges shall be either of projection type, or friction hinges. Necessary coupling of approved shape shall be provided for composite windows. All holes required for fixing frame, for fixing glazing shall be provided. Only brass screws shall be used for fixing the frame to concrete members.

Vertical and horizontal members shall be of adequate rigidity to resist lateral forces. Unless otherwise specified, aluminum doors shall be provided with floor springs of approved quality and make.

All aluminum members shall be supplied in either matt or polished finish including anodizing them by electrochemical process to an approved color and to a thickness of average 0.25mm. The frame shall be protected with a layer of clear transparent lacquer based methacrylate or cellulose butyrate. The coating shall be removed after installation is completed and after completing finishing work in the adjoining area.

The erection of frame shall be same as detailed under steel windows. Where aluminum frames come in contact with steel members, they shall be separated by either a 3mm thick rubber gasket for full width of aluminum member or any other approved film so as to avoid metallic corrosion.

Aluminum section shall be [technal type] and suitable for double glazed glass. All accessories shall be European made.

Fly-screen shall be included in the price of the unit of window square meter.

3 . GENERAL INSTALLATION PROCEDURE

3.1. ACCESSORIES

Use manufacturer's brackets and accessories where these are available and suitable for the mounting substrate.

3.2. PROTECTION

Deliver fixtures to site protected from damage under site conditions by coatings, coverings and packaging. Remove only sufficient protection to permit installation.

II. ELECTRICAL WORKS

1 . ELECTRICAL RACEWAYS

1.1. GENERAL

1.1.1. GENERAL REQUIREMENTS

Examine all other sections of the Specification for requirements that affect work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.1.2. SCOPE AND DESCRIPTION OF WORK

The requirements of this section shall apply to all electrical raceways referred to on the drawings and elsewhere within this specification.

The type of electrical raceways required shall comprise the following:

- ☐ Flexible Conduit
- ☐ PVC Conduit
- ☐ Cable Trays
- ☐ Cable Trunking (PVC)

1.1.3. QUALITY STANDARDS

The manufacturer shall be regularly engaged in the manufacture of electrical raceways of the type and capacities required, whose product have been in satisfactory use in similar service for not less than five (5) years.

The raceways furnished under these specifications shall confirm to all applicable standards especially to B.S. standards.

1.1.4. SUBMITTALS

The Contractor shall submit samples and manufacturer's data on all electrical raceway system materials, together with samples of the proposed materials.

1.1.5. DELIVERY, STORAGE AND HANDLING OF MATERIALS

The contractor shall provide color-coded thread protectors on the exposed threads of metal conduit, handle raceways carefully to prevent end damage and avoid scoring the finishes.

Where possible the raceways shall be stored indoors. If necessary to store outdoors, the raceways shall be elevated well above ground and enclosed with durable waterproof wrapping.

1.2. PRODUCTS

1.2.1. FLEXIBLE CONDUIT (METAL)

Flexible conduit shall only be used for final connection to items of fixed equipment subject to vibration.

Flexible conduit and adapters shall be manufactured in accordance with BS 731, Part 1.

Brass adaptors shall be provided for connection at either end of the flexible conduit and should be of the compression type.

Flexible conduit shall be of the weather proof having an overall PVC sheath. No length shorter than 500mm of flexible conduit shall be used unless specified elsewhere in this specification.

1.2.2. PVC CONDUIT

All PVC conduits shall be U.P.V.C. Rigid Conduits complying with BS 6099/-2-2/614-2-2 I.E.C. heavy gauge in all respects, and may be used where ambient temperature do not exceed 75°C.

All conduit fittings shall conform to BS 6099-2-2/IEC 614-2-2 standards and BS 4607 Part 5.

No conduit shall be less than 20mm diameter.

Conduit boxes shall be of the B.E.E.S.A circular pattern with appropriate spout entries and 50.8mm accessory fixing centers.

All connections and terminations shall be by means of a manufacturer's standard adaptor.

All boxes shall have brass thread inserts for the fixing of accessories or covers. However care must be taken in the support of totally enclosed lighting fittings. Where excessive temperatures are likely to occur special insulated boxes shall be used, i.e. of a pattern specifically designed by the manufacturer to improve weight- loading characteristics at high temperatures.

All tees shall be made using conduit tee boxes. Tangential entry boxes shall be used where appropriate. Multiple conduits may necessitate the use of large U.P.V.C. adaptable boxes for junctions.

All saddles shall be of the spacer bar type and from the same manufacturer as that of the conduit, which they are being used to secure.

A tapped earth terminal shall be provided in every conduit boxes.

All wall mounted accessory boxes shall have one adjustable fixing lug to facilitate final leveling of accessories.

In order to facilitate interchangeability and to eliminate problems of differential manufacturing tolerances, it is essential that all PVC conduit and appropriate accessories covered by this specification shall be obtained for the same manufacturer.

1.2.3. CABLE TRAY

All cable trays shall be of heavy-duty perforated type with 50mm return flange.

All cable trays shall be manufactured from hot-dip zinc coated steel to BS 2989 with a standard heavy duty galvanizing coating of 350g/m² and Z2 bending grade.

All bends, tees, cross units and angles shall be of the same specification as that of the cable tray finish and shall be standard products from the same manufacturer as the cable tray. Site fabrication shall not be permitted.

Cable trays and accessories shall be of a thickness of not less than:

- ☐ 1.5mm up to 305mm width
- ☐ 2.0mm above 305mm width

All fixing brackets, nuts and bolts shall be finished hot dip galvanizing. Tinned copper earth continuity straps shall be provided at every joint.

Where cable tray crosses building expansion joints, the tray shall be installed with expansion fittings for flexibility.

All cable trays installed outdoor shall be with epoxy coated.

1.2.4. CABLE TRUNKING (PVC)

Heavy Duty U.P.V.C. trunking with clip on lid (all insulated) shall be used wherever possible to replace multiple conduit runs. Where applicable, trunking shall comply with the requirements contained in BS 4678 part 4. Any non-standard trunking accessories shall be fabricated by the manufacturer, no site fabrication shall be allowed.

In order to facilitate interchangeability and to eliminate problems of differential manufacturing tolerances, it is essential that all PVC cable trunking and appropriate accessories covered by this specification shall be obtained for the same manufacturer.

1.3. EXECUTION

1.3.1. FLEXIBLE CONDUIT INSTALLATION

Flexible conduits shall only be used in short length, of less than 1m, in cases where a final connection is required to be made to a fixed item of equipment which is subject to vibration.

Flexible conduits shall be $1.25 \times L$, L being the direct distance between connection unit and fixed appliance, up to maximum length of 1m.

Purpose made glands shall be used on the ends of all lengths of flexible conduit.

A separate Cu/PVC conduit protective conductor shall be included in all lengths of flexible conduits.

Conduits shall be installed so as not to incur undue mechanical strain, damage or excessive temperatures.

1.3.2. PVC CONDUIT INSTALLATION

Where conduit boxes are not to be fitted with accessories, they shall be fitted with cover plates, which shall be overlapping where flush boxes are used.

Conduits shall be jointed and terminated utilizing the following appropriate components as supplied by the manufacturer:

1. Purposed made adaptors and accessories
2. Permanent adhesive - Solvent cement to produce a rigid watertight joint used with standard couplers and accessories.
3. Flexible adhesive - A non-hardening adhesive to be used where expansion facilities are required in a long conduit runs, in conjunction with expansion coupler.

Conduits up to 25mm diameter may be bent cold with the use of the appropriate bending spring obtained from the conduit manufacturer. For larger size conduits, it is necessary to use heat or appropriate manufacturer's standard ready-made bends.

Adequate allowance shall be made for linear expansion and contraction of the conduits under normal working temperature variations, as follows;

Expansion couplers shall be used on all straight runs of conduit exceeding 6 meters in length.

Conduit shall be free to slide within saddles.

Allowances for expansion in cast in-situ installations normally only required to effect structural movement at building expansion joints.

Conduit shall be supported at interval of 1.5m in isolated positions or 1m in accessible situations. Where working temperatures tend to be high, this spacing shall be reduced accordingly.

Multiple conduits may necessitate the use large PVC adaptable boxes for junctions, which

shall be readily accessible at all times.

Care shall be taken in the support of totally enclosed lighting fittings. Where excessive temperature that likely to occur, special heat resistant boxes shall be used, i.e. of a pattern specifically designed to improve weight loading characteristics.

Spacing factors shall be applied to all conduits in accordance with chapter 522.08 of IEE Wiring Regulations, 16th Edition.

Conduits shall not be installed closer than 75mm to pipes of other services.

“Draw in” boxes shall be installed in all conduit runs exceeding 3m in length at a maximum 12m spacing and shall be readily accessible at all times.

Inspection elbows, bend or tees shall not be permitted for flush connection.

Extension rings shall be used where boxes are found to be not flush with the finished surface. Care shall be taken to prevent water, dirt or debris from entering the conduit system.

1.3.3. CABLE TRAY INSTALLATION

Where practical cable tray shall be run horizontally and flat or vertically and shall be supported at distances not exceeding 1.5m to be building structure using mild steel brackets. These brackets shall be secured to the building structure using expanded bolts and washers or built into the structure during construction.

Where cable tray is suspended, 2-no. drop rods shall be used at each suspension point to an angle iron or channel support to which the cable tray is bolted. The spacing

of suspension points shall be determined in accordance with the manufacturer's structural information such that undue stress or deflection does not occur.

Where cable tray is cut, the open ends shall be painted using an oxide undercoat and an aluminum topcoat. Where the finish is PVC a topcoat of liquid PVC solution shall be applied after the completion of the cable tray installation.

Cable trays run parallel with walls shall not be mounted closer than 75mm to the wall.

All cables shall be secured to the cable tray at distances in accordance with table 4A of the IEE Wiring and Regulations, 16th Edition.

Bare copper or aluminum cables shall not be run on cable tray.

Earth continuity shall be ensured by means of tinned copper earth straps bolted across each joint. Flexible braided straps shall be used for expansion joints.

1.3.4. CABLE TRUNKING INSTALLATION

Cable trunking shall be fixed securely to the building structure at intervals not exceeding 1.5m.

Where vertical runs of trunking exceed 3m in length, pin racks shall be fitted by the Contractor.

Spacing factors shall be applied to all cable trunking in accordance with chapter 522-08 of the IEE Wiring Regulations, 16th Edition.

For metal trucking installations, earth continuity shall be ensured by means of tinned copper earth straps bolted across each joint. Flexible braided straps shall be used for expansion joints.

Metal trucking cut during installation shall have the cut ends painted with an oxide undercoat and an aluminum top coat.

Where metal trucking is installed in areas subject to corrosive atmospheres, the complete trucking installation shall be painted with chlorinated rubber paint after the installation is complete.

Expansion joints with gaps shall be incorporated in all PVC trucking runs in excess of 6 meters in length. External couplings shall have elongated slots and fixing holes shall be drilled oversize to give freedom of linear movement. Internal couplings shall be securely fixed at one end by use of this cotrophic adhesive leaving to other end free for linear movement.

Bare copper or aluminum cables shall not be run in metal trunking.

2 . BOXES, PULL BOXES AND ACCESSORIES

2.1. GENERAL

2.1.1. GENERAL REQUIREMENTS

Examine all other sections of the Specification for requirements which affect work of this section whether or not such work is specifically mentioned in this Section.

Coordinate work with that of all other trades affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

2.1.2. SCOPE AND DESCRIPTION OF WORK

Extent of electrical box and electrical fitting work is indicated by drawings and schedules.

- ☐ Types of electrical boxes and fittings in this Section include the following:
- ☐ Outlet boxes
- ☐ Junction boxes
- ☐ Pull boxes
- ☐ Floor boxes (under floor and flush floor) Conduit bodies
- ☐ Bushings
- ☐ Locknuts
- ☐ Knockout closures

2.1.3. QUALITY ASSURANCE

2.1.3.1 Manufacturers

Firms regularly engaged in manufacture of electrical boxes and fittings, of types and sizes required, whose products have been in satisfactory use in similar service for not less than 10 years.

2.1.3.2 Installer

Qualification with at least five (5) years of successful installation experience on projects with electrical installation work on similar to that required for project.

2.1.3.3 I.E.E. Compliance

Comply with IEE as applicable to construction and installation of electrical wiring boxes and fittings.

2.1.3.4 British Standard Compliance

Comply with British Standards as applicable to sheet steel outlet boxes, device boxes, and cover and box supports.

2.1.4. SUBMITTALS

2.1.4.1 Product Data

Submit manufacturer's data on electrical boxes and fittings.

2.1.4.2 Samples

The Contractor shall submit sample of each type of box and fitting they are offering.

2.2. PRODUCTS

2.2.1. FABRICATED MATERIALS

2.2.1.1 Interior Outlet Boxes

Provide moulded PVC boxes and/or galvanized flat, rolled sheet steel interior outlet wiring boxes, of types, shapes and sizes including box depths, to suit each respective location and installation, construct threaded screw holes with corrosion-resistant screws for securing box covers and wiring devices.

2.2.1.2 Interior Outlet Box Accessories

Provide outlet box accessories as required for each installation, including mounted brackets, wallboard hangers, extension rings, fixtures studs, cable clamps and metal straps for supporting outlet boxes, which are compatible with outlet boxes being and fulfilling requirements of individual wiring situations.

2.2.1.3 Weatherproof Outlet Boxes

Provide corrosion-resistant cast metal box weatherproof outlet wiring devices, of types, shapes and sizes, including depth of boxes, with threaded conduit ends, cast metal face plates with spring hinged waterproof caps suitable configures for each application, including face plate gaskets and corrosion resistant fastener.

2.2.1.4 Junction and Pull Boxes

Provided PVC boxes and/or galvanized code gauge sheet steel junction and pull boxes or with screw on covers, of types, shapes, and sizes, to suit each respective location and installation with welded seams and equipped with stainless steel nuts, bolts, screws and washers.

2.2.1.5 Conduit Bodies

Provide galvanized cast metal conduit bodies, or types, shapes and sizes to suit respective locations and installation, construct with threaded, corrosion resistant screws.

2.2.1.6 Bushings, Knockout Closures and Locknuts

Provide corrosion-resistant punched steel box knockout closures, conduit locknuts and malleable iron conduit bushings, offset connectors, of types and sizes to suit respective uses and installation.

2.3. EXECUTIONS

2.3.1. INSTALLATION

Install electrical boxes and fittings where indicated, complying with manufacturer's written instructions, applicable requirement of IEE and BS's "Standard of Installation" and in compliance with recognized industry practices to ensure that products fulfill requirements.

Coordinate installation of electrical boxes and fitting with wire/cable and raceway installation work.

Provide weatherproof outlets of interior and exterior locations exposed to weather or moisture.

Provide knockout closures to cap unused knockout holes where blanks have been removed.

Install boxes and conduit bodies' locations to ensure ready accessibility of electrical wiring.

Avoid using round boxes where conduit must enter box through side of box, which would result in difficult and insecure connections when fastened with locknut or bushing rounded surface.

Fasten boxes rigidly to substrate or structural surfaces to which attached, or solidly embedded electrical boxes in concrete masonry.

Provide electrical connection for installed boxes.

3 . WIRING DEVICES

3.1. GENERAL

3.1.1. GENERAL REQUIREMENTS

Examine all other sections of the Specification for requirements, which affect work of this section whether or not such work is specifically mentioned in this Section.

Coordinate work with that of all trades affecting, or affected by work of this Section. Cooperate with such trades to assure that steady progress of all work under the Contract.

3.1.2. SCOPE AND DESCRIPTION OF WORKS

This Specification applies for to wiring devices used as accessories for the electrical installation as indicated on the drawings or schedule elsewhere within this specification.

Types of electrical wiring devices required for the installation in this project include:

- ☐ Lighting switches (White Plastic)
- ☐ External lighting switches
- ☐ 13A switch socket outlets
- ☐ 15A socket outlets
- ☐ Single phase isolators and switch fuses
- ☐ Multi-phase isolators and switch fuses
- ☐ Connections to fixed appliances

3.1.3. QUALITY ASSURANCE

3.1.3.1 Standards

The equipment and installation shall comply with the standards or their approved equivalents. In the event of the discrepancy between this specification and any other relevant standard or code of practice, the specification shall be followed and the Engineer informed.

3.1.3.2 Manufacturers

Firms regularly engaged in manufacture of wiring devices, of types and ratings required and whose products have been in satisfactory use in similar service for not less than five (5) years.

3.1.3.3 Source Quality Control

Before installation, wiring devices shall be tested in accordance with standards mentioned elsewhere and have relevant listing or certificates of approval.

3.1.3.4 Workmanship

All work undertaken in part or whole shall be carried out and completed to the standards mentioned elsewhere and to the satisfaction of the Engineer.

Any defects of damage caused partly or wholly in the installation of wiring devices to the building or building fabric shall be made good to the satisfaction of the Engineer.

3.1.4. SUBMITTALS

The Contractor shall submit to the Engineer complete and detailed manufacturer's data relating to the wiring devices offered. Refer to Section 16010.

For approval submissions shall include the following:

- ☐ Name of the manufacturer
- ☐ Country of origin
- ☐ Technical performance of the equipment selected.
- ☐ Dimensional details needed for installation and maintenance.
- ☐ Delivery time from the date of orders.
- ☐ Submit copies of test reports or certificates.
- ☐ Control schematic and wiring.

The Contractor shall provide samples of proposed wiring devices together with the above submittal.

3.1.5. DELIVERY, STORAGE AND HANDLING

Box crate or otherwise completely enclose and protect all equipment from dirt, construction debris, traffic and operation.

3.2. PRODUCTS

3.2.1. GENERAL

Switch plates, socket outlet plates and similar items shall be of plastic material as indicated on the drawings or as directed by the Engineer.

Switches shall comply with standards mentioned elsewhere in the specification and be suitable for use on inductive and resistive loads. They shall be single pole, unless

otherwise indicated or directed by the Engineer, and where mounted adjacent one to another they shall be grouped in a single enclosure and share a common switch plate.

Where indicated, switches with pilot lamps shall be provided. This lamp shall be a neon lamp with resistor and red colored lens unless otherwise indicated.

3.2.2. LIGHTING SWITCHES (WHITE PLASTIC)

Lighting switches for interior use, grid type, shall be of 240 volts AC, single pole minimum of 10A and mounted on adjustable grid enclosed in metal box. The switches shall be of quick make, slow break type and shall comply with BS 3676, Part 1 mentioned elsewhere in this specification.

Key switches for office lighting shall be 240 volts AC, single pole, 10A rating, flushed mounted in a metal box. The key barrel shall be flush with the cover plate. The key being withdrawable in both "ON and OFF" positions. The switch mechanism shall be of the snap action type and conform to the standards mentioned elsewhere in this specification.

3.2.3. EXTERNAL LIGHTING SWITCHES

All external lighting switches shall be one way, two way or multi-gang arrangements and be complete with a gasket forming splash proof and dust proof enclosures. The switches shall also comply with standards and regulations mentioned elsewhere.

A suitable drain hole must be provided.

3.2.4. 13 AMPERES SWITCH SOCKET OUTLETS

230 volts, switch sockets outlets shall be provided as indicated on drawings, and shall have two-pole and earth pin, to BS 1363, Part 2 standards.

Weatherproof sockets outlets shall be provided with push-on cap retaining ring without switch.

All wall mounted switch socket outlets with the exception of those mounted in services or plant rooms shall be of the rectangular 3-pin shuttered pattern, flush mounting type with--front plates as indicated elsewhere. Socket outlets shall be mounted in flush metal box, complete with an earth terminal. Where surface mounted socket outlets are required, they shall be of the flush pattern, mounted on a suitable adaptor boxes.

All surface sockets shall be provided with a 13A unbreakable plug top complete with fuse. Each twin socket shall be counted as two sockets.

Plugs shall be provided with all sockets outlets and handed over to the Engineer.

Socket outlets provided in service plant rooms shall be metal clad type, surface or flush mounted as indicated in the drawings.

3.2.5. 15 AMPERES SOCKET OUTLETS

15 amperes, 230 volts, socket outlets shall be provided as indicated on the drawings and shall have two-poles and earth pin.

Socket outlets must comply with BS standards and other Codes of Practice and regulations mentioned elsewhere in this specification.

All wall mounted socket outlets with the exception of those mounted in services or plant rooms shall be 3-pin, flush mounting type with front plates as indicated elsewhere. Socket outlets shall be mounted in flush metal boxes complete with an earth terminal to connect the socket outlets, they shall be of the flush pattern, mounted on a suitable adaptor boxes.

Socket outlets provided in services or plant rooms shall be metal clad type, surface or flush mounted as indicated elsewhere.

3.2.6. SINGLE PHASE ISOLATORS AND SWITCH FUSES

These shall be of the double pole single throw type, complying with regulations and standards mentioned elsewhere in this specification.

Finishes shall be white or plastic for flush isolators or rust proof metal for surface isolators and switch fuses.

All fuses shall be HRC type as described elsewhere in this specification. These items of switchgear are to be used for the isolation of single-phase items of fixed equipment fed by an individual circuit.

Type of equipment required is described elsewhere in this specification and on the drawings.

3.2.7. MULTI-PHASE ISOLATORS AND SWITCH FUSES

Multi-phase isolators and switchgear shall be used for the isolation of multi-phase items of fixed equipment fed by an individual circuit.

Switches shall be of multi-pole, single throw operation and must comply with standards mentioned elsewhere in this specification.

Types of equipment are described elsewhere in this specification.

These items are to be manufactured from rust proof, metal clad material. All

fuses shall be of HRC type, as described elsewhere in this specification.

3.2.8. CONNECTIONS TO FIXED APPLIANCES

Using either an insulated copper sheathed cable or a flexible metallic conduit with heat resisting cables run through the conduit shall carry out final connections to this type of equipment.

Supply and install a double pole isolator adjacent to each fixed appliance. Conduit kitchen equipment shall not be run in the floor screed.

MICC Cable Final connections made using MICC cables shall be of copper construction with PVC sheath of size as shown on the drawings. The cable shall comply with relevant standards and codes of practice as mentioned elsewhere in this specification. The cable must be formed into two loops before entering the fixed equipment, to allow for vibration or movement of equipment.

Flexible Conduit Final connections made using flexible conduit are to comprise a metallic flexible conduit covered by a continuous PVC sheath and shall comply with Section 16110 "Flexible Conduit" and Fittings of this specification.

Sufficient length shall be allowed for vibration and movement of the equipment. A separate circuit protective conductor wire must be run inside the conduit.

3.3. EXECUTIONS

3.3.1. INSPECTION

The Contractor must examine areas and conditions under which wiring devices are to be installed and correct any unsatisfactory conditions detrimental to proper and timely completion of the work. He shall not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Engineer.

3.3.2. INSTALLATION OF WIRING DEVICES

Install wiring devices where indicated, in accordance with manufacturer's written instructions, applicable requirement of BS, IEE, and in accordance with the recognized industry practices to ensure that products serve their intended function.

Programmed installation of devices for after wiring is completed.

Install devices only in electrical devices, which are clean and free from excess building materials, debris, etc.

In wall or ceilings of concrete, tile or other non-combustible material, boxes and fittings shall be so installed that the front edge of the box or fitting will not be set back from the finished surface more than 5mm. In walls and ceilings constructed of wood or other combustible material, outlet boxes and fittings shall be flush with the finished surface or project their form.

Plaster surfaces that are broken or incomplete shall be repaired so that there will be no gaps or open spaces at the edge of the box or fittings.

In making an exposed surface extension from an existing outlet of concealed wiring, a box or an extension ring shall be mounted over the original box and electrically and mechanically secured to it.

All wiring devices shall be fixed independently of the system wiring. All fixing screws or bolts shall be of steel and where the appropriate apparatus has a protective coating of zinc or is mounted outside; an electro-galvanized finish shall be used complying with relevant standards and codes of practice.

4 . LOW VOLTAGE PROTECTIVE DEVICES

4.1. GENERAL

4.1.1. GENERAL REQUIREMENTS

Examine all other sections of the Specification for requirements, which affect work of this section whether or not such work is specifically mentioned in this Section.

Coordinate work with that of all trades affecting, or affected by work of this Section. Cooperate with such trades to assure that steady progress of all work under the Contract.

All MCCB and MCB's shall be of the same manufacturer.

4.1.2. SCOPE AND DESCRIPTION OF WORK

Extent of protective device work is indicated by drawings and schedules. Types of protective devices in this section shall include the following:

- ☐ Miniature circuit breakers
- ☐ Residual current circuit breaker

4.1.3. GUARANTEES

Attention is directed to provisions of the GENERAL TERMS AND CONDITIONS AND SPECIAL CONDITIONS regarding guarantees and warranties for work under this Contract.

Manufacturers shall provide their standard guarantees for work under this section.

However, such guarantees shall be in addition to and not in lieu of all other liabilities, which manufacturers and Contractors may have by law or by other provisions of the Contract Documents.

4.1.4. QUALITY ASSURANCE

4.1.4.1 Manufacturers

Firms regularly engaged in manufacture of protective devices of types, sizes and rating required, whose products have been in satisfactory use in similar service for not less than 10 years.

4.1.4.2 Installer

Qualified with at least 5 years of successful installation experience on projects with electrical installation work similar to that required for the project.

4.1.4.3 IEE Compliance

Comply IEE requirements as applicable to construction and installation of protective devices.

4.1.4.4 BS Compliance

Comply with applicable requirements of the BS Standards publications for moulded case miniature and power type circuit breakers.

4.1.5. SUBMITTALS

Submit manufacturer's data on protective devices, including catalogue cuts, time current tripping characteristic curves and mounting requirements.

Maintenance Stock, Fuses: For types and ratings required, furnish additional fuses, amounting to one unit for every 5 installed units, but not less than one unit of each.

4.2. PRODUCTS

4.2.1. MINIATURE CIRCUIT BREAKERS (MCB)

Miniature circuit breakers (MCB's) shall be plastic moulded units incorporating thermal magnetic protection against overloads and short circuits, and shall comply with BS 3871 Part1. The tripping mechanism shall be designed to provide delays operation on overload and instantaneous operation under fault condition. Breakers shall have a positive ON/OFF indication, be "trip free" to the full off operation under overload and /or short circuits. Triple units shall be used for three phase circuits. All multiple breakers shall have an integral common trip bar as standard.

The circuit breakers shall be grouped and mounted on removable cradles.

Each group shall be connected to a common bus bar of the appropriate phase.

Where the fault level of the system is such that use of MCB's is not acceptable, then moulded case circuit breakers (MCCB's) shall be utilized.

4.2.2. RESIDUAL CURRENT CIRCUIT BREAKER

Residual current circuit breaker (RCCB) shall comply with BS 4293 and BS 3871 Part

1 and shall generally comprise a solid state sensing device, trip coil/mechanism, and contact system/switching mechanism.

The sensitivity of the breaker shall be 300, 30, 10, 5mA maximum tripping time of 30ms.

Each breaker shall incorporate a test circuit with a test button to simulate fault conditions.

The combined units shall be compatible with other MCB's installed within distribution boards.

The Contractor shall supply 1 no. Spare RCCB of every current rating, sensitivity and type used on the project. These spare RCCB shall be handed over to the Engineer, and signed for, upon practical completion of the works.

4.3. EXECUTION

4.3.1. INSTALLATION

Install protective devices as indicated, in accordance with manufacturer's written instructions and with recognized industry practices to ensure that with IEE and BS Standards for installation or protective devices.

Coordinate with other work, including wiring work as necessary to interface installation of protective devices with other work.

Fasten circuit breakers without mechanical stresses, twisting or misalignment being exerted by clamps, supports or cable.

Set field-adjustable circuit breakers for trip settings as indicated, subsequent to installation of devices.

Install fuses, if any, in fused circuit breakers.

Inspect circuit breaker operating mechanisms for malfunctioning and, where necessary; adjust units for free mechanical movement.

4.3.2. FIELD QUALITY CONTROL

Prior to energization of overcurrent protective devices, test devices for continuity of circuitry and for circuits. Correct malfunctioning units, and then demonstrate compliance with requirements.

5. WIRES AND CABLES

5.1. GENERAL

5.1.1. GENERAL REQUIREMENTS

Examine all other sections of the Specification for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.

5.1.2. SCOPE AND DESCRIPTION OF WORK

The requirements of this section shall apply to all multi-core and single core cables, referred to on the drawings and elsewhere within this Specification.

The type of cables shall have copper conductors and comprise the following:

- ☐ Single core PVC insulated cables
- ☐ Flexible multi-core cables
- ☐ PVC/PVC cables
- ☐ PVC/SWA/PVC cables
- ☐ XLPE/SWA/PVC cables
- ☐ TV and communications cables

5.1.3. QUALITY STANDARDS

Cables shall only be purchased from manufacturers specializing in the manufacture of the type cable mentioned.

Cables shall generally be manufacture's standard construction and materials. Where this contradicts any part of the Specification, the Contractor shall state so at the time of tender.

Manufacturers shall provide proof of supply of similar types of cables to known users for a period not less than five (10) years.

All equipment furnished under this specification shall conform to but not limited to applicable regulations and standards of IEC, BS, BSEN and DIN.

5.1.4. SUBMITTAL

The Contractor shall submit samples of each type of cable they are offering. For all cables the Contractor shall submit the following manufacturer's details;

- ☐ Dimensions
- ☐ Weights
- ☐ Construction
- ☐ Current rating
- ☐ Manner of installation
- ☐ Maximum conductor operating temperature Volt/drop/amp/meter
- ☐ Impedance: separate resistance and reactance values of single and multi-core cables
- ☐ Resistance of armouring in ohms/1000 meters length of cable Characteristic curves for short circuit rating
- ☐ Minimum bending radius

5.1.5. DELIVERY AND HANDLING OF CABLES

End of cables shall be sealed to prevent ingress of moisture.

Where cables are transported on drums these shall be adequate circumference for the

cables.

After winding on drums, the cables shall be protected by being completely enclosed.

Care shall be taken, during transit to avoid damage to cable and drums. Before acceptance on site, cable drums and cables shall be inspected for;

- ☐ Damage
- ☐ Compliance specification
- ☐ Quantity

Cable, wire and accessories shall be stored in factory installed covering in a clean, dry indoor space, which provides against weather.

Each distribution cable shall be supplied in one continuous length, no joints are permitted.

Cables shall be handled with care and every effort made to avoid damage to the cable, to other services and to building fabric.

Recommendations or instruction available from the cable manufacturers concerning the installation of cables shall be taken into account; in particular coaxial cables shall not be bending in radius less than six (6) times the overall diameter. Any damage shall be reported immediately to the Engineer.

Cable drums shall be unloaded carefully by means of either a crane or ramp and impact with the ground shall be avoided.

They shall be supported on axles and axles stands while the cable is being pulled; twisting and abrasion of the cable serving or over sheath shall be avoided.

Cables shall be pulled over cable rollers adequately space to prevent the cable being dragged over ground or other surfaces.

For cables pulled into thrust boring or cable ducts and for all cables exceeding 10m lengths, cable stockings shall be used for hauling. Precautions shall be taken to ensure that strain is taken on the cable cores as well as the sheath and excessive stain shall be avoided.

5.2. PRODUCT

5.2.1. SINGLE CORE PVC INSULATED CABLES

Single core cables shall be of high conductivity copper stranded wire insulated with PVC.

Cables shall comply with BS6004 Table 5, and shall be of 600 to 1000V grade. Cables shall be coloured in accordance with Section 524 of the IEE Wiring Regulations, 16th Edition and BS 3858.

5.2.2. FLEXIBLE CABLES

All flexible cables used for pendant lighting fittings or for final connections to fixed or

portable equipment shall be of 300-500 grades in comply with BS 6500 Table 12.

Flexible cable shall be of annealed copper conductors insulated with heat resisting PVC, sheathed with heat resisting PVC of shall be of circular construction.

Cables cores shall be coloured in accordance with Section 524 of the IEE Wiring Regulations, 16th Edition and BS 3858.

5.2.3. MULTI-CORE POLYVINYL CHLORIDE (PVC) INSULATED NON ARMoured CABLES

All low voltage multi-core distribution cables shall be 600/1000V polyvinyl chloride (PVC) insulated copper conductor, non-armoured complying with BS 6346.

Cable conductors shall be of high conductivity copper wire insulated with polyvinyl chloride (PVC).

Cable cores shall be coloured in accordance with Section 524 of the IEE Wiring Regulations, 16th Edition and BS 3858.

Joints shall not be allowed in any cable.

5.2.4. MULTI-CORE POLYVINYL CHLORIDE (PVC) INSULATED STEEL WIRE ARMoured AND PVC SHEATHED CABLES

All low voltage multi-core distribution cables shall be 600/1000v polyvinyl chloride (PVC) insulated copper conductor, steel wire armoured and PVC sheathed cable complying with BS 6346.

Cable conductors shall be of high conductivity copper wire insulated with polyvinyl chloride (PVC). The armouring shall consist of a single layer of galvanized steel wire and the cable be sheathed overall with PVC.

Steel wire armouring shall be securely bonded to earth at each termination by means of an adequately sized metallic bond, which shall be as short and straight as it is practicable.

Cable cores shall be coloured in accordance with section 524 of the IEE Wiring Regulations, 16th Edition and BS 3858.

Joints shall not be allowed in any cable.

5.2.5. CROSS LINKED POLYETHYLENE (XLPE) INSULATED STEEL WIRE ARMoured AND PVC SHEATHED CABLES

All low voltage multi-core distribution cables shall be 600/1000v polyvinyl chloride (PVC) insulated copper conductor, steel wire armoured and PVC sheathed cable complying with BS 6346.

Cable conductors shall be of high conductivity copper wire insulated with cross- linked polyethylene. The armouring shall consist of a single layer of galvanized steel wire and the cable be sheathed overall with PVC.

Steel wire armouring shall be securely bonded to earth at each termination by means of an adequately sized metallic bond that shall be as short and straight as it is practicable.

Cable cores shall be coloured in accordance with section 524 of the IEE Wiring Regulations, 16th Edition and BS 3858.

Joints shall not be allowed in any cable.

Mineral insulated cables shall consist of a robust copper sheath enclosing high conductivity copper conductors, of the required number and cross sectional area, embodied in a highly compressed magnesium oxide and sheathed overall in a coloured PVC. All MICC cables shall be suitable for withstanding a pressure of 600/1000v.

MICC cables serving fire alarm and other services shall have different coloured PVC oversheaths to identify the nature of installation served.

The copper sheath of MICC cables bonded to the local earth terminal at each termination point by means of a purpose made earth bonding clamp and a green/yellow Cu/PVC earth conductor sized in accordance with section 543 of the IEE Wiring Regulations, 16th Edition.

At each termination, conductor shall be colour identified in accordance with chapter 514 of the IEE Wiring Regulations, 16th Edition and BS 3858.

5.2.6. TV AND COMMUNICATION CABLES

Co-axial cables shall be 75 ohm to be used for audio/video signal transmission and shall comply with IEC 78, IEC 96 and BS 2314. The size and type shall be sized to meet the signal requirements at the outlet points.

Wires for communication shall be single core or multi-core insulated and sheathed conductors, which are used only for high duty indoor application. The conductor insulation and the sheath shall be polyvinyl chloride (PVC) and shall be rated for minimum of 300/500v, and shall comply with IEC 189. The insulation resistance shall be a minimum of 100 mega ohm x kms. In multi-core wires each group of four (4) conductors shall be star-twisted. Shielding shall be provided if required as shown in the drawings.

Communication cables shall be multi-core, shielded. The conductor insulation shall be polyethylene (PE) and shall be rated for an operation voltage of approximately 150V and test voltage of 500/200v core-core/core-sheath. The insulation resistance shall be a minimum of 10000 mega ohms x kms. Each group of 4 conductors shall be twisted. The cable shall be provided with an aluminum shielding underneath the outer sheath.

5.3. EXECUTION

5.3.1. INSPECTION

The Contractor shall examine the areas and conditions under which the cables are to be installed and correct any unsatisfactory conditions detrimental to the proper and

timely completion of work. The contractor shall not proceed with the work until all unsatisfactory conditions have been corrected in a manner acceptable to the Engineer.

6 . FIRE ALARM

6.1. SMOKE DETECTOR

Type : Battery Operated

It shall be powered by a 9V battery. The unit shall incorporate an ionization smoke sensor with nominal sensitivity of 0.52-1.12%/ft.

The temperature operating range shall be between 40°F and 100°F (4°C and 38°C) and the humidity operating range shall be up to 85% relative humidity.

The alarm can be installed on the surface of any wall or ceiling following the UL/NFPA/Manufacturer's recommended placement guidelines.

The alarm shall include a test button that will electronically simulate the presence of smoke in cause the unit go into alarm. This sequence tests the unit's electronics, battery and horn to ensure proper operation.

The unit shall include a piezoelectric horn that is rated at 85 decibels at 10 feet.

The alarm shall produce the ANSI S3.41 three pulse temporal patterns audible emergency evacuation signal.

The unit shall also indicate a low battery warning utilizing a brief alarm chirp ever 30-40 seconds for a minimum of seven (7) days.

The smoke alarm shall at a minimum meet the requirements of UL 217, NFPA 72, and The California State Fire Marshall, NFPA 101 (One and two family dwellings Federal Housing Authority (FHA).

It shall also include a 3-year manufacturer's limited warranty.

7 . SURVEILLANCE SYSTEM

Main purpose of this system is to cover building entrance and surrounding areas to ensure the security for the building.

Cameras to be installed and connected to the existing main surveillance system in the UNDP building.

Provide the following:

Colored IP bullet cameras RES: 2 MP (ceiling \ wall) mounted shall be compatible to the existing surveillance system.

CAT 6 a cables shall be used to wire system components.

7.1. DATA AND TELEPHONE EQUIPMENT

This Section includes passive equipment such as wire, cable, connecting devices, installation, and testing for wiring systems to be used as signal pathways for voice and high-speed data transmission suitable for local area networks (LANs).

Scope of work consists of the installation of a generic structured wiring system based upon a star topology to connect all manner of applications covering voice and data transmission.

7.1.1. Data network

A main computer (server) provides data to work stations.

Copper Cables (for Data): Comply with Standard, UTP twisted (CAT 6 a cables shall be used).

Data outlet is to be (RG45) to comply with CAT 6 a UTP (unshielded twisted pair).

Workstation Outlets: dual data jack-connector assemblies mounted in single or multi-gang.

Must perform data flow test on cables.

The building is connected to the existing telecommunication distribution cabinet by 20 pair telephone cable with length approximately 150 m (real length must be determined by the contractor).

All data cables which are coming from the main server are SHIELDED cables, and all the cables from the network cabinet to the data sockets are UTP cables.

All data cables for wiring inside the network cabinet are UTP cat 6 cables.

Network cabinet has 12 unit capacities.

Each switch panel and patch panel has 24 ports, and every port supply power per Ethernet about 15.4 watt.

All components shall be compatible to the related connecting systems.

7.1.2. System Requirements

General: Coordinate the features of materials and equipment so they form an integrated system. Match components and interconnections for optimum future performance.

Expansion Capability: Unless otherwise indicated, provide spare fibers and conductor pairs in cables, positions in patch panels, cross connects, and terminal strips, and space in backbone cable trays and wire ways to accommodate 20 percent future increase in active Workstations.

Adjust arrangements and locations to accommodate and optimize arrangements and space requirements of telephone switch and LAN equipment.

7.2. CENTRAL TELEVISION SYSTEM

System shall consist of mono receiving dish and associated signal amplification and equalization, DiSEqC (Digital Satellite Equipment), and a coaxial cable distribution System.

HD server to be provided with a high quality, programed and installed in all accessories.

Distribution of direct broadcast satellite service signals and off air signal, ready for connection into the distribution system.

The contractor shall be installed the required shelf to lay the HD server in accordance to the architectural and supervisor engineer approval.

The contractor shall ensure the functionality of the system to be provided as a full operation package.

7.3. PANEL BOARDS

For distribution of electric power and for protection of circuits.

A three phase panel board is added and connected to existing panel as shown in drawings.

Disconnect switches is to be thermal and electromagnetic protection, with rating as shown on drawings.

7.4. EARTHING SYSTEM

The system consists of 2 copper rods (50 mm diameter x 2 m length) connected to each other at the top.

The hole depth is 2 m, and the distance between each rod is 2.5 m.

The rod is located at the garden and in the inspection manhole made from concrete.

The contractor shall be ensure the functionality of the system to the attached electrical system, and shall be tested with best method available in the local market.

8 . GENERAL INSTALLATION PROCEDURE

8.1. ACCESSORIES

Use manufacturer's brackets and accessories where these are available and suitable for the mounting substrate.

8.2. PROTECTION

Deliver fixtures to site protected from damage under site conditions by coatings, coverings and packaging. Remove only sufficient protection to permit installation.

III. MECHANICAL WORKS

1 . AIR CONDITIONING

1.1. PRODUCT

Single-Split room air conditioner/ Wall mounting

For individual cooling, heating, dehumidification and ventilation.

Compressor type : scroll

Outdoor Temperature : -7 °C (Winter) - +45 °C (Summer)

Energy Efficiency rating : A

Single Phase / 220 V

All operating functions can be selected using the display remote control.

Heating mode follows the principle of heat pumps.

Robust, weather-resistant outdoor unit and Anti-defrost feature.

1.2. NOTICE AND INSPECTION INSTRUCTIONS

All copper pipes shall be hidden in the wall and tested before starting the operation from leak of refrigerant and oil.

All copper pipes shall be insulated by proper insulation thickness and diameter according to the used copper pipe diameter, and according to the manufacture instructions.

The copper pipes between indoor and outdoor unit shall be one piece with no welding or connections fitting.

The insulated pipes by (ArmoFlex) shall be covered by PVC adhesive tape.

The outdoor units shall be mounted in less height than the indoor unit and according to the manufacture instructions. And install an oil trap by bending the cooper pipe at the outdoor unit when necessary.

Give sufficient notice so that inspection may be made of the equipment in place before connection and commissioning.

Supply all components and install to manufacturer's recommendations.

Outdoor equipment: Provide clearance around units for condenser air flow and maintenance access.

Provide a drawing of the equipment as installed.

1.3. TEST

All air conditioners shall be tested for 2 hours twice a day for 2 days before hand over.

1.4. OPERATING AND MAINTENANCE INSTRUCTIONS

Provide written operating and maintenance instructions containing:

Contractor's contact details for service calls. Manufacturer's maintenance and operation literature.

Manufacturer's warranty certificates if the manufacturer's warranty period is greater than the defects liability period.

2 . SANITARY AND PLUMPING SYSTEM

2.1. UTILITY WATER PIPES AND FITTINGS

2.1.1. Product

Comply with requirements in the drawings for applications of pipe, tube, fitting materials, and joining methods for specific services, service locations, and pipe sizes.

The Pipe shall be Polypropylene (PP-R) pipe and related fittings for water distribution and water service

Polypropylene Pipe: ASTM F 2389, pipe pressure rating shall comply with temperature and pressure ratings per the plumbing code requirements for the applicable service (water distribution, water service).

Polypropylene Fittings: ASTM F 2389, socket fusion, butt fusion, electrofusion, or fusion outlet fittings shall be used for fusion weld joints between pipe and fittings.

Mechanical fittings and transition fittings shall be used where transitions are made to other piping materials or to valves and appurtenances.

Polypropylene pipe shall not be threaded. Threaded transition fittings per ASTM F 2389 shall be used where a threaded connection is required.

2.1.2. Test

The Pipes shall to be tested on pressure 5 bars for 2 days.

Pressure gauge is required at one water outlet and closed all other outlets.

2.1.3. Water Heater

Instantaneous Water Heater Type

High Quality German made or any equivalent.

Power : 18 kW / 400 V – 50 Hz

Pressure tested : 10 bar

Temperature control knob is required.

Variable Power Capacity according to the Water Consumption

The Supervisor Engineer is responsible for the positioning of the required installation of the Instant Water Heater in accordance with Electrician and Plumper.

2.1.4. Test

The contractor shall submit a Guarantee, and operate the device twice a day for 15 minutes for 3 days before hand over.

2.2. DRAINAGE SYSTEM

2.2.1. Product

The Waste Water System is used PVC pipes (6 bars category) with all required fittings and branches, and within standard dimensions.

Joining pipes with PVC connecting joints (PVC Sockets). S-

trap is required to install under the wash basin.

Floor drain shall be supported with odor stopper.

Installed according to manufacture instructions and recommendations (Special Adhesive, Cleaning before joining ... etc.).

Minimum Required Inclination to installing pipes:

2"	□	2%
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3"~6"	□	1%
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Using the existing 4" pipe comes from existing manhole to connect and install the new pipes.

The contractor have to make sufficient inspection before installation the drainage system and check the slope and levels between the existing manholes or clean outlets and the level of

floor drains and W.C pipes.

The contractor is responsible to check and fix the existing rain drain system on the roof, and insure the quality of existing floor drain.

The Waste Water Pipes have to be installed always under the Utility water System, and have to be covered by cement layer at minimum thickness of 2 cm around the pipe and below the F.F.L at minimum depth of 10cm.

Vent pipes shall be stayed to roof; if fixings for stays penetrate the roof covering, seal the penetrations and make watertight.

2.2.2. General Notes

Provide all drainage pipes for the sanitary ware. These main waste pipes shall be 160 mm and 110 mm PVC. The contractor shall connect the sewerage lines to the existing sewer line.

If the slope in the area of works does not allow the contractor to bury the pipes, he shall fix the pipes on concrete bases or attach them properly to the walls. For each case of site, the contractor shall select the best way with full cooperation with Engineers.

All waste pipes from sanitary ware will have a water trap or siphon before it is connected to the main waste pipe. Provide cleaning eyes to each waste pipe for access to clear blockages.

Provide surface water drains to floor slab with water trap or siphon before connection to main waste pipe. Every floor drainage outlet shall be connected by 75 mm PVC pipe and fitted with stainless steel grill.

2.2.3. Test

The Pipes have to be tested before covering with cement layer by hydrostatic pressure column pipe (4" - 1 m length) mounted on the floor drain and W.C Inlet, and close all other openings by special test equipment or equivalent to do such a test.

2.3. SANITARY WARES

2.3.1. Product

High Quality Brands

White color

High quality Mixer taps are made of brass body and chrome finish, supplied with flexible hoses for hot and cold water.

Installed at a proper height and best fit places as manufacture instructions and recommendations.

Stainless steel hose connected to mixer tap in W.Cs.

Stainless steel floor drain cover.

Wash hand basins minimum dimensions 45x60cm, with chromium steel hot and cold taps; vandal proof stoppers & S-trap and they should install them in the marble table 3 cm thickness the sizes are according to the attached drawing. W.C commodes with flushing

cistern in each toilet & seat cover.

2.3.2. Test

All Sanitary wares have to be tested before installation, and notice if any scratching or fracture lines appear.

If any of previous noticed, the contractor must directly replace with new items without any proposed of their maintenance.

The UN Project Manager shall approve all the sanitary ware.

3 . VENTILATION

3.1. EXHAUST FAN

3.1.1. Product

Each W.C needs an individual exhaust fan, connected to outside air through pipes or direct exhausting at the wall or window.

The Kitchen also need a ventilation fan, with the requirement mentioned above. The selected model shall meet the mounting type.

Minimum Air Flow	:	Bathrooms
	:	50 l/s.
Kitchen	:	100 l/s.

All Ventilation fans shall be supplied with insects stopper or filter.

4 . GENERAL INSTALLATION PROCEDURE

Accessories:

Use manufacturer's brackets and accessories where these are available and suitable for the mounting substrate.

Protection:

Deliver fixtures to site protected from damage under site conditions by coatings, coverings and packaging. Remove only sufficient protection to permit installation.

BILL OF QUANTITIES

Estimated Bill of Quantity (CIVIL & ARCHITECTURAL)

No	Item	Description	Unit	Quantity	Delivery
1	Architecture				
	1.1	Demolition and excavation existing bathrooms and kitchen and the corridor attic as shown in as built plan (sections 1, 2)	L.S	1	2 months
	1.2	Supply and install floors ceramic tiles for the new bathroom	m ²	10	2
	1.3	Supply and install walls ceramic tiles (Graneett) for the new	m ²	40	2
	1.4	Supply and install Ceramic floor tiles (Graneett) (60x60 cm)	m ²	58	2
	1.5	Supply and install Ceramic skirtings for meeting room with all	M	45	2
	1.6	Painting Works for walls and ceiling including labors, materials and all required works	m ²	520	2
	1.7	External Rendering using white cement including insulation	m ²	240	2
	1.8	Supply and install Fixed Gypsum False Ceiling, with metal support structure for meeting room and bathrooms with all required works.	m ²	63	2 months
	1.9	Supply and install hollow bricks 10 cm according to the drawing all related works (plastering ,...)	m ²	50	2
	1.10	Supply and install new steel cantilever overhead for the path area in the garden with all	L.S	1	2 months
	1.11	Supply and install tiles matching the existing one for repairing	L.S	1	2
2	Windows and Doors				
	2.1	Supply and install Double Glazed Aluminium Windows with all related works (marble frame,...) and required	m ²	24	2 months
	2.2	Supply and install Steel bars 20 mm for Frame captures according to drawings with all related works and required accessories.	M	30	2 months
	2.3	Supply and install 200 micron SRF protection film for windows and doors glass	m ²	35	2
	2.4	Supply and install wooden doors according to drawing with all required works and accessories including painting.	No	5	2 months
	2.5	Supply and install steel doors according to drawing with all	No	5	2
	2.6	supply and install steel frame protection for window 6 according to drawing with all related works and accessories including painting.	Kg	465	2 months
	2.7	Supply and install steel metal sheet [thick = 4 mm] to cover the opening in the Office-4 and main existing stairs	L.S	1	2 months
3	Fence				
	3.1	Demolition the old craced bricks from the garden wall	L.S	1	2
	3.2	Supply and install bricks side along the garden (40x20 cm) height 85 cm with all related works including plastering.	m ²	25	2 months
	3.3	Supply and install out side paint with all related works.	L.S	1	

	3.4	Supply and install razor barbed fence (dia 50 cm), 8 loops per	M	28	2
4	Anti Blast Sand Wall				
	4.1	Excavation works for wall foundation with all related works.	m3	2	2
	4.2	Reinforced concrete for foundation with all related works.	m3	2	2
	4.3	Supply and install steel frame according to the drawings with all related works and accessories including painting.	Kg	3100	2 months

Estimated Bill of Quantity (CIVIL & ARCHITECTURAL)

No	Item	Description	Unit	Quantity	Delivery
	4.4	Supply and install 2 mm steel sheets according to the drawings with all related works and accessories including painting.	m2	70	2 months
	4.5	Supplying and pouring sand bags according to the drawings	m3	22	2 months
	4.6	Supply and install Base Plates as technical specifications and drawings with all related works and accessories	No	32	2 months
	4.7	Supply and install razor barbed fence (dia 50 cm), 8 loops per meter including rectifying the existing fence (painting ,	L.S	1	2 months

Estimated Bill of Quantity (MECHANICAL)

No	Item	Description	Unit	Quantity	Delivery
1	AIR CONDITIONING				
	1.1	Supply and install Air Conditioner 9000 BTU/h, and all required electrical installation, fittings and copper pipes....etc	No	2	2 months
	1.2	Supply and install Air Conditioner 12000 BTU/h, and all required electrical installation, fittings and copper pipes....etc	No	4	2 months
	1.3	Supply and install Air Conditioner 18000 BTU/h, and all required electrical installation, fittings and copper pipes....etc	No	1	2 months
	1.4	Supply and install Air Conditioner 24000 BTU/h, and all required electrical installation, fittings and copper pipes....etc	No	1	2 months
2	VENTILATION				
	2.1	Supply and install Ventilation exhaust fan for W.C, Server [EXF-1] with all required electrical installation , including pipe 110 mm diameter	No	4	2 months
	2.2	Supply and install Ventilation exhaust fan for kitchen [EXF-2]	No	1	2 months
	2.3	Supply and install Ventilation exhaust fan for SAFE ROOM [CEF] with all required electrical installation and mounting, including ducts, and exhaust diffuser as	No	1	2 months
3	BATHROOM				
	3.1	Supply and install Utility Water System (PPR pipes), including isolating valves, fittings and all other accessories for both cold and hot water [hot water to be thermally	Lump sum	1	2 months
	3.2	Supply and install Waste Water System (PVC pipes) and all required accessories and installation	Lump sum	1	2 months

	3.3	Supply and install Instant Water Heater [18 kW - 3PH] and all required Electrical and plumbing installation and	No	1	2 months
	3.4	Supply and install W.Cs and all required installation and Accessories	No	2	2 months
	3.5	Supply and install two Porcilen Wash Basin Integrated with Marble top Upstand and all required installation	No	2	2 months
	3.6	Supply and install Wash Basin Mixture tap with all required	No	2	2 months
	3.7	Supply and install W.C Mixture tap with all required accessories including toilet hose	No	2	2 months

Estimated Bill of Quantity (ELECTRICAL)

No	Item	Description	Unit	Quantity	Delivery
1	Distribution boards				
	1.1	Supply and install Main board Distribution Panel including all required installations and components such as circuit breakers, earth bar, connection cover	No	1	2 months
	1.2	Supply and install Mono-phase Regulator (100A) with all required electrical installations, cables and other accessories	No	3	2 months
2	Lighting				
	2.1	Supply and install Recessed LED light (Square) 28 W with all required electrical installations and accessories	No	14	2 months
	2.2	Supply and install Recessed LED light (Square) 6 W with all required electrical installations and accessories	No	6	2 months
	2.3	Supply and install Exposed LED light (Circular) 28 W with all required electrical installations and accessories	No	7	2 months
	2.4	Supply and install Exterior Flood light 50 W light with all required electrical installations and accessories including required switches	No	7	2 months
	2.5	Supply and install fluorescent light including 3X120 Cm fluorescent lamps with reflector with all required electrical installations and accessories including	No	8	2 months
	2.6	Supply and install Water-Proof light 1 fluorescent X40 W with all required electrical installations and accessories	No	3	2 months
	2.7	Supply and install Emergency light with all required electrical installations and accessories including required switches	No	8	2 months
	2.8	Supply and install Illuminated Exist Sign with all required electrical installations and accessories including required switches	No	2	2 months
3	Sockets				
	3.1	Supply and install single Schuko Sockets with all required electrical installations and accessories	No	27	2 months
	3.2	Supply and install double Schuko Sockets with all required	No	2	2 months
	3.3	Supply and install single weather proof Schuko Sockets with	No	9	2 months
	3.4	Supply and install double weather proof Schuko Sockets with	No	1	2 months

	3.5	Supply and install floor box Hub contains 4 x single schuko sockets and 4 x RJ45 data sockets with all required	No	1	2 months
4	Fire Alarm System				
	4.1	Supply and install Battery smoke detector (with stroop light and sounder) with all required electrical installations	No	12	2 months
	4.2	Supply and install Battery Heat detector (with stroop light and sounder) with all required electrical installations	No	1	2 months
	4.3	Supply and install CO2 Fire Extiguisher, 6 Kg with all required	No	1	2 months
	4.4	Supply and install Powder Fire Extiguisher ABC, 6 Kg with all	No	1	2 months
5	CCTV System				
	5.1	Supply and install Colored Indoor IP camera ceiling Dome Type with all required electrical and fixing installations	No	2	2 months

Estimated Bill of Quantity (ELECTRICAL)

No	Item	Description	Unit	Quantity	Delivery
	5.2	Supply and install Colored Outdoor IP camera with all required electrical and fixing installations	No	6	2 months
6	Data & Telephone				
	6.1	Supply and install Data socket with all required installations	No	42	2 months
	6.2	Supply and instal Network cabinet minimum 16-20 Unit to best is the bigger based on availability in the market installations and components with all required accessories and including the follwoings: - All cables to be terminated to patch panel on the network cabinet. - Each patch panel to be separated by cable organizer from the other patch panel. - Standard Numbering to be conducted on the outlet and	No	1	2 months
	6.2.1	Supply and install Patch cord 0.5 m to connect the patch panels to the net work switch.	No	50	2 months
	6.2.2	Supply and install 1 UPS rack mounted minimum 1500-2000	No	1	2 months
7	T.V				
	7.1	Supply and install Digital Sattelite T.V system to meeting room including: - Central Satellite Dish - HD Receiver - Coaxial cables - Cover plates, back boxes, labelling and/or engraving,	Lump sum	1	2 months
	7.2	Supply and install LED display 70 inch with all required accessories, finxing and mounting including cabling	No	1	2 months
	7.3	Supply and install ceiling mounting projector with all required accessories, finxing and mounting including cabling	No	1	2 months
	7.4	Supply and install motorized screen projector 2.5x2.5 m with	No	1	2 months
8	Access Point				

	8.1	Supply and install Access Point with all required electrical installations and accessories "Access point and switches to be consulted with ICT for approval of trade mark and model"	No	4	2 months
9	Cables				
	9.1	Supply and install (4x16)+16 mm ² NYY cable with all required	m	60	2 months
	9.2	Supply and install 5x4 mm ² NYA cables with all required electrical installations and accessories	m	10	2 months
	9.3	Supply and install 3x4 mm ² NYA cables with all required electrical installations and accessories	m	150	2 months
	9.4	Supply and install 3x2.5 mm ² NYA cables with all required electrical installations and accessories	m	400	2 months
	9.5	Supply and install 2x2.5 mm ² NYA cables with all required electrical installations and accessories	m	240	2 months
	9.6	Supply and install Cat 6-a UTP cables with all required electrical installations and accessories	m	1100	2 months
	9.7	Supply and install Cat 6-a Shielded cables with all required	m	50	2 months
	9.8	Supply and install Telephone Cable [20 pairs] with all required electrical installations and accessories	m	150	2 months
10	Earthing System				

No	Item	Description	Unit	Quantity	Delivery
	10.1	Supply and install Earthing system [2 earthing manhole, each has 50 mmx2m copper rod] as described in the Electrical Technical specification and in accordance to the drawings	Lump sum	1	2 months
11	Other				
	11.1	Supply and install change over to the Emergency Power Supply System [Diesel Generator] in accordance to the Existing ATS to ensure electricity feedback from one source to the building	Lump sum	1	2 months

Lot 2 - Provision of Civil Works to undertake the Construction and Renovations Works for UNDP Building

Security measures at first floor New UNDP new apartment.

The purpose of this work is to do security mitigation measures at the new first floor apartment located in the same main street of the UNDP.

Wooden doors

- 1- The main apartment wooden door (D1 see index 1) with the dimension of approx. (203cmx112cm) should reinforced with 6mm metal plate from the inside and adequate with the attached technical specifications. The door should be provided also with three good original locks. (See annex 1A).
- 2- The side main apartment wooden door (D2 see index 1B) with the dimension of approx. (203cmx88cm) should reinforced with 6mm metal plate from inside. The door should be provided also with three good original locks and an exterior metal burglar protection. (See annex 1B and annex 14).
- 3- The interior doors that have wooden structure with glass-in (D4-D5-D6-D7-D8-D9-D10-D11-D12). All glasses should be removed and replaced by a 6 mm wooden structure instead. (Quantity is 9 doors, according to the plan drawing- index 1).
- 4- The interior door (D3) which has a wooden structure with glass-in: the glass should be removed and replaced with 6 mm wooden structure as above. In addition, the upper part should be covered by two wooden panel of 6mm thickness for each side, including any necessary repairs and /or painting (according to the plan drawing, and index 1 and annex 10)
- 5- Supply and install new two wooden doors (D17& D18), with a similar design of the current doors structure with all required accessories and installations, including painting (according to the plan drawing, and index 2).
- 6- Supply and install additional metal door (D21 two parts, 97x 200 and 40x200cm) with all necessary accessories (according to index 2 and annex 12).
- 7- To maintain the two attics doors with all required accessories including painting according to the plan drawing, and index 1.
- 8- All locks of the apartment`s doors should be checked and substituted when needed.

Aluminum windows and doors:

- 9- Single layer Shelter Resistant Film (SRF) are required for all windows, (W2-W5- W6- W7- W8- W9-W11- W12- W14) According to the plan drawing and index 4. (Total quantity is 19 m2).
- 10- Double layer Shelter Resistant Film (SRF) in vice- versa installation shape are required for all the windows (W1- W3- W4- W 10) according to the plan drawing and index 4. Approx. (quantity is 27 m2).
- 11- All aluminum sliding doors (W3- W4- W7), according to the plan drawing and index 4 should be provided with frame catcher with all necessary accessories, these aluminum doors will be equipped with five verticals and two horizontal tubes of 40x40 mm steel capture (according to annex 3).

- 12- All aluminum sliding windows (W2- W6- W8- W9- W10) according to the plan drawing and index 4 should be provided with frame catcher with all necessary accessories, these windows will be equipped with three bars of 20mm steel capture. (According to annex 2).
- 13- The aluminum sliding windows (W1), according to the plan drawing and index 4 should be provided with frame catcher with all necessary accessories, this window will be equipped with frame catchers. According to annex 6.
- 14- Install one exterior metal box to (W10, see the plan drawing and index 4) with the attached technical specifications. (See annex 5).
- 15- The aluminum sliding door (W7) according to the plan drawing and index 3 should be provided with exterior metal burglar protections with all necessary accessories, according to (annex 11).
- 16- All aluminum sliding windows (W2- W6- W8- W9- according to the plan drawing and index 4) should be provided with exterior metal burglar protections with all necessary accessories (according to annex 11).
- 17- The aluminum sliding door (W11-W14) according to the plan drawing and index 3) should be provided with exterior metal burglar protections with all necessary accessories, according to (annex 14).
- 18- The aluminum door (W12) according to the plan drawing and index3 should be provided with exterior sliding metal burglar protections with all necessary accessories, according to (annex4).
- 19- Supply and install aluminum window (W9) approx. (100x150cm, according to the plan drawing and index 4).
- 20- General maintenance for all aluminum windows.

Safe heaven room

- 21- The wooden door (D14 see index 1) with the dimension of approx. (180cmx51cm) should replace by a reinforced metal door. The door should be provided with metal bar lock from inside the room. (See annex 8).
- 22- Supply and install additional sliding reinforced door (D20), in front of (D7) outside the safe heaven room. The door should be provided with metal bar lock. (See index 2 and annex 9).
- 23- Supply and install additional sliding reinforced window (D22) in front of (W5) inside the safe heaven room. The door should be provided with metal bar lock too. (See annex 13).



Metal bar lock

- 24- The aluminum sliding window (W5) according to the plan drawing and index3) should be provided with exterior metal burglar protections with all necessary accessories, according to (annex 14).

Emergency staircase:

- 1- Supply and install additional metal emergency staircase lead from the exterior edge of window (D5) to the back yard in the ground floor. The supporting metal tube structure (4x4x0.3cm), including labors, materials and all required works, according the plan drawings. approx. (160kg).
supporting metal tube structure/L shape/ (4x4x0.3cm), supporting the staircase body, including labors, materials and all required works, according the drawings, approx. weight (100kg).The metal plates (3mm) as stairs (dimension: 90x20cm) including labors, materials and all required works, according the drawings. approx. (80kg). The rail tube (3x3x0.2), including labors, materials and all required works, according the plan drawings .approx. (110Kg). (See the plan).

Metal stair case

- 2- Supply and install supporting metal tube structure/L shape/ (4x4x0.3cm), supporting the staircase body, including labors, materials and all required works, according the drawings, approx. weight (100kg).
2- Supply and install supporting metal tube structure (4x4x0.3cm), including labors, materials and all required works, according the drawings. approx. (220kg).
3- Supply and install metal plates as stairs (3mm), including labors, materials and all required works, according the drawings. approx. (240kg).

Metal staircase:

- 1- Supply and install metal plates (6mm), as double layers for walls and ceiling of the staircase body including labors, materials and all required works, according the drawings. Approx. (6912kg).
2- Supply and install additional part steel & cement as an extension ceiling to the ground floor next to the metal staircase with a thickness of 20 cm according to the plan drawing and section drawing. Approx. (4.5m²).
3- Painting Works/exterior and interior/ for walls, ceiling, including labors, materials and all required works, oil paint (semi-gloss) for all flat walls, ceiling and supporting tubes, two painting coats (interior& exterior). approx. (150m²).
4- Supply and install the stairs dressing with marble shits (thickness of 20m.m) including labors, materials and all required works, according the drawings. Approx. (18m²).

Fire alarm System:

- 1- The fire alarm system will contain detector units in each and every room and closed space in the apartment (see annex 16) and they are as follows:
- 2- Heat detectors (H) (quantity is 1) in the main kitchen. And smoke detectors (S) (quantity is 6) in addition to two manual alarm buttons(M) as described and shown in the main floor plan (see Index 6 and annex 16), in addition to two alarm sirens located as follow :
 - One siren with flashes located inside the floor as described and shown in the main floor plan.
 - One Siren with flashes located in the security guards control room in the ground floor.

CCTV System:

- 1- Indoor cameras (IC) (Quantity: 7) and outdoor cameras (OC) (Quantity: 7) located as described and shown in the main floor plan (Index 6, and annex 16). All cameras will be connected to the DVR and the screen located in the main security guards control room in the ground floor.

All technical specifications / for the said cameras will be detailed in the IT sheet of requirements.

Outdoor Projectors led light:

- 1- Outdoor projectors led light (50 w – Quantity is 7) should be provide and located as described and shown in the main floor plan (see Index 6 and annex 16). All projectors light will be connected and controlled by the convenient switch breakers that will be supplied and installed in the security guards control room in the ground floor.

Civil work.

The purpose of this work is to do civil work at the new first floor apartment located in the same main street of the UNDP.

- 1- Painting works for walls and ceiling including labors, materials and all required works. Approx. (Quantity is 400m2).
- 2- Painting works for roller shutters including labors, materials and all required works. (Quantity 9, see index 1).
- 3- Supply and install fixed gypsum board with metal support structure according to the plan drawing, as additional walls in salon and kitchen. Approx. (Quantity is 85m2).
- 4- Supply and install additional convenient ceramic skirt fixed to the additional gypsum board wall (two sides) in kitchen. Approx. (Quantity is 11m).
- 5- Supply and install additional convenient marble skirt fixed to the additional gypsum board wall (two sides) in salon. Approx. (Quantity is 28m).
- 6- Remove the glass within the balcony's railings.
- 7- Install two metal plate layers of 6mm thickness to the three ceiling openings (according to the plan and Annex 7).

Kitchen

- 1- Supply and install fixed gypsum board as a wall with metal support structure to close the slot of door (D16) according to the plan drawing. approx. (1.5 m2).
- 2- Peeling off and modifying the existing kitchen basin and the kitchen closet, according to the plan drawing.
- 3- Peeling off and excavation works of the existing concrete edge under the kitchen window (D9). Approx. (2.8m3).
- 4- Check and repair the existing drainage system on the apartment/ when necessary/.
- 5- Supply and install water system (PEX tubing) outlets valve fitting, in kitchen with all necessary accessories.
- 6- Supply and install waste water system (PVC tubing), in kitchen with all necessary accessories.
- 7- Supply and install circle ceiling Lighting device in every indoor space and staircase, 220V 2x26W installed in Ceiling-Flash Power Save lamp with all accessories.

Air conditioning and ventilation

- 1- Supply and install two A.C. split system unit (1800 BTU) in saloon.
- 2- Cleaning the indoor and the outdoor units of the central air conditioning system.
- 3- Cleaning the indoor and the outdoor units split unit.
- 4- Supply and install Ventilation Industrial fan for safe heaven room with all required electrical installation.
- 5- Supply and install Ventilation Industrial fan for kitchen and two bathrooms with all required electrical installation.






Bill of Quantities

	First Floor - Estimated Bill of Quantity (Civil)			
Item		Description	Unit	Quantity
Security measures& mitigation	1-1 Doors	The main apartment wooden door (D1 see index 1) with the dimension of approx. (203cmx112cm) should reinforced with 6mm metal plate from inside, should be provided with metal bar lock too to adequate with the attached technical specifications. (See annex 1A).	No	1
		The side main apartment wooden door (D2 see index 1) with the dimension of approx. (203cmx88cm) should reinforced with 6mm metal plate from inside, should be provided with metal bar lock too and should be provided with an exterior metal burglar protection. (See annex 1B and annex 14).	No	1
		Remove the glass panels and replace with 6 mm wooden structure for the doors (D4-D5-D6-D7-D8-D9-D10-D11-D12) including any necessary repairs, including painting according to the plan drawing, and index 1-(for D3 annex 10)	No	9
		Remove the glass panels and replace with 6 mm wooden structure for doors(D3), and supply two wooden panel of 6mm thickness to the upper part of the door, including any necessary repairs, including painting according to the plan drawing, and index 1 and annex 10)	No	1
		Supply and install additional two wooden doors (D17& D18), similar shape to the current doors, with all required accessories and installations, including painting (according to the plan drawing, and index 2).	No	2
		Supply and install additional metal door (D21 two parts, 97x 200 and 40x200cm) with all necessary accessories (according to index 2 and annex 12).	No	1
		To maintain of the two attics doors with all required accessories including painting according to the plan drawing, and index 1	No	2
		All locks of the apartment`s doors should be checked.	No	Lump sum
	1-2 Windows	Supply and install single shelter resistance film (SRF) (200 microns inside only) for aluminum windows and doors glass (W2-W5-W6-W7-W8-W9-W11-W12-W14) according to the plan drawing and index 4	m²	19
		Supply and install double shelter resistance film (SRF)Vice-versa (200 microns inside and outside) for the front windows and doors glass that facing the street (W1-W3-W4-W10) according to the plan drawing and index 4	m²	27
		All aluminum sliding doors (W3- W4- W7), according to the plan drawing and index 4) should be provided with frame catcher with all necessary accessories, these aluminum doors will be equipped with steel capture according to annex 3.	No	3
		All aluminum sliding windows (W2-W6-W8-W9-W10), according to the plan drawing and index 4) should be provided with frame catcher with all necessary accessories, these windows will be equipped with steel catcher. According to annex 2.	No	5
		The aluminum sliding windows (W1), according to the plan drawing and index 4) should be provided with frame	No	1

		catcher with all necessary accessories, this window will be equipped with steel catcher. According to annex 6.		
		Install one exterior metal box to (W10, see the plan drawing and index	No	1
		The aluminum sliding door (W7) according to the plan drawing and index3) should be provided with exterior metal burglar protections with all necessary accessories, according to (annex 11).	No	1
		All aluminum sliding windows (W2-W6-W8-W9) according to the plan drawing and index3) should be provided with exterior metal burglar protections with all necessary accessories, according to (annex 11).	NO	4
		The aluminum sliding door (W11-W14) according to the plan drawing and index3) should be provided with exterior metal burglar protections with all necessary accessories, according to (annex 14).	No	2
		The aluminum door (W12) according to the plan drawing and index3) should be provided with exterior sliding metal burglar protections with all necessary accessories, according to (annex4).	No	1
		Supply and install aluminum window (W9) approx. (100x150cm, according to the plan drawing and index 4).	No	1
		Maintenance for all aluminum windows.	No	14
1-3 Safe heaven room	3-1	The wooden door (D14 see index 1) with the dimension of approx. (180cmx51cm) should reinforced with 6mm metal plate from inside the heaven room. The door should be provided with metal bar lock too. (See annex 8 and annex 11).		1
	3-2	Supply and install additional sliding reinforced door (D20), in front of (D7) outside the safe heaven room. The door should be provided with metal bar lock too. (See annex 9).		1
	3-3	Supply and install additional sliding reinforced window (D22) in front of (W5) inside the safe heaven room. The door should be provided with metal bar lock too. (See annex 13).		1
	3-4	The aluminum sliding window (W5) according to the plan drawing and index3) should be provided with exterior metal burglar protections with all necessary accessories, according to (annex 14).		1
1-4 Metal emergency staircase	Supply and install additional metal emergency staircase lead from the edge of window (D5) to the back yard in the ground floor. 4-1 The supporting metal tube structure (4x4x0.3cm), including labors, materials and all required works, according the plan drawings. approx. 4-2 Supply and install supporting metal tube structure/L shape/ (4x4x0.3cm), supporting the staircase body, including labors, materials and all required works, according the drawings, approx. weight (100kg). 4-3 The metal plates (3mm) as stairs (dimension: 90x20cm) including labors, materials and all required works, according the drawings. 4-4 The rail tube (3x3x0.2), including labors, materials and all required works, according the plan drawings. (See the plan).		Kg	460

Metal staircase Index 5					
Metal tube					
Item	Description	Dimensions mm	Thickness mm	Length M	Weight Kg
8-1	Supply and install supporting metal tube structure/L shape/, including labors, materials and	40x40	3m.m	57	100

	all required works, according the drawings				
8-2	Supply and install supporting metal tube structure, including labors, materials and all required works, according the drawings	40x40	3m.m	63	220
Metal plates					
8-3	Supply and install metal plates as stairs, including labors, materials and all required works, according the drawings		3m.m	10m2	240
8-4	Supply and install metal plates, as double layers for walls and ceiling of the staircase body including labors, materials and all required works, according the drawings		6m.m	72m2	6912
Ceiling extension		Area	Unit		
8-5	Supply and install additional part steel & cement as an extension ceiling to the ground floor next to the metal staircase with a thickness of 20 cm according to the plan drawing and section drawing.	4.5	m²		
8-5	Painting				
8-5-1	Painting Works for walls, ceiling, and the supporting tubes, including labors, materials and all required works, oil paint (semi-gloss) for all flat walls, ceiling and supporting tubes, two painting coats (interior& exterior).	150m2			
8-6	Stairs dressing				
8-6-1	Supply and install the stairs dressing with marble shits (thickness of 20m.m)including labors, materials and all required works, according the drawings	18m2	-	-	-

Index 6			
Fire alarm system			
Symbol	Item	Description	Quantity
		The fire alarm system will contain detector units in each and every room and closed space in the apartment (see annex 16) and they are as follows:	
H	Heat detector	In main kitchen space	1
S	Smoke detector	In all spaces (according to annex 16)	6
M	Manual alarm button	As shown in the main first floor (annex 16)	2
	Siren with flashes	Located inside the first floor as described and shown in the first floor plan.	1
	Siren with flashes	Located in the security guards control room in the ground floor plan.	
CCTV system			
	Indoor cameras	The places as described and shown in the main floor plan (annex 16). All technical specifications of the cameras will be detailed in the IT sheet of requirements.	7
	Outdoor cameras	The places as described and shown in the main floor plan (annex 16). All technical specifications of the cameras will be detailed in the IT sheet of requirements.	6
Outdoor Projectors led light			
	Outdoor projectors led light (50 w) should be provide and located as		7

	described and shown in the main floor plan and annex 16). All projectors light will be connected and controlled by the convenient switch breakers that will be supplied and installed in the security guards control room in the ground floor.	
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Civil work				
Item	Title	Description	Unit	Quantity
Architecture	1-1 Painting	Painting Works for walls and ceiling including labors, materials and all required works, oil paint (semi-gloss) for all flat walls two coats including touch up by putty with all work needed, especial treatment for the damaged spots in the walls	m ²	400
		Painting works for roller shutter including labors, materials and all required works.	No	9
	1-2 Additional gypsum board walls in kitchen and salon	Supply and install Fixed gypsum board for wall with metal support structure according to the plan drawing	m ²	85
		Supply and install additional convenient ceramic skirt fixed to the new gypsum wall (two sides) in the kitchen	M	11
		Supply and install additional convenient marble skirt fixed to the new gypsum wall (two sides) in salon	M	28
	3-	remove the glass within the balcony`s railings.	No	Lump sum
	4-	Install two metal plate layers of 6mm thickness to the three ceiling openings. (According to the plan and Annex 7).	m ²	4.5
	5- kitchen	4-1 Supply and install Fixed gypsum board as a wall with metal support structure to close the slot of door (D16) according to the plan drawing	m ²	1.5
		4-2 Peeling off and modifying the existing kitchen basin and the kitchen closet, according to the plan drawing.	No	Lump sum
		4-3 Peeling off and excavation works of the existing concrete edge under the kitchen window (D9) (see the current plan drawing).	m 3	0.5
		4-4 Check and repair the existing drainage system on the apartment/ when necessary/.	-	Lump sum
		Supply and install water system (PEX tubing) outlets valve fitting, in kitchen with all necessary accessories.	-	Lump sum
		4-5 Supply and install waste	-	Lump sum
	5 Light device	5-1 supply and install circle ceiling Lighting device in every indoor space and staircase, 220V 2x26W installed in ceiling-Flash Power Save lamp with all accessories.	Piece	17
	6 Air conditioning	6-1 Supply and install two A.C. split system unit (1800 BTU) in saloon.		2
		6-2 Cleaning the indoor and the outdoor units of the central air conditioning system.		Lump sum
		6-3 Cleaning the indoor and the outdoor units of the air conditioner split unit.		1
	7 ventilation	7-1 Supply and install Ventilation Industrial fan for safe heaven room with all required electrical installation.		1
		7-2 Supply and install Ventilation Industrial fan for kitchen and two bathrooms with all required		3

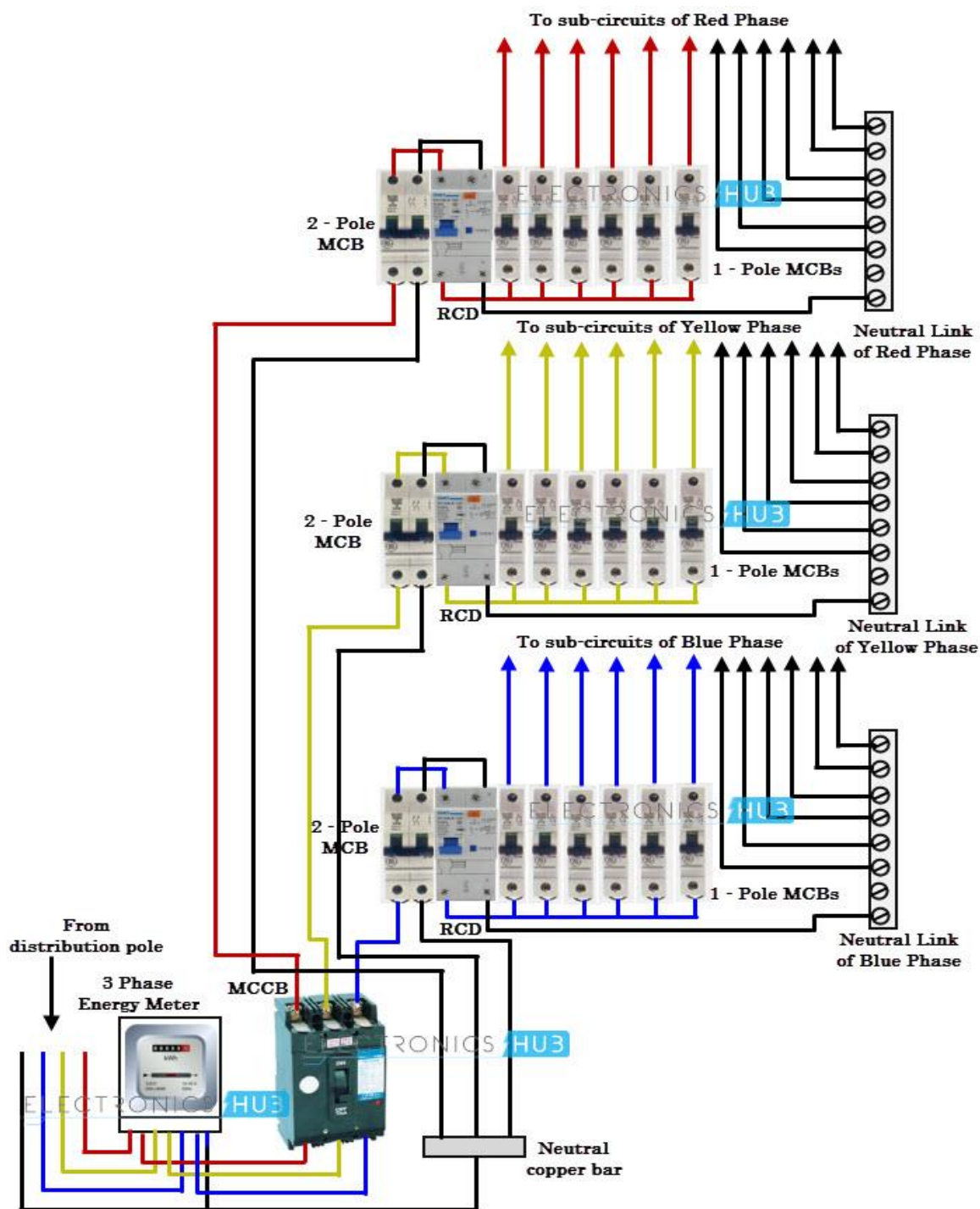
		electrical installation.		
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Index 7- Electrical Sow					
Total Price	Unit Price	Qty.	Description	Item	No.
		1	<ul style="list-style-type: none"> - Capacity not less than 36 MCB circuit breakers. - Eaton/ Moeller, Legrand, Hager or equivalent... - Wall mounted / indoor. - Transparent impermeable cover. - Place for labeling each breaker. - Layout as per attached drawing. -Installed below the existing Main Distribution Board. 	Main Distribution Board	1
		3	<ul style="list-style-type: none"> -Phase Indication Light. -To be installed in the new Main Distribution Board. 	Phase Indication Lights	2
		1	<ul style="list-style-type: none"> - Eaton/Moeller, Legrand, Hager or equivalent... - MCCB 60-63A – Three Pole. -To be installed next to the 3-Phase Energy Meter. 	Circuit Breaker	3
		3	<ul style="list-style-type: none"> - Eaton/Moeller, Legrand, Hager or equivalent... - MCB 60-63A – 2-Pole. -To be installed in the new Main Distribution Board. 	Circuit Breaker	4
		3	<ul style="list-style-type: none"> - Eaton/Moeller, Legrand, Hager or equivalent... - 60-63A – 2-Pole. 30 mA Trip Current. -To be installed in the new Main Distribution Board. 	RCD	5
		11	<ul style="list-style-type: none"> - Eaton/Moeller, Legrand, Hager or equivalent... - MCB 20A - SP - To be installed in the new Main Distribution Board. 	Circuit Breaker	5
		25	<ul style="list-style-type: none"> - Eaton/Moeller, Legrand, Hager or equivalent... - MCB 25A - SP - To be installed in the Main Distribution Board. 	Circuit Breaker	6
		3	<ul style="list-style-type: none"> -15 KVA single phase Automatic Voltage Regulator (220 VAC – 50 Hz). -Al-Hadara or equivalent. -LCD display (Voltage, Current, etc.). -OFF/By-pass Switch. -Installation place to be determined during site survey. 	Automatic Voltage Regulator	7

			-To be installed between the 3 Phase MCCB 60-63A and the 2-pole 60-63A MCB's.		
		68	<ul style="list-style-type: none"> -Preferable EU origin. -Wall mounted. -Grounding clips. -To be installed as per the apartment layout drawing. 	Wall sockets Schuko	8
		To be determined by contractor upon site survey in agreement with UNDP	<ul style="list-style-type: none"> -Hosh Blas NYY Cables: -3x2.5 mm2, 3x4mm2, 3x16mm2.etc... -To be connected between every 25A circuit breaker installed in the main distribution board and every 4 x Schuko sockets as per the attached layout. -To be connected between every 20A circuit breaker installed in the main distribution board and every AC, IT cabinet and Fire System locations as per the attached layout. 	Power cables	9
		To be determined by contractor upon site survey in agreement with UNDP	-Sizes to be determined by the contractor to fit all power cables, IT and phone cables connected to every room as per the attached layout.	PVC Conduits	10
		1	-Old and new Main Distribution Boards to be connected also to the ATS output of the Genset.	Genset connection	11
		To be determined by contractor upon site survey in agreement with UNDP	-Existing Ground for the apartment below shall be tested by the contractor. In case the resistance measured lies between 0.5 Ohm and 5 Ohm the ground of the new apartment can be connected to the existing one. Otherwise a new grounding net has to be established.	Grounding net	12
		2	<ul style="list-style-type: none"> -Shall be from a well-known manufacturer. -Cold and Hot Air Conditioning. -18000 BTU / 1.5 Ton. -Silent Operation. 	Air Conditioners (Split-Units)	13

Terms and Conditions:

1. Site Visit is mandatory for anybody who wants to participate in the electricity part of the tender.
2. All items provided should have a one Year warranty.
3. Printed labels for all breakers in the new and old Distribution Boards indicating the room numbers and items connected shall be provided.
4. Lighting, Kitchen, Bathrooms, Central Air Conditioning unit and all non-Schuko sockets shall be connected to the existing Main Distribution Board.
5. Contractor has to inspect the existing electricity network and conduct any needed maintenance or replacement of faulty cables, switches or sockets connected to the existing Main Distribution Board.
6. Electrical works shall not exceed 2 weeks.
7. All electrical works will be supervised by a UNDP engineer in order to meet all the needed requirements related to modifications and or additions.



Index8- IT works					
Total Price	Unit Price	Qty	Description	Item	
		1	-24U -Preferable EU origin made -Has a transparent impermeable cover with lock and key -Equipped with fan and two multi socket power -Shelf included	Communication Cabinet	1
		2	-Brand 3M -RJ45 48 ports cat 6 -To be installed in the communication cabinet	Patch Panel	2
		2	-Brand : Cisco 24 ports switch -24 10/100 Ethernet ports -2 10/100/1000 Ethernet ports -2 POE ports -To be installed inside the communication cabinet	Network switch	3
		100	-Brand: 3M -1m length - cat 6	Patch cord cables	5
		27	-Brand: 3M -Includes one RJ45 jack and one RJ11 jack -Includes two labeling area -The RJ45 and RJ11 jacks should be frontal (not facing the ceiling or the ground) -To be installed as per the drawing	Voice& Data wall outlet	6
		12	-Brand: 3M -Includes one RJ45 jack - The RJ45 jack should be frontal (not facing the ceiling or the ground) -To be installed as per the drawing	Data wall outlet	7
		To be determined by contractor upon site survey	-Cat 6 STP -To be connected and terminated to the patch panel from one side and to data outlets from the other side as per the drawing	Data cables	8
		To be determined by contractor	-Brand: 3M -Cat 6 STP (Cable for each outlet) -To be connected and terminated to the voice	Phone cables	9

		upon site survey	patch panel from one side and to voice outlets from the other side as per the drawing		
		To be determined by contractor upon site survey	-Made of good plastic quality -Sizes to be determined by the contractor to fit all data & phone cables extended to every data/voice outlet as per the drawing	Conduits	10
		2	-Cat 6 SFTP to be extended between both 2nd floor communication cabinet and 1st floor 's cabinet	Ethernet Cable	11
		1 cable with approximately 80m length	- 32 or 48 Pair cable to be connected between both communication cabinet 's voice patch panel and 1st floor 's voice patch panel	Voice cable	12
		2	-Brand: Cisco -2.4 GHz -Type: indoor -POE -802.11 bgn -Features: DHCP,MAC filtering,WPA,WPA2,WEP -Multiple SSID -Support Vlan -Operational modes: AP, WDS, Wireless bridge -Preferable US brand -To be installed as per the drawing	Wireless Access point	13
		1	-Type: Online -Form factor: Rack mounted -Preferable US or EU origin -To be installed in the communications cabinet	1 KVA UPS	14
		Please refer to security Section for the quantity and location	-Fixed dome -Color -Lenses: 6 mm -Resolution: 700 TVL - 25fps -No audio -Motion detection -IR: range 45ft ,work in total darkness -Day/night vision: Auto switch between night and day mode	Indoor camera	15

			-Connectivity: BNC -Motion detection support		
		Please refer to security Section for the quantity and location	Outdoor with wall/ceiling mount kit -Color -Lenses: 2.6-12 mm -Weather Proof - Resolution: 700 TVL - 25 fps - No audio - Motion detection - IR: range 45ft ,work in total darkness - Day/night vision: Auto switch between night and day mode - Connectivity :BNC - Motion detection support	Outdoor camera	16
		To be determined by contractor upon site survey	-Combined Data & power -To be extended between 1st floor 's DVR and outdoor/indoor cameras	Camera Power and data cables	17
		1	-Capacity should be sufficient to support 15 cameras -To be installed in 1st floor cabinet	Power Unit	18

Strengthen the UNDP Main Building Against Terrorist Explosion and Architectural Renovation

1.1 Project Synopsis

The Building of UNDP located in Damascus is required meet united nation standards in security.

The project is described as “Strengthen the UNDP Building Against Terrorist Explosion and Architectural Renovation”, Damascus, Syria.

The Contractor should provide all necessary materials, labor, transportation, equipment, investigation and supervision, etc.

Work will performed within in fixed-price contract.

2. Scope of Work

The scope of work is security mitigation and meeting room renovation “Make Ready” according the attached Technical Specifications; the contractor shall be providing all materials, tools and equipment,

labors, transportation, and supervision.

Each stage of the project will require approval from the Responsible Engineer before moving on to the next stage. The selected contractor must ensure he/she has adequate resources for designing, building, testing, and implementing the renovation works. Specific deliverables and milestones will be listed in the Work Requirements and Schedules and Milestones sections of this SoW.

All works shall be executed by a qualified Engineers and Technicians who are specialized in this field of work.

Contractor shall submit a construction schedule to accomplish the above works.
UN will provide source of electricity and a water point for construction.

2.1. General Requirements

Within 5 days of Notice to Proceed, the contractor shall provide to the responsible Engineer a project schedule showing start to completion including significant milestones.

Within 10 days of Notice to Proceed "NTP", the Contractor shall provide to the Responsible Engineer details of the proposed installation utilizing written description or sketches or both.

The Contractor is responsible to dispose of the construction debris legally. Include, but not limited to soils, rock excavation, packing materials and scrap steel.

When pursuing the work, the contractor is to take extra care as not to damage existing structures.

Submittals: The Contractor shall prepare a Format of Submittals and a list of all submittals, such as material approval, method statements, approval status of work to be done, etc., before the commencement of the works.

Works: The Contractor shall not undertake any works and shall not cover up any work prior to obtaining the approval from the UN Project Manager.

Materials and Fixtures: Samples of all materials and fixtures, before they are used on the project, must be presented to the UN Project Manager for inspection and approval. As and when requested, the Contractor shall provide all the test certificates for the materials, which are going to be used for the works.

As part of the Strengthen UNDP building Project the Contractor will be responsible for performing tasks throughout various stages of this project.
The following is a list of these tasks which will result in the successful completion of this project:

3.1. Kickoff

Contractor will create and present detailed project plan including schedule, WBS, testing plan, implementation plan, and transition plan.
Contractor will present project plan to the Responsible Engineer for review and approval.

3.2. Planning Phase

Work with the responsible Engineer to gather requirements and establish metrics.
Create shop drawings based on collected requirements.
Develop detailed shop drawings to the responsible Engineer for review and approval.
Present written status at weekly meeting.

3.3. Execution Phase

Contractor will implement the project according the attached Technical Specifications.

Contractor will begin execution with the support and approval of the Responsible Engineer at this point forward until the end of the period of performance.

Present written status at weekly meeting.

On the working site, the Contractor shall:

- *Ensure that the safety norms and regulations are strictly followed at all times. The Contractor would be requested to immediately dismiss from the site the workers in violation of these regulations.*
- *Ensure that the proper equipment and methods are used to carry out the works.*
- *Ensure that all surplus and debris is disposed of the site and outside the UN premises, unless otherwise instructed.*

3.4. Project Handoff/Closure

Contractor will provide the Responsible Engineer with all documentation in accordance with the approved project plan.

Contractor will present project closure report to the responsible Engineer for review and approval.

Contractor will complete the project requirements checklist showing that all project tasks have been completed.

At completion of work, the Contractor shall clean any impacted areas to a condition equal to original condition.

All shipping materials and construction debris are to be disposed of in a legal manner outside of the Compound.

Prior to Final Acceptance the Contractor shall submit to the Responsible Engineer marked up drawings (As-Built) reflect the work as constructed.

The drawings shall be digitally submitted on a CD-ROM in both AutoCAD and PDF format.

The contractor shall review the drawing with the supervisor engineer before any related works and request approvals of every items location

For the Strengthen UNDP Building Project the acceptance of all deliverables will reside with the Responsible Engineer in order to ensure the completeness of each stage of the project and that the scope of work has been met. Once a project phase is completed and the Contractor provides his report/presentation for review and approval, the Responsible Engineer will either sign off on the approval for the next phase to begin, or reply to the Contractor, in writing, advising what tasks must still be accomplished.

Once all project tasks have been completed, the project will enter the handoff/closure stage. During this stage of the project, the Contractor will provide his project closure report and project task checklist to the responsible Engineer. The acceptance of this documentation by the responsible Engineer will acknowledge acceptance of all project deliverables and that the Contractor has met all assigned tasks.

Any discrepancies involving completion of project tasks or disagreement between the responsible Engineer and the chosen Contractor will be referred to both organizations' contracting offices for review and discussion.

5. Other Requirements

SAFETY (Accident Prevention)

1 . The Contractor shall provide and maintain work environment and procedures which will:

(a) Safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities.

(b) Avoid interruptions of Government operations and delays in project completion dates.

(c) Control costs in the performance of this contract.

2 . For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall:

(a) Provide appropriate safety barricades, signs, and signal lights.

(b) Comply with the standards issued by the Secretary of Labor at 29 CFR part 1926 and 29 CFR part 1910.

(c) Ensure that any additional measures the responsible Engineer determines to be reasonably necessary for the purposes are taken.

3 . Whenever the responsible Engineer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the responsible Engineer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action.

This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action.

If the Contractor fails or refuses to promptly take corrective action, the responsible Engineer may issue an order stopping all or part of the work until satisfactory corrective action has been taken.

The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

4. The Contractor shall insert this clause, including this paragraph (4), with appropriate changes in the designation of the parties, in subcontracts.

5. The contractor responsible for all the works is essential to complete the project and the study doesn't cover it, and that based on the site inspection by the contractor before delivering a quotation for the project

- 1 . The Responsible Engineer (RE). Will be assigned from UNDP to ensure quality assurance goals are met. The Contractor shall provide the Responsible Engineer access to the site at all times.
- 2 . Point of Contact. The Responsible Engineer shall be the main point of contact for this Project. The Contractor shall report to the Responsible Engineer on (a) status of the Project, (b) changes in Schedule, (c) accidents and safety issues, (d) disruptions to elevator or utility services; and all other important information pertaining to the Project.
- 3 . English Speaking Representative. The Contractor shall provide an English-speaking representative on-site during all working hours with the authority to make all decisions on behalf of the Contractor and subcontractors.
- 4 . Management Personnel. The Contractor shall staff the site, full-time, with a competent senior manager who shall perform project management. Remote project management is not an option. This individual shall keep a detailed photographic and written history of the project and shall update the Responsible Engineer weekly.
- 5 . Site Security. The Contractor is responsible for on-site security as necessary to ensure no unauthorized access to their work sites. The Contractor is 100% responsible for securing their working materials and equipment. Any damage to facilities or infrastructure, which happens due to a lack of security, will be the responsibility of the Contractor to correct.
- 6 . Contractor's Temporary Work Center. The Contractor will be permitted to use a designated area within the contract limits for operation of his construction equipment and office if warranted. If directed by the Responsible Engineer, the Contractor shall not receive additional compensation to relocate his operations. The Contractor is responsible for obtaining any required additional mobilization area above that designated. On completion of the contract, all facilities shall be removed from the mobilization area within 5 days of final acceptance by the Contractor and shall be disposed of in accordance with applicable host government laws and regulations. The site shall be cleared of construction debris and other materials and the area restored to its final grade. The Contractor is responsible for maintaining this area in a clear orderly manner.
- 7 . Health and Safety. The Contractor shall be solely responsible for risk assessments, managing health, and safety issues associated with this project. The Contractor must provide cold water to all workers at the job sites. Based on hazard assessments, Contractors shall provide or afford each affected employee personal protective equipment (PPE) that will protect the employee from hazards. At a minimum PPE shall consist of eye protection, hard hats, and closed toe shoes. If the workers arrive on-site with sandals or athletic shoes, the Contractor is expected to provide rubber boots to them or send them home. All construction workers and management personnel must wear hard hats at all times on the construction sites. Contractor provided rubber boots and rubber gloves shall be worn when working around concrete placement. Other PPE such as gloves, dust masks, air respirators (sewage work) are also recommended. These items must be provided at the Contractor's expense. Workers may use discretion if they feel unsafe in using the equipment in a hostile environment. Any worker at an elevated location above 4 meters, with the exception of a portable ladder, must be provided and utilize a safety harness.
- 8 . Progress Payments. If the contract awarder expects to receive more than one (1) progress payment, the Contractor must submit a broken out Cost Proposal with a Schedule of Values in order to properly calculate the percentage of contract completion.

1.Civil Technical Specifications.

1.1. Steelworks.

1. Contractor will provide all materials, labor and equipment required to complete the works in every respect, whether such materials are required as part of the permanent structure or a temporary one. These are such that shall be required for fabrication or erection or maintenance including specifically structural steel plates, flats, bars, welding rods, rivets, bolts and nuts, paint, welding sets in the shop and at site. Contractor shall provide all workshop facilities, derricks, cranes, pulley blocks, wire ropes, hemp or manila ropes, winches, erection cleats and temporary braces or supports and all other materials required to deliver the Works completed in every respect.
2. The Contractor shall prepare all the necessary fabrication shop drawings and these shall be submitted to the Project Manager for approval before fabrication is commenced. All such drawings shall show the dimensions of all parts, method of construction, welding and bolting. Also, the Contractor shall submit for approval a list of all material along with the samples and the test certificates.
3. The Contractor shall comply with all safety requirements for erection of structural steelwork. For all the works, workmanship shall be of first class quality, through true to line, level and dimension as shown in the drawings or instructed by the Project Manager.
4. The welding electrodes shall be of the best quality and of an appropriate grade. All welding electrodes shall be stored properly and kept dry. Any electrode, which has part of its flux coating broken away or is damaged, shall be rejected.
5. Bolts and nuts used for the works shall, unless otherwise specified, be black bolts and nuts manufactured by an approved manufacturer.
6. For all the works, workmanship shall be of first class quality, through, true to line, level and dimension as shown in the drawings or instructed by the Project Manager. The Contractor shall submit for approval a list of all material along with the samples and the test certificates. Comply with all safety requirements for erection of structural steelwork
7. All parts assembled for bolting shall be in close contact over the whole surface and all bearing stiffeners shall bear tightly at top and bottom without being drawn or caulked. The component parts shall be so assembled that they are neither twisted nor damaged. Drilling done during assembling shall not distort the metal or enlarge holes. The butting surfaces at all joints shall be so cut and milled so as to butt in close contact throughout the finished joints.
8. Hand flame cutting and punching of holes will not be permitted.
9. All welding for the works shall be carried out by first class welders. The Project Manager may at his discretion order periodic tests for the welder and /or of the welds produced. The Contractor shall carry out all such tests at his cost.
10. As much as possible, the welding work shall be done in the shop. The pieces shall be manipulated to ensure down hand welding for all shop joints as far as possible. All parts to be welded shall be arranged so as to fit properly on assembly. After assembly and before the general welding is to commence, the parts are to be tack welded with small fillet or butt welds as the case may be. The tack welding must be strong enough to hold the parts

and shrinkage stresses be reduced to a minimum.

11. All members of trusses and lattice girders shall be straight throughout their length, unless shown otherwise on the drawings, and shall be accurately set to the lines shown on the drawings. Sheared edges of gussets or other members to be straightened and dressed where necessary.
12. The Contractor shall be responsible for checking the alignment and level of foundation and correctness of foundation bolt centers, well in advance of starting erection work, and shall be responsible for any consequences or for non-compliance thereof. Discrepancies, if any, shall immediately be brought to the notice of the Project Manager.
13. Contractor shall be responsible for accurately positioning, leveling and plumbing of all steelwork and placing of every part of the structure in accordance with the approved drawings and to the satisfaction of the Project Manager. All stanchion base, beam and girder bearings etc. shall be securely supported on suitable steel packs. All reference and datum points shall be fixed near the work site for facilitating the erection work.
14. All steelwork shall be erected in the exact position as shown on the drawings. All vertical members shall be truly vertical throughout and all horizontal members truly horizontal, fabrication being such that all parts can be accurately assembled and erected. No permanent bolting, welding or grouting shall be done until proper alignment has been obtained.

1.1.1 Steel Doors and Windows

1. Unless otherwise specified or standard profile from commercial mild steel sheets the thickness of the door frame shall be minimum 1.25mm thickness. The profile shall be such as to suit the door specified. Each frame shall consist of hinge jamb, lock jamb, head and base ties 25mm x
2. 1.25mm thick or have specified angle threshold. The whole frame shall be of welded connection or rigidly fixed together by mechanical means. MS holdfasts shall be same as specified for wooden doorframes. Necessary adjustable lock strike plate shall be provided to make provision for locks or latches.
3. Unless otherwise specified, the frame shall be given a phosphate treatment after surface preparation and followed by two coats of paint, which shall be baked after applying.
4. Where hot dip galvanizing is specified the same shall be carried out.
5. The frames shall be delivered and stored at site without any distortion or damage. They shall be erected with temporary struts to keep them in correct position and plumb. After each course of masonry is built, the gap between masonry and frame shall be filled with 1:4 cement mortar. The hold fast shall be embedded in concrete mix C15/10. The temporary strut shall not be removed till masonry has set.
6. The fabrication of frames shall be of best workmanship. The joints shall be welded and ground properly without leaving any cavity. Intersection of Tee section for glazing shall be tenoned and gap shall be closed by hydraulic pressure.
7. Necessary holes required for fixing coupling sashes, glazing clips, etc. shall be provided.
8. All necessary MS holdfasts required for embedding shall be fixed to frame. Wherever steel frame is to be fixed to concrete members, necessary holes shall be made for fixing with screws.
9. In the case of steel windows, bottom hung, top hung and side hung shutters shall be provided with standardized steel hinges and/or side arms (which when shutter is closed are invisible).

open in any direction. The frame shall be provided with bronze spring catch.

11. The handles and peg stays shall be heavy duty and shall be brass oxidized.
12. Glass panes, unless otherwise specified shall be of 4mm thickness and shall be free from flaws, specks and bubbles. It shall have properly squared corners and straight edges, and shall be fixed to frame with glazing pins and approved putty.

1.2. Block Masonry Work

1. concrete for molding the blocks shall be machine mixed, dense and shall have proper workability so as permit removal of the moulds almost immediately after casting.
2. All blocks shall be machine molded. The shape and size shall be uniform according to the dimension and it shall not vary from the prescribed dimension by more than 3mm for length or 1.5mm for breadth and height. The blocks shall be properly cured before use.
3. The average compressive strength of 10 Nos. of precast concrete blocks shall be at least 5MPa (50kg/cm²) considering the whole base area of block for the calculation of the strength.
4. All mortar shall be prepared in accordance with relevant British standards and shall be machine mixed. Re-stamping of set mortar will not be permitted. The cement mortar proportion shall be as follows:
 - a) 10/ 15cm thick block work 1:4
 - b) 20cm thick block work 1:6
5. Well-dried blocks shall be laid dry and shall only be moistened to the extent required compensating the absorption of water from the mortar. Pieces of blocks shall not be used except where they are absolutely necessary to make a closure. Reinforced concrete bands shall be provided at 1.5m vertical intervals.
6. All unfinished work shall be raked back in courses, unless otherwise directed.
7. Masonry work shall not be raised by more than 8 single courses per day. The permissible tolerance in block work shall be as follows:
 - a. Deviation from position shown on plan of any block works more than one story in height 10 mm.
 - b. Deviation from vertical within a story 5mm per 3m height
 - c. Deviation from vertical in total height of building :10 mm

1.3. Flooring & Cladding

1.3.1. Ceramic Tile Flooring

1. Tiles shall conform to the relevant British standards. Tiles that are cracked, chipped or warped shall not be used for the works.
2. Preparation of surface: All masonry faces shall be cleaned thoroughly by removing dirt, loose mortar, efflorescence etc. The concrete surfaces shall be brushed to remove all laitance and roughened to provide a bond for the bedding.
3. Fixing tiles: The masonry and concrete faces shall be given a coat of cement plaster 12mm thick (in proportion 1:4). The surface of the plaster shall be scarified with wire brush for getting a good bond between the tiles and the bedding.

before using. The back of the tile shall be buttered with 1:2 plastic cement mortar to a thickness slightly in excess of the finished thickness required and the tile pressed to the wall and tapped back in position.

Alternatively a rich fatty mortar shall be applied on the bedding and the tile pressed into it, care being taken to ensure that the keys of the tile are buttered up with mortar. Joints shall be uniform, even, straight and as thin as possible in any case not more than 3.0 mm. After the surfaces of tiles have been fixed, the joints shall be cleaned of gray cement and refilled with cement paste of the same shade as that of the tiles. The tiled surface shall be left wet for a period of 7 days.

5. The Contractor shall provide the glazed rounded corner convex or concave, as necessary. After the completion of the work, the Contractor shall ensure that the surface is cleaned of all stains.

1.4. Painting

1. The Contractor shall apply the coverage of paint as per the manufacturer's data for the type of paint to be used and the coverage rate approved by the UN Project Manager. All materials shall be applied strictly in accordance with the manufacturer's recommendations. Any additions of thinner must be made under the supervision of the UN Project Manager, and as permitted by the manufacturer. Samples of all materials used for the painting work shall be approved by and deposited with the UN Project Manager.
2. The Contractor shall provide all the equipment required for the paint works, including scaffolding, access platforms, compressors, etc. Brushes, rollers, spray guns and the likes used for carrying out the work shall be kept clean and free from foreign matter, at all times.
3. Paint shall not be applied when the relative humidity is 80% or more for both internal, as well as external applications.
4. Paint shall be brought to the site in the sealed, labeled containers, stating:
 - a. Manufacturer's name
 - b. Date of manufacture
 - c. Type of paint
 - d. Color
 - e. Instructions for thinning, mixing and applying
5. Paint shall be stored in sealed containers, according to the manufacturer's recommendations. The paint shall not be subjected to extreme temperatures. Paint shall be used within its stated shelf life or within 18 months, whichever is less.

1.4.1 Steelwork Painting

1. All steelwork to be painted shall be first cleaned of rust, scale, loose paint, oil, and all deleterious matter before applying primer. The cleaning shall be carried out by approved means, using power driven tools, followed by steel wire brushing and dusting, wherever necessary.
2. Metal primer, for application to steel surfaces, shall either be zinc chromate or red oxide-based primer of an approved make.
3. Primer for application to galvanized surfaces shall be a suitable metal primer of approved make.
4. Priming of surfaces shall be carried out immediately after the preparation of surface. Second coat of primer shall be applied without exposing and as per manufacturer's recommendations.
5. One undercoat of oil paint, of approved color, shall be applied to the primed surface. Putty shall

be applied at the same time, wherever possible. All edges, angles and projections shall have a stripe undercoat applied as soon as the first coat is dry.

6. Priming and undercoats shall be lightly rubbed down with fine sandpaper before subsequent coats are applied.
7. Surfaces for painting must be dry and free from dust, dirt, rust, efflorescence or condensation.
8. The minimum dry film thickness of the paint coating, including rust protection should be 200 microns. At least two coats of primer and finish paint, each, must be applied.

2. Electrical condition and specification

2.1. Lighting system

This section includes lighting system for the building with lighting devices, switches and wires.

2.1.1 Devices:

1. LED exposed and hidden lights with 25W and 1950 Lumen, LED spotlights, Wall mounted integrated compact saving lamp, Fluorescent tube lamp with 120cm 36W 3350 Lumen and electronic ballast.
2. Distributed as shown in drawing.
3. All of Devices should be of good quality.

2.1.2 Switches:

1. Switches are mounted as shown in drawing.
2. They should mount at high of 120cm from finished floor level.
3. The switches should be of good quality.

2.2. General Installation procedure

Accessories:

Use manufacturer's brackets and accessories where these are available and suitable for the mounting substrate.

Protection:

Deliver fixtures to site protected from damage under site conditions by coatings, coverings and packaging. Remove only sufficient protection to permit installation.

Inspection:

The contractor shall check and review the drawings and visit the site and give sufficient notice so that inspection may be made of the following.

Submissions:

Samples

Submit nominated samples for approval of the Engineer.

If it is intended to incorporate samples into the works, submit proposals for approval. Only incorporate samples in the works which have been approved.

Do not incorporate other samples.

Keep endorsed samples in good condition on site, until practical completion.

Shop Drawings

If required, submit dimensioned drawings showing details of the fabrication and installation of

services and equipment, including relationship to building structure and other services, cable type and size, and marking details.

3. Mechanical Technical Condition and Specification.

3.1. Minimum Required Inclination to installing pipes:

1. Using the existing 4" pipe comes from existing manhole to connect and install the new pipes.
2. The contractor has to make sufficient inspection before installation the drainage system and check the slope and levels between the existing manholes or clean outlets and the level of floor drains and W.C pipes.
1. The contractor is responsible to check and fix the existing rain drain system on the roof, and insure the quality of existing floor drain.
2. he Waste Water Pipes have to be installed always under the Utility water System, and have to be covered by cement layer at minimum thickness of 2 cm around the pipe and below the F.F.L at minimum depth of 10cm.
3. Vent pipes shall be stayed to roof; if fixings for stays penetrate the roof covering, seal the penetrations and make watertight.

3.2. General Notes:

1. Provide all drainage pipes for the sanitary ware. These main waste pipes shall be 160 mm and 110 mm PVC. The contractor shall connect the sewerage lines to the existing sewer line.
2. If the slope in the area of works does not allow the contractor to bury the pipes, he shall fix the pipes on concrete bases or attach them properly to the walls. For each case of site, the contractor shall select the best way with full cooperation with Engineers.
3. All waste pipes from sanitary ware will have a water trap or siphon before it is connected to the main waste pipe. Provide cleaning eyes to each waste pipe for access to clear blockages.
4. Provide surface water drains to floor slab with water trap or siphon before connection to main waste pipe. Every floor drainage outlet shall be connected by 75 mm PVC pipe and fitted with stainless steel grill.

Test:

The Pipes have to be tested before covering with cement layer by hydrostatic pressure column pipe (4" - 1 m length) mounted on the floor drain and W.C Inlet, and close all other openings by special test equipment or equivalent to do such a test.

3.3. Sanitary wares

1. Good Quality
2. White color
3. Mixer taps are made of brass body and chrome finish, supplied with flexible hoses for hot and cold water.
4. Installed at a proper height and best fit places as manufacture instructions and recommendations.
5. Stainless steel hose connected to mixer tap in W.Cs.
6. Stainless steel floor drain cover.
7. Wash hand basins minimum dimensions 45x60cm, with chromium steel hot and cold taps;

vandal proof stoppers & S-trap and they should install them in the marble table 3 cm thickness the sizes are according to the attached drawing. W.C commodes with flushing cistern in each toilet & seat cover.

Test

- All Sanitary wares have to be tested before installation, and notice if any scratching or fracture lines appear.
- If any of previous noticed, the contractor must directly replace with new items without any proposed of their maintenance.
- The UN Project Manager shall approve all the sanitary ware.

3.4. General Installation procedure

Accessories

Use manufacturer's brackets and accessories where these are available and suitable for the mounting substrate.

If items are concealed, provide access doors of size required for easy access to the items. Provide access doors per specification.

Protection

Deliver fixtures to site protected from damage under site conditions by coatings, coverings and packaging. Remove only sufficient protection to permit installation.

Sleeves:

Where pipes pass through walls, floors and ceilings, sleeves of the same material as the service pipe shall be used. All sleeves shall project 2mm clear of the finished surfaces of walls and floors.

The Contractor shall be responsible for ensuring that the sleeves are in the correct position at the time they are built in.

flexible material to maintain the fire rating of the walls and floors.

Inspection:

The contractor shall check and review the drawings and visit the site and give sufficient notice so that inspection may be made of the following:

Submissions: Samples

Submit nominated samples for approval of the Engineer.

If it is intended to incorporate samples into the works, submit proposals for approval. Only incorporate samples in the works which have been approved.

Do not incorporate other samples.

Keep endorsed samples in good condition on site, until practical completion.

Shop Drawings

If required, submit dimensioned drawings showing details of the fabrication and installation of services and equipment, including relationship to building structure and other services, cable type and size, and marking detail.

Bill of Quantities
Architectural renovation for UNDP Entrance and Lobby

No.	Item	Description	Unit of Measure	Quantity
1	Architecture			
	1.1	demoulation of existing security room with relocating	lump sum	1
	1.2	backfilling work	m3	5.5
	1.3	Supply and install Concrete Block side along the garden (40x20 em)	m2	26
	1.4	plastering	m2	75
	1.5	supply and install Marbel for the stairs	m2	3.5
	1.6	Supply and install Bullet proof glass Windows	m2	1.96
	1.7	Supply and install Fixed Gypsum crown Molding for ceiling	L.M.	12
	1.8	Supply and install Fixed Gypsum False Ceiling, with metal support structure	m2	75
	1.9	Supply and install white marbel floor tiles (60x60 em) (Calacatta/ Carrara).	m2	50
	1.10	Supply and install Black marbel floor tiles (30x60 em).	m2	5
	1.11	Supply and install Base board marbel arround the edges.	L.M	32
	1.12	Painting Works for walls and ceiling including labors, materials and all required works	m2	210
	Subtotal			
2	Anti Blast Wall Plane Cover Sheet 4 mm			
	2.1	Supply and install steel frame according to the drawings	kg	975
	2.2.	Supply and install 4 mm steel sheets according to the drawings	m2	30
	2.3	Supplying and install 3 em plywood lumbers according to drawings	m2	6
	Subtotal			
3	Doors			
	3.1	Supply and insatll reinforced Steel door with two side of Oak wooden face, with steel frame according to the drawings, with all accessories (01)	NO.	1
	3.2	Supply and insatll reinforced Steel door with one side Oakwooden face, with steel frame according to the drawings, with all accerssories (02)	NO.	1
	3.3	Supplying and installing sliding Oak wooden door with all accessories (03)	NO.	1
	3.4	Supply and Install front steel door with all the required accessories according to the drawing (04)	KG	1400
	Subtotal			
4	Iron work			
	4.1	UN Logo made of Bronze	m2	1.21
	Subtotal			
5	Wall wooden and Marbel work			
	5.1	Oak wooden wall decoration according to the drawing	m2	25
	5.2	Dark marbel	m2	8
	Subtotal			
6	Furniture			
	6.1	Supplying and installing Oak wooden desk for receptionest with drawers 200X 80 em	lump sum	1
	6.2	Supplying and installing L shape laminted desck with drawers, and cabinets, according to the drwaing	lump sum	1
	6.3	Supply and install leather sofa accordingt to the drawing	each	1

	6.4	Supplying and installing desk Chair with arms	each	2
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UNDP Main Entrance - Estimated Bill of Quantity (Electrical)				
No.	Item	Description	Unit of Measure	Quantity
1 Lighting				
	1.1	Supply and install hidden LED light 25W with all required electrical installations and accessories including required switches	No	20
	1.2	Supply and install hidden spot LED light with all required electrical installations and accessories including required switches	No	20
	Subtotal			
2 Sockets				
	2.1	Supply and install Sockets with all required electrical installations and accessories including required switches	No	20
	Subtotal			
3 Telephone and Data				
	3.1	Supply and install Data socket with all required installations including cables, outlets covers.... etc.	No	6
	3.3	Supply and install Telephone Socket with all required installations including cables, outlets covers...etc.	No	6
	Subtotal			
4 Maintenance work for the existing CCTV system				
	4.1	Maintenece work for all existing cctv system, electrical, data, and telephone cable through the work time	Lump sum	1

UNDP Main Entrance- Estimated Bill of Quantity (Mechanical)				
No.	Item	Description	Unit of	Quantity
1 Ventilation				
	1.1	Full maintenance for the existing Ventilations system	No	1
	1.2	Full Maintenance for the existing AC.	each	2

BOQ-new Bath rooms in the main building
Bill of Quantity

Bill of quantity			
item	description	unit	Quantity
1-	Peeling off and excavation works of the existing ceramic, bathtub, washbasin, toilet and the heating radiator.	-	Lump sum
2- ceramic	Supply and install ceramic for walls, including labors, materials and all required works.	M2	38
3- painting	Painting Works for ceiling including labors, materials and all required works	M2	7
4- Doors	Supply and install wooden doors (203x62.5cm) with all required accessories and installations, including painting	-	2
5- Gypsum board	Supply and install Fixed gypsum board for wall with metal support structure.	M2	8
6- Windows	Supply and install fixed aluminum window (45x45cm), with all required accessories and installations.	-	2

7- Basins	Supply and install two Porcelain Wash Basin Integrated with Marble Top Up stand and all required installation and accessories	-	2
8- Toilets	Supply and install W.C Faucet with all required accessories	-	2
9-	Supply and install new slim heating radiators	-	2
10- ventilation	Supply and install Ventilation Industrial fan for Bathroom with all required electrical installation.	-	2
11- Water system	Supply and install Utility Water System (PEX tubing), outlets valves, fittings and all other accessories	-	Lump sum
12- Waste water system	Supply and install Waste Water System (PVC pipes) and all required accessories and installation	-	Lump sum
13- electricity& light	Supply and install all necessary electrical circulation and Wall mounted- ceiling mounted light.	-	Lump sum

Pool coverage- metal construction:

Bill of quantity					
item	description	dimension	thickness	length	weight
		Unit mm	Unit mm	Unit m	Unit kg
1	Supply and install supporting metal tube, (vertical and horizontal) and all the necessary accessories.	100x80	3	45	390
2	Supply and install supporting metal tube (horizontal) and all the necessary accessories.	100x40	3	18	114
		dimension	thickness	area	weight
		Unit m	Unit mm	Unit m2	Unit kg
3	Supply and install floor metal plate	6x3.4	4	20.5	656
4	Supply and install insulation	6x3.4	-	20.5	-
5	Stone floor tiles	6x3.4	3	20.5	-
		dimension	thickness	area	volume
		Unit m	Unit mm	Unit m2	Unit m3
6	Cement coat	6x3.4	25	20.5	0.5
7	Sand	6x3.4	100	20.5	2.05

Pool coverage- sand filled up:

Bill of quantity				
item	Description	Dimension	Thickness	Volume
		Unit m	Unit mm	Unit m3
1	Supplying and pouring sand inside the pool	6x3.4	1600	33
2	Supporting Reinforced concrete coat	6x3.4	10	2.04
3	Supply and pouring a surface sand coat	6x3.4	10	0.204
4	Supply and install stone floor tiles	6x3.4	3	20.5 M2

Section 3b: Related Services

Further to the Schedule of Requirements and Technical Specifications in the preceding Table, Bidders are requested to take note of the following additional requirements, conditions, and related services pertaining to the fulfillment of the requirements:

Delivery Term [INCOTERMS 2010]	<input checked="" type="checkbox"/> DAP
Exact Address of Delivery/Installation Location	Lot 1: UNOCHA Building, Damascus, Syria Lot 2: UNDP Building, Damascus, Syria
Mode of Transport Preferred	No Preferred Mode of Transport
UNDP Preferred Freight Forwarder, if any	Not Applicable
Distribution of shipping documents (<i>if using freight forwarder</i>)	Not Applicable
Delivery Date	Lot 1 – UNOCHA Building: Two (2) months from contract signature date. Lot 2 – UNDP Building: One month and a half (1.5 months) from contract signature date.
Customs, if needed, clearing shall be done by:	<input checked="" type="checkbox"/> Contractor in coordination with UNDP
Ex factory / Pre-shipment inspection	Not Applicable
Inspection upon delivery	Refer to Section 3a – Scope of Works
Installation Requirements	Refer to Section 3a – Scope of Works
Testing Requirements	Refer to Section 3a – Scope of Works
Scope of Training on Operation and Maintenance	Refer to Section 3a – Scope of Works
Commissioning	Refer to Section 3a – Scope of Works
Technical Support Requirements	Refer to Section 3a – Scope of Works
Payment Terms	<p>The payment currency is USD, and the payment will be made as follows for each lot:</p> <p>First Payment: (30%) of Contract's value to be released upon completion of 40% of the works, and submission of a detailed progress report (as per the work plan and upon validation from the supervising engineer);</p> <p>Second Payment: (30%) of Contract's value to be released upon completion of 70% of the works, and submission of a detailed progress report (as per the work plan and upon validation from the supervising engineer);</p> <p>Final Payment: (40%) of Contract's value to be released upon completion of 100% of the works. and submission of a detailed final report including photographs, mechanical & structural designs, and as built drawings (as per the work plan and upon validation from the supervising engineer).</p>

	<p>Within thirty (30) calendar days after the date of the satisfactory certificate of completion for the respective installation works and Testing and Acceptance issued by the UN assigned entity. Any of such payments does not constitute acceptance of the works nor does it constitute a transfer of risks and liability associated with the works/services provided.</p>
Conditions for Release of Payment	<input checked="" type="checkbox"/> Successful Completion of Requested Works <input checked="" type="checkbox"/> Testing <input checked="" type="checkbox"/> UNDP Acceptance
After-sale services required	<input checked="" type="checkbox"/> Defects liability (parts and labour) for a minimum period of 12 months from the date of commissioning, including any possible hidden defect. All main components shall also have an individual warranty of defects in materials and workmanship <input checked="" type="checkbox"/> Technical Support if needed
All documentations, including catalogs, instructions and operating manuals, shall be in this language	<input checked="" type="checkbox"/> English

Section 4: Bid Submission Form²

(This should be written in the Letterhead of the Bidder. Except for indicated fields, no changes may be made in this template.)

Insert: Location

Insert: Date

To: UNDP Syria Country Office Procurement Unit

Dear Sir/Madam:

We, the undersigned, hereby offer to supply the goods and related services required for the Provision of Civil Works to undertake the Construction and Renovations Works for Lot #..... [insert the lot(s) number] in accordance with your Invitation to Bid dated January 3, 2017. We are hereby submitting our Bid, which includes the Technical Bid and Price Schedule.

We hereby declare that:

- a) All the information and statements made in this Bid are true and we accept that any misrepresentation contained in it may lead to our disqualification;
- b) We are currently not on the removed or suspended vendor list of the UN or other such lists of other UN agencies, nor are we associated with, any company or individual appearing on the 1267/1989 list of the UN Security Council;
- c) We have no outstanding bankruptcy or pending litigation or any legal action that could impair our operation as a going concern; and
- d) We do not employ, nor anticipate employing, any person who is or was recently employed by the UN or UNDP.

We confirm that we have read, understood and hereby fully accept the Schedule of Requirements and Technical Specifications describing the duties and responsibilities required of us in this ITB, and the General Terms and Conditions of UNDP's Standard Contract for this ITB.

We agree to abide by this Bid for **120 days**.

We undertake, if our Bid is accepted, to initiate the supply of goods and provision of related services not later than the date indicated in the Data Sheet.

We fully understand and recognize that UNDP is not bound to accept this Bid, that we shall bear all costs associated with its preparation and submission, and that UNDP will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the evaluation.

We remain,

Yours sincerely,

Authorized Signature *[In full and initials]*: _____

Name and Title of Signatory: _____

Name of Firm: _____

Contact Details: _____

² No deletion or modification may be made in this form. Any such deletion or modification may lead to the rejection of the Bid.

[Please mark this letter with your corporate seal, if available]

Section 5: Documents Establishing the Eligibility and Qualifications of the Bidder

Bidder Information Form³

Date: *[insert date (as day, month and year) of Bid Submission]*

ITB No.: **UNDP-SYR-ITB-002-16**

Page _____ of _____ pages

1. Bidder's Legal Name <i>[insert Bidder's legal name]</i>		
2. In case of Joint Venture (JV), legal name of each party: <i>[insert legal name of each party in JV]</i>		
3. Actual or intended Country/ies of Registration/Operation: <i>[insert actual or intended Country of Registration]</i>		
4. Year of Registration in its Location: <i>[insert Bidder's year of registration]</i>		
5. Countries of Operation	6. No. of staff in each Country	7. Years of Operation in each Country
8. Legal Address/es in Country/ies of Registration/Operation: <i>[insert Bidder's legal address in country of registration]</i>		
9. Value and Description of Top three (3) Biggest Contract for the past five (5) years		
10. Latest Credit Rating (Score and Source, if any)		
11. Brief description of litigation history (disputes, arbitration, claims, etc.), indicating current status and outcomes, if already resolved.		
12. Bidder's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>		
13. Are you in the UNPD List 1267.1989 or UN Ineligibility List ? <input type="checkbox"/> YES or <input type="checkbox"/> NO		
14. Attached are copies of original documents of: <input type="checkbox"/> All eligibility document requirements listed in the Data Sheet <input type="checkbox"/> If Joint Venture/Consortium – copy of the Memorandum of Understanding/Agreement or Letter of Intent to form a JV/Consortium, or Registration of JV/Consortium, if registered <input type="checkbox"/> If case of Government corporation or Government-owned/controlled entity, documents establishing legal and financial autonomy and compliance with commercial law.		

³ The Bidder shall fill in this Form in accordance with the instructions. Apart from providing additional information, no alterations to its format shall be permitted and no substitutions shall be accepted.

Joint Venture Partner Information Form (if Registered)⁴

Date: *[insert date (as day, month and year) of Bid Submission]*

ITB No.: **UNDP-SYR-ITB-002-16**

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1. Bidder's Legal Name: <i>[insert Bidder's legal name]</i>		
2. JV's Party legal name: <i>[insert JV's Party legal name]</i>		
3. JV's Party Country of Registration: <i>[insert JV's Party country of registration]</i>		
4. Year of Registration: <i>[insert Party's year of registration]</i>		
5. Countries of Operation	6. No. of staff in each Country	7. Years of Operation in each Country
8. Legal Address/es in Country/ies of Registration/Operation: <i>[insert Party's legal address in country of registration]</i>		
9. Value and Description of Top three (3) Biggest Contract for the past five (5) years		
10. Latest Credit Rating (if any) : Click here to enter text.		
1. Brief description of litigation history (disputes, arbitration, claims, etc.), indicating current status and outcomes, if already resolved. Click here to enter text.		
13. JV's Party Authorized Representative Information Name: <i>[insert name of JV's Party authorized representative]</i> Address: <i>[insert address of JV's Party authorized representative]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers of JV's Party authorized representative]</i> Email Address: <i>[insert email address of JV's Party authorized representative]</i>		
14. Attached are copies of original documents of: <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> All eligibility document requirements listed in the Data Sheet <input type="checkbox"/> Articles of Incorporation or Registration of firm named in 2. <input type="checkbox"/> In case of government owned entity, documents establishing legal and financial autonomy and compliance with commercial law.		

⁴ The Bidder shall fill in this Form in accordance with the instructions. Apart from providing additional information, No alterations to its format shall be permitted and no substitutions shall be accepted.

Section 6: Technical Bid Form⁵

Provision of Civil Works to undertake the Construction and Renovations Works for UNOCHA Building (Lot 1) and for UNDP Building (Lot 2)

Reference: UNDP-SYR-ITB-002-16

Name of Bidding Organization / Firm:	
Country of Registration:	
Name of Contact Person for this Bid:	
Address:	
Phone / Fax:	
Email:	

SECTION 1: EXPERTISE OF FIRM/ ORGANISATION

This section should fully explain the Bidder's resources in terms of personnel and facilities necessary for the performance of this requirement.

1.1 Brief Description of Bidder as an Entity: Provide a brief description of the organization / firm submitting the Bid, its legal mandates/authorized business activities, the year and country of incorporation, and approximate annual budget, etc. Include reference to reputation, or any history of litigation and arbitration in which the organisation / firm has been involved that could adversely affect or impact the delivery of goods and/or performance of related services, indicating the status/result of such litigation/arbitration.

1.2. Financial Capacity: Based on the latest Audited Financial Statement (Income Statement and Balance Sheet) describe the financial capacity (liquidity, stand-by credit lines, etc.) of the bidder to engage into the contract. Include any indication of credit rating, industry rating, etc.

1.3. Track Record and Experiences: Provide the following information regarding corporate experience within at least the last five (5) years which are related or relevant to those required for this Contract.

Name of project	Client	Contract Value	Period of activity	Types of activities undertaken	Status or Date Completed	References Contact Details (Name, Phone, Email)

SECTION 2 - SCOPE OF SUPPLY, TECHNICAL SPECIFICATIONS, AND RELATED SERVICES

This section should demonstrate the Bidder's responsiveness to the specification by identifying the specific components proposed, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the specifications.

⁵ Technical Bids not submitted in this format may be rejected.

2.1. Scope of Supply: Please provide a detailed description of the goods to be supplied, indicating clearly how they comply with the technical specifications required by the ITB (see below table); describe how the organisation/firm will supply the goods and any related services, keeping in mind the appropriateness to local conditions and project environment.

Item No.	Description/ Specification of Goods	Source/ Manufacturer	Country of Origin	Qty	Quality Certificate/ Export Licences, etc. (indicate all that applies and if attached)

A supporting document with full details may be annexed to this section

2.2. Technical Quality Assurance Mechanisms: The bid shall also include details of the Bidder's internal technical and quality assurance review mechanisms, all the appropriate quality certificates, export licenses and other documents attesting to the superiority of the quality of the goods and technologies to be supplied.

2.3. Reporting and Monitoring: Please provide a brief description of the mechanisms proposed for this project for reporting to the UNDP and partners, including a reporting schedule.

2.4. Subcontracting: Explain whether any work would be subcontracted, to whom, how much percentage of the work, the rationale for such, and the roles of the proposed sub-contractors. Special attention should be given to providing a clear picture of the role of each entity and how everyone will function as a team.

2.5. Risks / Mitigation Measures: Please describe the potential risks for the implementation of this project that may impact achievement and timely completion of expected results as well as their quality. Describe measures that will be put in place to mitigate these risks.

2.6 Implementation Timelines: The Bidder shall submit a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.

2.7. Partnerships (Optional): Explain any partnerships with local, international or other organizations that are planned for the implementation of the project. Special attention should be given to providing a clear picture of the role of each entity and how everyone will function as a team. Letters of commitment from partners and an indication of whether some or all have successfully worked together on other previous projects is encouraged.

2.8. Anti-Corruption Strategy (Optional): Define the anti-corruption strategy that will be applied in this project to prevent the misuse of funds. Describe the financial controls that will be put in place.

2.9 Statement of Full Disclosure: This is intended to disclose any potential conflict in accordance with the definition of "conflict" under Section 4 of this document, if any.

2.10 Other: Any other comments or information regarding the bid and its implementation.

SECTION 3: PERSONNEL

3.1 Management Structure: Describe the overall management approach toward planning and implementing the contract. Include an organization chart for the management of the contract, if awarded.

3.2 Staff Time Allocation: Provide a spreadsheet will be included to show the activities of each personnel involved in the implementation of the contract. Where the expertise of the personnel is critical to the success of the contract, UNDP will not allow substitution of personnel whose qualifications had been reviewed and accepted during the bid evaluation. (If substitution of such a personnel is unavoidable, substitution or replacement will be subject to the approval of UNDP. No increase in costs will be considered as a result of any substitution).

3.3 Qualifications of Key Personnel. Provide the CVs for key personnel (Team Leader, Managerial and general staff) that will be provided to support the implementation of this project. CVs should demonstrate qualifications in area of expertise relevant to the Contract. Please use the format below:

Name:		
Role in Contract Implementation:		
Nationality:		
Contact information:		
Countries of Relevant Work Experience:		
Language Skills:		
Education and other Qualifications:		
Summary of Experience: <i>Highlight experience in the region and on similar projects.</i>		
Relevant Experience (From most recent):		
Period: From – To	Name of activity/ Project/ funding organisation, if applicable:	Job Title and Activities undertaken/Description of actual role performed:
<i>e.g. June 2010-January 2011</i>		
<i>Etc.</i>		
<i>Etc.</i>		
References (minimum of 3):	<i>Name</i> <i>Designation</i> <i>Organization</i> <i>Contact Information – Address; Phone; Email; etc.</i>	
Declaration:		
I confirm my intention to serve in the stated position and present availability to serve for the term of the proposed contract. I also understand that any wilful misstatement described above may lead to my disqualification, before or during my engagement.		
_____ Signature of the Nominated Team Leader/Member		_____ Date Signed

Section 7: Price Schedule Form⁶

The Bidder is required to prepare the Price Schedule as indicated in the Instruction to Bidders for each lot.

LOT 1:

Construction and Renovations Works for UNOCHA Building:

Estimated Bill of Quantity (CIVIL & ARCHITECTURAL)

No	Item	Description	Unit	Quantity	Unit Price	Total Price	Delivery
1	Architecture						
	1.1	Demolition and excavation existing bathrooms and kitchen and the corridor attic as shown in as built plan (sections 1,2)	L.S	1			
	1.2	Supply and install floors ceramic tiles for the new bathroom	m ²	10			
	1.3	Supply and install walls ceramic tiles (Graneett) for the new bathroom	m ²	40			
	1.4	Supply and install Ceramic floor tiles (Graneett) (60x60 cm) for meeting room.	m ²	58			
	1.5	Supply and install Ceramic skirtings for meeting room with all required works.	m	45			
	1.6	Painting Works for walls and ceiling including labors, materials and all required works	m ²	520			
	1.7	External Rendering using white cement including insulation with all required works.	m ²	240			
	1.8	Supply and install Fixed Gypsum False Ceiling, with metal support structure for meeting room and bathrooms with all required works.	m ²	63			
	1.9	Supply and install hollow bricks 10 cm according to the drawing all related works (plastering ,...)	m ²	50			
	1.10	Supply and install new steel cantilever overhead for the path area in the garden with all related works as per the submitted shop drawings.	L.S	1			
	1.11	Supply and install tiles matching the existing one for repairing work with all required works.	L.S	1			
2	Windows and Doors						
	2.1	Supply and install Double Glazed Aluminium Windows with all related works (marble frame,...) and required accessories	m ²	24			
	2.2	Supply and install Steel bars 20 mm for Frame captures according to drawings with all related works and required accessories.	m	30			
	2.3	Supply and install 200 micron SRF protection film for windows and doors glass	m ²	35			
	2.4	Supply and install wooden doors according to drawing with all required works and accessories including painting.	No	5			
	2.5	Supply and install steel doors according to drawing with all required works and accessories including painting.	No	5			
	2.6	supply and install steel frame protection for window 6 according to drawing with all related works and accessories including painting.	kg	465			
	2.7	Supply and install steel metal sheet [thick = 4 mm] to cover the opening in the Office-4 and main existing stairs	L.S	1			
3	Fence						
	3.1	Demolition the old craced bricks from the garden wall	L.S	1			
	3.2	Supply and install bricks side along the garden (40x20 cm) height 85 cm with all related works including plastering.	m ²	25			

⁶ No deletion or modification may be made in this form. Any such deletion or modification may lead to the rejection of the Bid.

	3.3	Supply and install out side paint with all related works.	L.S	1			
	3.4	Supply and install razor barbed fence (dia 50 cm), 8 loops per meter	m	28			
4	Anti Blast Sand Wall						
	4.1	Excavation works for wall foundation with all related works.	m3	2			
	4.2	Reinforced concrete for foundation with all related works.	m3	2			
	4.3	Supply and install steel frame according to the drawings with all related works and accessories including painting.	kg	3100			

Estimated Bill of Quantity (CIVIL & ARCHITECTURAL)

No	Item	Description	Unit	Quantity	Unit Price	Total Price	Delivery
	4.4	Supply and install 2 mm steel sheets according to the drawings with all related works and accessories including painting.	m2	70			
	4.5	Supplying and pouring sand bags according to the drawings with all related works.	m3	22			
	4.6	Supply and install Base Plates as technical specifications and drawings with all related works and accessories including painting.	No	32			
	4.7	Supply and install razor barbed fence (dia 50 cm), 8 loops per meter including rectifying the existing fence (painting , reinforcing ,...)	L.S	1			

Estimated Bill of Quantity (MECHANICAL)

No	Item	Description	Unit	Quantity	Unit Price	Total Price	Delivery
1	AIR CONDITIONING						
	1.1	Supply and install Air Conditioner 9000 BTU/h, and all required electrical installation, fittings and copper pipes....etc	No	2			
	1.2	Supply and install Air Conditioner 12000 BTU/h, and all required electrical installation, fittings and copper pipes....etc	No	4			
	1.3	Supply and install Air Conditioner 18000 BTU/h, and all required electrical installation, fittings and copper pipes....etc	No	1			
	1.4	Supply and install Air Conditioner 24000 BTU/h, and all required electrical installation, fittings and copper pipes....etc	No	1			
2	VENTILATION						
	2.1	Supply and install Ventilation exhaust fan for W.C, Server [EXF-1] with all required electrical installation , including pipe 110 mm diameter	No	4			
	2.2	Supply and install Ventilation exhaust fan for kitchen [EXF-2] with all required electrical installation	No	1			
	2.3	Supply and install Ventilation exhaust fan for SAFE ROOM [CEF] with all required electrical installation and mounting, including ducts, and exhaust diffuser as drawings	No	1			
3	BATHROOM						
	3.1	Supply and install Utility Water System (PPR pipes), including isolating valves, fittings and all other accessories for both cold and hot water [hot water to be thermally insulated]	Lump sum	1			
	3.2	Supply and install Waste Water System (PVC pipes) and all required accessories and installation	Lump sum	1			
	3.3	Supply and install Instant Water Heater [18 kW - 3PH] and all required Electrical and plumbing installation and accessories	No	1			
	3.4	Supply and install W.Cs and all required installation and accessories	No	2			

	3.5	Supply and install two Porcilen Wash Basin Integrated with Marble top Upstand and all required installation and accessories	No	2			
	3.6	Supply and install Wash Basin Mixture tap with all required accessories	No	2			
	3.7	Supply and install W.C Mixture tap with all required accessories including toilet hose	No	2			

Estimated Bill of Quantity (ELECTRICAL)

No	Item	Description	Unit	Quantity	Unit Price	Total Price	Delivery
1	Distribution boards						
	1.1	Supply and install Main board Distribution Panel including all required installations and components such as circuit breakers, earth bar connection, cover box..etc.	No	1			
	1.2	Supply and install Mono-phase Regulator (100A) with all required electrical installations, cables and other accessories	No	3			
2	Lighting						
	2.1	Supply and install Recessed LED light (Square) 28 W with all required electrical installations and accessories including required switches	No	14			
	2.2	Supply and install Recessed LED light (Square) 6 W with all required electrical installations and accessories including required switches	No	6			
	2.3	Supply and install Exposed LED light (Circular) 28 W with all required electrical installations and accessories including required switches	No	7			
	2.4	Supply and install Exterior Flood light 50 W light with all required electrical installations and accessories including required switches	No	7			
	2.5	Supply and install fluorescent light including 3X120 Cm fluorescent lamps with reflector with all required electrical installations and accessories including required switches	No	8			
	2.6	Supply and install Water-Proof light 1 fluorescent X40 W with all required electrical installations and accessories including required switches	No	3			
	2.7	Supply and install Emergency light with all required electrical installations and accessories including required switches	No	8			
	2.8	Supply and install Illuminated Exist Sign with all required electrical installations and accessories including required switches	No	2			
3	Sockets						
	3.1	Supply and install single Schuko Sockets with all required electrical installations and accessories	No	27			
	3.2	Supply and install double Schuko Sockets with all required electrical installations and accessories	No	2			
	3.3	Supply and install single weather proof Schuko Sockets with all required electrical installations and accessories	No	9			
	3.4	Supply and install double weather proof Schuko Sockets with all required electrical installations and accessories	No	1			
	3.5	Supply and install floor box Hub contains 4 x single schuko sockets and 4 x RJ45 data sockets with all required electrical installations and accessories	No	1			
4	Fire Alarm System						
	4.1	Supply and install Battery smoke detector (with strobe light and sounder) with all required electrical installations and accessories	No	12			
	4.2	Supply and install Battery Heat detector (with strobe light and sounder) with all required electrical installations and accessories	No	1			

	4.3	Supply and install CO2 Fire Extiguisher, 6 Kg with all required installations	No	1			
	4.4	Supply and install Powder Fire Extiguisher ABC, 6 Kg with all required installations	No	1			
5	CCTV System						
	5.1	Supply and install Colored Indoor IP camera ceiling Dome Type with all required electrical and fixing installations	No	2			

Estimated Bill of Quantity (ELECTRICAL)

No	Item	Description	Unit	Quantity	Unit Price	Total Price	Delivery
	5.2	Supply and install Colored Outdoor IP camera with all required electrical and fixing installations	No	6			
6	Data & Telephone						
	6.1	Supply and install Data socket with all required installations including cables, outlets covers....etc.	No	42			
	6.2	Supply and instal Network cabinet minimum 16-20 Unit to best is the bigger based on availability in the market installations and components with all required accessories and including the follwoings: - All cables to be terminated to patch panel on the network cabinet. - Each patch panel to be separated by cable organizer from the other patch panel. - Standard Numbering to be conducted on the outlet and the patch panel in the network cabinet. - Network switch to support minimum 15 POE device with 15.4 watt each with 48 port or preferable 2X 24 port switchces.	No	1			
	6.2.1	Supply and install Patch cord 0.5 m to connect the patch panels to the net work switch.	No	50			
	6.2.2	Supply and install 1 UPS rack mounted minimum 1500-2000 VA.	No	1			
7	T.V						
	7.1	Supply and install Digital Sattelite T.V system to meeting room including: - Central Satellite Dish - HD Receiver - Coaxial cables - Cover plates, back boxes, labelling and/or engraving, cable entries, cable terminations or the like	Lump sum	1			
	7.2	Supply and install LED display 70 inch with all required accessories, finxing and mounting including cabling	No	1			
	7.3	Supply and install ceiling mounting projector with all required accessories, finxing and mounting including cabling	No	1			
	7.4	Supply and install motorized screen projector 2.5x2.5 m with all required accessories, finxing and mounting	No	1			
8	Access Point						
	8.1	Supply and install Access Point with all required electrical installations and accessories "Access point and switches to be consulted with ICT for approval of trade mark and model"	No	4			
9	Cables						
	9.1	Supply and install (4x16)+16 mm ² NYY cable with all required electrical installations and accessories	m	60			
	9.2	Supply and install 5x4 mm ² NYA cables with all required electrical installations and accessories	m	10			
	9.3	Supply and install 3x4 mm ² NYA cables with all required electrical installations and accessories	m	150			
	9.4	Supply and install 3x2.5 mm ² NYA cables with all required electrical installations and accessories	m	400			
	9.5	Supply and install 2x2.5 mm ² NYA cables with all required electrical installations and accessories	m	240			
	9.6	Supply and install Cat 6-a UTP cables with all required electrical installations and accessories	m	1100			
	9.7	Supply and install Cat 6-a Shielded cables with all required electrical installations and accessories	m	50			
	9.8	Supply and install Telephone Cable [20 pairs] with all required electrical installations and accessories	m	150			
10	Earthing System						

No	Item	Description	Unit	Quantity	Unit Price	Total Price	Delivery
	10.1	Supply and install Earthing system [2 earthing manhole, each has 50 mmx2m copper rod] as described in the Electrical Technical specification and in accordance to the drawings	Lump sum	1			
11	Other						
	11.1	Supply and install change over to the Emergency Power Supply System [Diesel Generator] in accordance to the Existing ATS to ensure electricity feedback from one source to the building	Lump sum	1			
Total of Lot . 1							

LOT 2:

Construction and Renovations Works for UNDP- New Apartment- 1st floor :

Bill of Quantities

	First Floor - Estimated Bill of Quantity (Civil)						
Item		Description	Unit	Quantity			
Security measures& mitigation		The main apartment wooden door (D1 see index 1) with the dimension of approx. (203cmx112cm) should reinforced with 6mm metal plate from inside, should be provided with metal bar lock too to adequate with the attached technical specifications. (See annex 1A).	No	1			
		The side main apartment wooden door (D2 see index 1) with the dimension of approx. (203cmx88cm) should reinforced with 6mm metal plate from inside, should be provided with metal bar lock too and should be provided with an exterior metal burglar protection. (See annex 1B and annex 14).	No	1			
		Remove the glass panels and replace with 6 mm wooden structure for the doors (D4-D5-D6-D7-D8-D9-D10-D11-D12) including any necessary repairs, including painting according to the plan drawing, and index 1-(for D3 annex 10)	No	9			
		Remove the glass panels and replace with 6 mm wooden structure for doors(D3), and supply two wooden panel of 6mm thickness to the upper part of the door, including any necessary repairs, including painting according to the plan drawing, and index 1 and annex 10)	No	1			
		Supply and install additional two wooden doors (D17& D18), similar shape to the current doors, with all required accessories and installations, including painting (according to the plan drawing, and index 2).	No	2			
		Supply and install additional metal door (D21 two parts, 97x 200 and 40x200cm) with all necessary accessories (according to index 2 and annex 12).	No	1			
		To maintain of the two attics doors with all required accessories including painting according to the plan drawing, and index 1	No	2			
		All locks of the apartment`s doors should be checked.	No	Lump sum			
		Supply and install single shelter resistance film (SRF) (200 microns inside only) for aluminum windows and doors glass (W2-W5-W6-W7-W8-W9-W11-W12-W14) according to the plan drawing and index 4	m²	19			
		Supply and install double shelter resistance film (SRF)Vice-versa (200 microns inside and outside) for the front windows and doors glass that facing the street (W1-W3-W4-W10) according to the plan drawing and index 4	m²	27			
		All aluminum sliding doors (W3- W4- W7), according to the plan drawing and index 4) should be provided with frame catcher with all necessary accessories, these aluminum doors will be equipped with steel capture according to annex 3.	No	3			
		All aluminum sliding windows (W2-W6-W8-W9-W10), according to the plan drawing and index 4) should be provided with frame catcher with all necessary accessories, these windows will be equipped with steel catcher. According to annex 2.	No	5			
		The aluminum sliding windows (W1), according to the plan drawing and index 4) should be provided with frame catcher with all necessary accessories, this window will be equipped	No	1			


	with steel catcher. According to annex 6.					
	Install one exterior metal box to (W10, see the plan drawing and index	No	1			
	The aluminum sliding door (W7) according to the plan drawing and index3) should be provided with exterior metal burglar protections with all necessary accessories, according to (annex 11).	No	1			
	All aluminum sliding windows (W2-W6-W8-W9) according to the plan drawing and index3) should be provided with exterior metal burglar protections with all necessary accessories, according to (annex 11).	NO	4			
	The aluminum sliding door (W11-W14) according to the plan drawing and index3) should be provided with exterior metal burglar protections with all necessary accessories, according to (annex 14).	No	2			
	The aluminum door (W12) according to the plan drawing and index3) should be provided with exterior sliding metal burglar protections with all necessary accessories, according to (annex4).	No	1			
	Supply and install aluminum window (W9) approx. (100x150cm, according to the plan drawing and index 4).	No	1			
	Maintenance for all aluminum windows.	No	14			
1-4 Safe heaven room	3-1 The wooden door (D14 see index 1) with the dimension of approx. (180cmx51cm) should reinforced with 6mm metal plate from inside the heaven room. The door should be provided with metal bar lock too. (See annex 8 and annex 11).		1			
	3-2 Supply and install additional sliding reinforced door (D20), in front of (D7) outside the safe heaven room. The door should be provided with metal bar lock too. (See annex 9).		1			
	3-3 Supply and install additional sliding reinforced window (D22) in front of (W5) inside the safe heaven room. The door should be provided with metal bar lock too. (See annex 13).		1			
	3-4 The aluminum sliding window (W5) according to the plan drawing and index3) should be provided with exterior metal burglar protections with all necessary accessories, according to (annex 14).		1			
1-4 Metal emergency staircase	Supply and install additional metal emergency staircase lead from the edge of window (D5) to the back yard in the ground floor. 4-1 The supporting metal tube structure (4x4x0.3cm), including labors, materials and all required works, according the plan drawings. approx. 4-2 Supply and install supporting metal tube structure/L shape/ (4x4x0.3cm), supporting the staircase body, including labors, materials and all required works, according the drawings, approx. weight (100kg). 4-3 The metal plates (3mm) as stairs (dimension: 90x20cm) including labors, materials and all required works, according the drawings. 4-4 The rail tube (3x3x0.2), including labors, materials and all required works, according the plan drawings. (See the plan).	Kg	460			

Metal staircase Index 5								
Metal tube								
Item	Description	Dimensions	Thickness	Length	Weight	Unit	Total	Delivery

		mm	mm	M	Kg	Price		
8-1	Supply and install supporting metal tube structure/L shape/, including labors, materials and all required works, according the drawings	40x40	3m.m	57	100			
8-2	Supply and install supporting metal tube structure, including labors, materials and all required works, according the drawings	40x40	3m.m	63	220			
Metal plates								
8-3	Supply and install metal plates as stairs, including labors, materials and all required works, according the drawings		3m.m	10m2	240			
8-4	Supply and install metal plates, as double layers for walls and ceiling of the staircase body including labors, materials and all required works, according the drawings		6m.m	72m2	6912			
Ceiling extension		Area	Unit					
8-5	Supply and install additional part steel & cement as an extension ceiling to the ground floor next to the metal staircase with a thickness of 20 cm according to the plan drawing and section drawing.	4.5	m²					
8-5	Painting							
8-5-1	Painting Works for walls, ceiling, and the supporting tubes, including labors, materials and all required works, oil paint (semi-gloss) for all flat walls, ceiling and supporting tubes, two painting coats (interior& exterior).	150m2						
8-6	Stairs dressing							

8-6-1	Supply and install the stairs dressing with marble slabs (thickness of 20mm) including labors, materials and all required works, according to the drawings	18m ²	-	-	-			
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Index 6						
Fire alarm system						
Symbol	Item	Description	Quantity	Unit Price	Total	Delivery
		The fire alarm system will contain detector units in each and every room and closed space in the apartment (see annex 16) and they are as follows:				
H	Heat detector	In main kitchen space	1			
S	Smoke detector	In all spaces (according to annex 16)	6			
M	Manual alarm button	As shown in the main first floor (annex 16)	2			
☒	Siren with flashes	Located inside the first floor as described and shown in the first floor plan.	1			
☒	Siren with flashes	Located in the security guards control room in the ground floor plan.				
	CCTV system					
◁IC	Indoor cameras	The places as described and shown in the main floor plan (annex 16). All technical specifications of the cameras will be detailed in the IT sheet of requirements.	7			
◁OC	Outdoor	The places as	6			

	cameras	described and shown in the main floor plan (annex 16). All technical specifications of the cameras will be detailed in the IT sheet of requirements.				
Outdoor Projectors led light						
	Outdoor projectors led light (50 w) should be provide and located as described and shown in the main floor plan and annex 16). All projectors light will be connected and controlled by the convenient switch breakers that will be supplied and installed in the security guards control room in the ground floor.	7				

Civil work							
Item	Title	Description	Unit	Quantity	Unit Price	Total	Delivery
Architecture	1-1 Painting	Painting Works for walls and ceiling including labors, materials and all required works, oil paint (semi-gloss) for all flat walls two coats including touch up by putty with all work needed, especial treatment for the damaged spots in the walls	m ²	400			
		Painting works for roller shutter including labors, materials and all required works.	No	9			
	1-2 Additional gypsum board walls in kitchen and salon	Supply and install Fixed gypsum board for wall with metal support structure according to the plan drawing	m ²	85			
		Supply and install additional convenient ceramic skirt fixed to the new gypsum wall (two sides) in the kitchen	M	11			
		Supply and install additional convenient marble skirt fixed to the new gypsum wall (two sides) in salon	M	28			

	3- remove the glass within the balcony`s railings.		No	Lump sum			
	4- Install two metal plate layers of 6mm thickness to the three ceiling openings. (According to the plan and Annex 7).		m²	4.5			
	5- kitchen	4-1 Supply and install Fixed gypsum board as a wall with metal support structure to close the slot of door (D16) according to the plan drawing	m²	1.5			
		4-2 Peeling off and modifying the existing kitchen basin and the kitchen closet, according to the plan drawing.	No	Lump sum			
		4-3 Peeling off and excavation works of the existing concrete edge under the kitchen window (D9) (see the current plan drawing).	m 3	0.5			
		4-4 Check and repair the existing drainage system on the apartment/ when necessary/.	-	Lump sum			
		Supply and install water system (PEX tubing) outlets valve fitting, in kitchen with all necessary accessories.	-	Lump sum			
		4-5 Supply and install waste	-	Lump sum			
	5 Light device	5-1 supply and install circle ceiling Lighting device in every indoor space and staircase, 220V 2x26W installed in ceiling-Flash Power Save lamp with all accessories.	Piece	17			
	6 Air conditioning	6-1 Supply and install two A.C. split system unit (1800 BTU) in saloon.		2			
		6-2 Cleaning the indoor and the outdoor units of the central air conditioning system.		Lump sum			
		6-3 Cleaning the indoor and the outdoor units of the air conditioner split unit.		1			
	7 ventilation	7-1 Supply and install Ventilation Industrial fan for safe heaven room with all required electrical installation.		1			
		7-2 Supply and install Ventilation Industrial fan for kitchen and two bathrooms with all required electrical installation.		3			

Index 7- Electrical Sow					
Total Price	Unit Price	Qty.	Description	Item	No.
		1	<ul style="list-style-type: none"> - Capacity not less than 36 MCB circuit breakers. - Eaton/ Moeller, Legrand, Hager or equivalent... - Wall mounted / indoor. - Transparent impermeable cover. - Place for labeling each breaker. - Layout as per attached drawing. -Installed below the existing Main Distribution Board. 	Main Distribution Board	1
		3	<ul style="list-style-type: none"> -Phase Indication Light. -To be installed in the new Main Distribution Board. 	Phase Indication Lights	2
		1	<ul style="list-style-type: none"> - Eaton/Moeller, Legrand, Hager or equivalent... - MCCB 60-63A – Three Pole. -To be installed next to the 3-Phase Energy Meter. 	Circuit Breaker	3
		3	<ul style="list-style-type: none"> - Eaton/Moeller, Legrand, Hager or equivalent... - MCB 60-63A – 2-Pole. -To be installed in the new Main Distribution Board. 	Circuit Breaker	4
		3	<ul style="list-style-type: none"> - Eaton/Moeller, Legrand, Hager or equivalent... - 60-63A – 2-Pole. 30 mA Trip Current. -To be installed in the new Main Distribution Board. 	RCD	5
		11	<ul style="list-style-type: none"> - Eaton/Moeller, Legrand, Hager or equivalent... - MCB 20A - SP - To be installed in the new Main Distribution Board. 	Circuit Breaker	5
		25	<ul style="list-style-type: none"> - Eaton/Moeller, Legrand, Hager or equivalent... - MCB 25A - SP 	Circuit Breaker	6

			- To be installed in the Main Distribution Board.		
		3	-15 KVA single phase Automatic Voltage Regulator (220 VAC – 50 Hz). -Al-Hadara or equivalent. -LCD display (Voltage, Current, etc.). -OFF/By-pass Switch. -Installation place to be determined during site survey. -To be installed between the 3 Phase MCCB 60-63A and the 2-pole 60-63A MCB's.	Automatic Voltage Regulator	7
		68	-Preferable EU origin. -Wall mounted. -Grounding clips. -To be installed as per the apartment layout drawing.	Wall sockets Schuko	8
		To be determined by contractor upon site survey in agreement with UNDP	-Hosh Blas NYY Cables: -3x2.5 mm2, 3x4mm2, 3x16mm2.etc... -To be connected between every 25A circuit breaker installed in the main distribution board and every 4 x Schuko sockets as per the attached layout. -To be connected between every 20A circuit breaker installed in the main distribution board and every AC, IT cabinet and Fire System locations as per the attached layout.	Power cables	9
		To be determined by contractor upon site survey in agreement with UNDP	-Sizes to be determined by the contractor to fit all power cables, IT and phone cables connected to every room as per the attached layout.	PVC Conduits	10
		1	-Old and new Main Distribution Boards to be connected also to the ATS output of the Genset.	Genset connection	11
		To be	-Existing Ground for the apartment below	Grounding net	12

		determined by contractor upon site survey in agreement with UNDP	shall be tested by the contractor. In case the resistance measured lies between 0.5 Ohm and 5 Ohm the ground of the new apartment can be connected to the existing one. Otherwise a new grounding net has to be established.		
		2	-Shall be from a well-known manufacturer. -Cold and Hot Air Conditioning. -18000 BTU / 1.5 Ton. -Silent Operation.	Air Conditioners (Split-Units)	13

Index8- IT works

Total Price	Unit Price	Qty	Description	Item	
		1	-24U -Preferable EU origin made -Has a transparent impermeable cover with lock and key -Equipped with fan and two multi socket power -Shelf included	Communication Cabinet	1
		2	-Brand 3M -RJ45 48 ports cat 6 -To be installed in the communication cabinet	Patch Panel	2
		2	-Brand : Cisco 24 ports switch -24 10/100 Ethernet ports -2 10/100/1000 Ethernet ports -2 POE ports -To be installed inside the communication cabinet	Network switch	3
		100	-Brand: 3M -1m length - cat 6	Patch cord cables	5
		27	-Brand: 3M -Includes one RJ45 jack and one RJ11 jack -Includes two labeling area -The RJ45 and RJ11 jacks should be frontal (not facing the ceiling or the ground)	Voice& Data wall outlet	6

			-To be installed as per the drawing		
		12	-Brand: 3M -Includes one RJ45 jack - The RJ45 jack should be frontal (not facing the ceiling or the ground) -To be installed as per the drawing	Data wall outlet	7
		To be determined by contractor upon site survey	-Cat 6 STP -To be connected and terminated to the patch panel from one side and to data outlets from the other side as per the drawing	Data cables	8
		To be determined by contractor upon site survey	-Brand: 3M -Cat 6 STP (Cable for each outlet) -To be connected and terminated to the voice patch panel from one side and to voice outlets from the other side as per the drawing	Phone cables	9
		To be determined by contractor upon site survey	-Made of good plastic quality -Sizes to be determined by the contractor to fit all data & phone cables extended to every data/voice outlet as per the drawing	Conduits	10
		2	-Cat 6 SFTP to be extended between both 2 nd floor communication cabinet and 1 st floor 's cabinet	Ethernet Cable	11
		1 cable with approximately 80m length	- 32 or 48 Pair cable to be connected between both communication cabinet 's voice patch panel and 1 st floor 's voice patch panel	Voice cable	12
		2	-Brand: Cisco -2.4 GHz -Type: indoor -POE -802.11 bgn -Features: DHCP,MAC filtering,WPA,WPA2,WEP -Multiple SSID -Support Vlan -Operational modes: AP, WDS, Wireless bridge -Preferable US brand	Wireless Access point	13

			-To be installed as per the drawing		
		1	-Type: Online -Form factor: Rack mounted -Preferable US or EU origin -To be installed in the communications cabinet	1 KVA UPS	14
		Please refer to security Section for the quantity and location	-Fixed dome -Color -Lenses: 6 mm -Resolution: 700 TVL - 25fps -No audio -Motion detection -IR: range 45ft ,work in total darkness -Day/night vision: Auto switch between night and day mode -Connectivity: BNC -Motion detection support	Indoor camera	15
		Please refer to security Section for the quantity and location	Outdoor with wall/ceiling mount kit -Color -Lenses: 2.6-12 mm -Weather Proof - Resolution: 700 TVL - 25 fps - No audio - Motion detection - IR: range 45ft ,work in total darkness - Day/night vision: Auto switch between night and day mode - Connectivity :BNC - Motion detection support	Outdoor camera	16
		To be determined by contractor upon site survey	-Combined Data & power -To be extended between 1st floor 's DVR and outdoor/indoor cameras	Camera Power and data cables	17
		1	-Capacity should be sufficient to support 15 cameras -To be installed in 1 st floor cabinet	Power Unit	18

Architectural renovation for UNDP Entrance and Lobby

Architecture				
Total Price	Unit Price	Description	UNIT	QTY
		demoulation of existing security room with relocating	lump sum	1
		backfilling work	m3	5.5
		Supply and install Concrete Block side along the garden (40x20 em)	m2	26
		plastering	m2	75
		supply and install Marbel for the stairs	m2	3.5
		Supply and install Bullet proof glass Windows	m2	1.96
		Supply and install Fixed Gypsum crown Molding for ceiling	L.M.	12
		Supply and install Fixed Gypsum False Ceiling, with metal support structure	m2	75
		Supply and install white marbel floor tiles (60x60 em) (Calacatta/ Carrara).	m2	50
		Supply and install Black marbel floor tiles (30x60 em).	m2	5
		Supply and install Base board marbel around the edges.	L.M	32
		Painting Works for walls and ceiling including labors, materials and all required works	m2	210
Subtotal				
Anti Blast Wall Plane Cover Sheet 4 mm				
		Supply and install steel frame according to the drawings	kg	975
		Supply and install 4 mm steel sheets according to the drawings	m2	30
		Supplying and install 3 em plywood lumbers according to drawings	m2	6
Subtotal				
Doors				
		Supply and insatlI reinforced Steel door with two side of Oak wooden face, with steel frame according to the drawings, with all accessories (01)	NO.	1
		Supply and insatlI reinforced Steel door with one side Oakwooden face, with steel frame according to the drawings, with all accerssories (02)	NO.	1
		Supplying and installing sliding Oak wooden door with all accessories (03)	NO.	1
		Supply and Install front steel door with all the required accessories according to the drawing (04)	KG	1400
Subtotal				
Iron work				
		UN Logo made of Bronze	m2	1.21
Subtotal				
Wall wooden and Marbel work				
		Oak wooden wall decoration according to the drawing	m2	25
		Dark marbel	m2	8
Subtotal				
Furniture				
		Supplying and installing Oak wooden desk for receptionest with drawers 200X 80 em	lump sum	1
		Supplying and installing L shape laminted desck with drawers, and cabinets, according to the drwaing	lump sum	1
		Supply and install leather sofa accordingt to the drawing	each	1
		Supplying and installing desk Chair with arms	each	2

UNDP Main Entrance - Estimated Bill of Quantity (Electrical)				
Total Price	Unit Price	Description	UNIT	QTY
1 Lighting				
		Supply and install hidden LED light 25W with all required electrical installations and accessories including required switches	No	20
		Supply and install hidden spot LED light with all required electrical installations and accessories including required switches	No	20
Subtotal				
2 Sockets				
		Supply and install Sockets with all required electrical installations and accessories including required switches	No	20
Subtotal				
3 Telephone and Data				
		Supply and install Data socket with all required installations including cables, outlets covers....etc.	No	6
		Supply and install Telephone Socket with all required installations including cables, outlets covers....etc.	No	6
Subtotal				
4 Maintenance work for the existing CCTV system				
		Maintenace work for all exusting cctv system, electrical, data, and telphone cable through the work time	Lump sum	1

UNDP Main Entrance- Estimated Bill of Quantity (Mechanical)				
Total Price	Unit Price	Description	UNIT	QTY
1 Ventilation				
	1.1	Full maintenace for the existing Ventiletion system	No	1
	1.2	Full Maintenance for the existing AC.	each	2

BOQ-new Bath rooms in the main building**Bill of Quantity**

Bill of quantity					
item	description	unit	Qty	Unit Price	Total Price
1-	Peeling off and excavation works of the existing ceramic, bathtub, washbasin, toilet and the heating radiator.	-	Lump sum		
2- ceramic	Supply and install ceramic for walls, including labors, materials and all required works.	M2	38		
3- painting	Painting Works for ceiling including labors, materials and all required works	M2	7		
4- Doors	Supply and install wooden doors (203x62.5cm) with all required accessories and installations, including painting	-	2		
5- Gypsum board	Supply and install Fixed gypsum board for wall with metal support structure.	M2	8		
6- Windows	Supply and install fixed aluminum window (45x45cm), with all required accessories and installations.	-	2		
7- Basins	Supply and install two Porcelain Wash Basin Integrated with Marble Top Up stand and all required installation and accessories	-	2		
8- Toilets	Supply and install W.C Faucet with all required accessories	-	2		
9-	Supply and install new slim heating radiators	-	2		
10- ventilation	Supply and install Ventilation Industrial fan for Bathroom with all required electrical installation.	-	2		
11- Water system	Supply and install Utility Water System (PEX tubing), outlets valves, fittings and all other accessories	-	Lump sum		
12- Waste water system	Supply and install Waste Water System (PVC pipes) and all required accessories and installation	-	Lump sum		
13- electricity& light	Supply and install all necessary electrical circulation and Wall mounted- ceiling mounted light.	-	Lump sum		

Pool coverage- metal construction:

Bill of quantity							
item	description	dimension	thickness	length	weight	Unit Price	Total Price
		Unit mm	Unit mm	Unit m	Unit kg		
1	Supply and install supporting metal tube, (vertical and horizontal) and all the necessary	100x80	3	45	390		

	accessories.						
2	Supply and install supporting metal tube (horizontal) and all the necessary accessories.	100x40	3	18	114		
		dimension	thickness	area	weight	Unit Price	Total Price
		Unit m	Unit mm	Unit m2	Unit kg		
3	Supply and install floor metal plate	6x3.4	4	20.5	656		
4	Supply and install insulation	6x3.4	-	20.5	-		
5	Stone floor tiles	6x3.4	3	20.5	-		
		dimension	thickness	area	volume		
		Unit m	Unit mm	Unit m2	Unit m3		
6	Cement coat	6x3.4	25	20.5	0.5		
7	Sand	6x3.4	100	20.5	2.05		

Pool coverage- sand filled up:

Floor covering - sand lined up:							
item	Description	Dimension	Thickness	Volume		Unit Price	Total Price
		Unit m	Unit mm	Unit m3			
1	Supplying and pouring sand inside the pool	6x3.4	1600	33			
2	Supporting Reinforced concrete coat	6x3.4	10	2.04			
3	Supply and pouring a surface sand coat	6x3.4	10	0.204			
4	Supply and install stone floor tiles	6x3.4	3	20.5	M2		

Section 8: FORM FOR PERFORMANCE SECURITY⁷

(This must be finalized using the official letterhead of the Issuing Bank. Except for indicated fields, no changes may be made in this template.)

To: UNDP
[Insert contact information as provided in Data Sheet]

WHEREAS *[name and address of Contractor]* (hereinafter called “the Contractor”) has undertaken, in pursuance of Contract No. Click to enter dated Click to enter , to deliver the goods and execute related services [Click here to enter text](#). (hereinafter called “the Contract”):

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract:

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of *[amount of guarantee] [in words and numbers]*, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[amount of guarantee as aforesaid]* without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

This guarantee shall be valid until a date 30 days from the date of issue by UNDP of a certificate of satisfactory performance and full completion of services by the Contractor.

SIGNATURE AND SEAL OF THE GUARANTOR BANK

Date

Name of Bank

Address

from the final product.

⁷ If the RFP requires the submission of a Performance Security, which shall be made a condition to the signing and effectivity of the contract, the Performance Security that the Bidder's Bank will issue shall use the contents of this template

Section 9: Contract

MODEL CONTRACT FOR WORKS

Date _____

Dear Sir/Madam,

Ref.: ____/____/____ [INSERT PROJECT NUMBER AND TITLE]

The United Nations Development Programme (hereinafter referred to as "UNDP"), wishes to engage your company, duly incorporated under the Laws of _____ [INSERT NAME OF THE COUNTRY] (hereinafter referred to as the "Contractor") in order to perform _____ [INSERT SUMMARY DESCRIPTION OF THE WORKS] (hereinafter referred to as the "Works"), in accordance with the following Contract:

1. Contract Documents

- 1.1 This Contract is subject to the UNDP General Conditions for Civil Works, _____ [INSERT REVISION NUMBER AND DATE FROM THE CONTRACTS DOCUMENTS LIBRARY], attached hereto as Annex I. The provisions of such Annex shall control the interpretation of this Contract and in no way shall be deemed to have been derogated by the contents of this letter and any other Annexes, unless otherwise expressly stated under section 4 of this letter, entitled "Special Conditions".
- 1.2 The Contractor and UNDP also agree to be bound by the provisions contained in the following documents, which shall take precedence over one another in case of conflict in the following order:
- a) this letter;
 - b) the Scope of Works and BOQs [ref.dated.....], attached hereto as Annex II;
 - c) the Contractor's Tender _____ [IF THE CONTRACT IS ON THE BASIS OF UNIT PRICE, INSERT: including the Priced Bill of Quantities] [ref....., dated], as clarified by the agreed minutes of the negotiation meeting⁸ [dated.....], not attached hereto but known to and in the possession of both parties.
- 1.3 All the above shall form the Contract between the Contractor and UNDP, superseding the contents of any other negotiations and/or agreements, whether oral or in writing, pertaining to the subject of this Contract.

[INSERT NAME AND ADDRESS OF THE CONTRACTOR]

2. Obligations of the Contractor

- 2.1 The Contractor shall commence work within ____ [INSERT NUMBER OF DAYS] days from the date on which he shall have been given access to the Site and received the notice to commence from the Engineer, and shall perform and substantially complete the Works by .././.... [INSERT DATE], in accordance with the Contract. The Contractor shall provide all materials, supplies, labour and other services necessary to that end.
- 2.2 The Contractor shall submit to the Engineer the Programme of Work referred to in Clause 13 of the General Conditions by .././.... [INSERT DATE].
- 2.3 The Contractor represents and warrants the accuracy of any information or data provided to UNDP for the purpose of

⁸ If there are updates to the technical proposal or correspondence exchanged in clarification of certain aspects, reference them too, provided that they are acceptable to UNDP. Otherwise, aspects which resolution is pending should be dealt with in this letter itself or in the Technical Specifications/Drawings, as appropriate.

entering into this Contract, as well as the quality of the Works foreseen under this Contract in accordance with the highest industrial and professional standards.

OPTION 1 (FIXED PRICE)

3. Price and Payment⁹

- 3.1 In full consideration of the complete and satisfactory performance of the Works under this Contract, UNDP shall pay the Contractor a fixed contract price of _____ **[INSERT CURRENCY & AMOUNT IN FIGURES AND WORDS]**.
- 3.2 The price of this Contract is not subject to any adjustment or revision because of price or currency fluctuations or the actual costs incurred by the Contractor in the performance of the Contract.
- 3.3 Invoices shall be submitted by the Contractor to the Engineer upon achievement of the corresponding milestones and for the following amounts:

<u>MILESTONE</u> ¹⁰	<u>AMOUNT</u>	<u>DATE</u>
Upon signature of Contract/./....
....././....
Upon substantial completion of Works/./....
Upon final completion of Works/./....

OPTION 2 (COST REIMBURSEMENT)

3. Price and payment

- 3.1 The total estimated price of the Contract is contained in the Bill of Quantities and amounts to _____ **[INSERT CURRENCY & AMOUNT IN FIGURES AND WORDS]**.
- 3.2 The final price of the Contract will be determined on the basis of the actual quantities of work and materials utilized in the complete and satisfactory performance of the Works as certified by the Engineer and the unit prices contained in the Contractor's financial proposal. Such unit prices are fixed and are not subject to any variation whatsoever.
- 3.3 If the Contractor foresees that the final price of the Contract may exceed the total estimated price contained in 3.1 above, he shall so inform the Engineer without delay, in order for UNDP to decide, at its discretion, to increase the estimated price of the Contract as a result of a larger quantity of work/material or to reduce the quantity of work to be performed or materials to be used. UNDP shall not be responsible for payment of any amount in excess of that stipulated in 3.1 above unless this latter amount has been increased by means of a written amendment of this Contract in accordance with its paragraph 8 below.
- 3.4 The Contractor shall submit an invoice for _____ **[INSERT AMOUNT AND CURRENCY OF THE ADVANCE PAYMENT IN FIGURES & WORDS]** upon signature of this Contract by both parties, invoices for the work performed and materials utilized every _____ **[INSERT PERIOD OF TIME OR MILESTONES]** and a final invoice within 30 days from the issuance of the Certificate of Substantial Completion by the Engineer.¹¹

⁹ This version of section 3 is to be used for fixed price contracts. Fixed price contracts should normally be used when it is possible to estimate with reasonable accuracy the costs of the activities which are the subject of the Contract.

¹⁰ In the case of advance payments, the amount should not exceed 15%.

¹¹ In the case of advance payments, the amount should not exceed 15%.

[THE FOLLOWING CLAUSES ARE COMMON TO OPTIONS 1 & 2 AND MUST BE NUMBERED ACCORDING TO THE OPTION CHOSEN FOR ARTICLE 3]

- 3.@ UNDP shall effect payment of the invoices after receipt of the certificate of payment issued by the Engineer, approving the amount contained in the invoice. The Engineer may make corrections to that amount, in which case UNDP may effect payment for the amount so corrected. The Engineer may also withhold invoices if the work is not performed at any time in accordance with the terms of the Contract or if the necessary insurance policies or performance security are not valid and/or in order. The Engineer shall process the invoices submitted by the Contractor within 15 days of their receipt.
- 3.@ Payments effected by UNDP to the Contractor shall be deemed neither to relieve the Contractor of its obligations under this Contract nor as acceptance by UNDP of the Contractor's performance of the Works.
- 3.@ Payment of the final invoice shall be effected by UNDP after issuance of the Certificate of Final Completion by the Engineer.

4. **Special conditions**¹²

- 4.1 The advance payment to be made upon signature of the contract by both parties is contingent upon receipt and acceptance by UNDP of a bank guarantee ¹³for the full amount of the advance payment issued by a Bank and in a form acceptable to UNDP.¹⁴
- 4.2 The amounts of the payments referred to under section 3.6 above shall be subject to a deduction of _____ **[INSERT PERCENTAGE OF TOTAL CONTRACT PRICE THAT THE ADVANCE REPRESENTS]** % (... percent) of the amount accepted for payment until the cumulative amount of the deductions so effected shall equal the amount of the advance payment.¹⁵ Should the cumulative amount of the deductions so made be lower than the amount of the advance payment after the date of substantial completion of the Works, UNDP may deduct the amount equal to the difference between the advance payment and the cumulative deductions from the payments due after substantial completion or may recover such amount from the bank guarantee referred to in 4.1 above.
- 4.3 The Performance **[SELECT BOND/GUARANTEE]** referred to in Clause 10 of the General Conditions shall be submitted by the Contractor for an amount of _____ **[INSERT -PERCENTAGE OF THE TOTAL]**
- ESTIMATED OR FIXED PRICE OF THE CONTRACT IN THE CASE OF A GUARANTEE AND 30% IN THE CASE OF A BOND].¹⁶**
- 4.4 **[THE USE OF THIS CLAUSE REQUIRES APPROVAL BY THE PROJECT DIRECTOR/UNDP PROGRAMME OFFICER]** The Contractor may submit invoices for materials and plant stored at the Site, provided they are necessary and adequate for the performance of the Works and they are protected from weather conditions and duly insured as per the instructions of the Engineer.
- 4.5 The liability insurance referred to in Clause 23 of the General Conditions shall be taken out by the Contractor for an amount of..... **[CONSULT THE ENGINEER FOR APPROPRIATE AMOUNT]**.
- 4.6 According to Clause 45 of the General Conditions, the liquidated damages for delay shall be ____ **[INSERT PERCENTAGE]** of the price of the Contract per week of delay, up to a maximum of 10% of the final price of the Contract.

¹² Under this Section, the Programme Officer may propose special clauses in order to adapt the model contract to the specific situation. In this sample clause 4, several clauses of common use are given. If they are not required, they should be deleted.

¹³ If the legislation of the Country of the Contractor forbids the use of bank guarantees, a bond may be accepted.

¹⁴ This clause must be used when an advance payment of \$50,000 or more is granted to the Consultant..

¹⁵ This clause must be used when an advance payment is granted (whatever the amount) in a cost reimbursement contract.

¹⁶ The reason for the distinction between a 10% bank guarantee and a 30% performance bond is that bank guarantees are generally unconditional and can be called directly without proof of nonperformance, whereas most performance bonds are conditional and require some proof of nonperformance. There are usually additional costs and time delays incurred with cashing a performance bond and so a higher percentage is requested to cover the extra work involved. Some banks outside of the U.S. may call certain guarantee instruments, "performance bonds or guarantees" although they may only be conditional guarantees. It is important to review the text of the instrument to determine whether it is a conditional or unconditional guarantee.

5. Submission of invoices

5.1 One original and one copy of every invoice shall be submitted by mail by the Contractor for each payment under the Contract to the Engineer's address specified in clause 8.2.

5.2 Invoices submitted by fax shall not be accepted by UNDP.

6. Time and manner of payment

6.1 Invoices shall be paid within thirty (30) days of the date of their receipt and acceptance by UNDP.

6.2 All payments shall be made by UNDP to the following Bank account of the Contractor:

_____ [NAME OF THE BANK]

_____ [ACCOUNT NUMBER]

_____ [ADDRESS OF THE BANK]

7. Modifications

7.1 Any modification to this Contract shall require an amendment in writing between both parties duly signed by the authorized representatives of the Contractor and UNDP.

Notifications

8.1 For the purpose of notifications under the Contract, the addresses of UNDP and the Contractor are as follows:

For the UNDP:

UNDP Resident Representative

United Nations Development Programme

Syria, Damascus

Mezzeh, West Villas, Ghazawi St. 8

Tel: +963 11 612 98 12

Fax: +963 11 611 45 41

CONTRACT Ref. ____/____/____ [INSERT CONTRACT REFERENCE & NUMBER]

For the Contractor:

[Insert Name, Address and Telex,
Fax and Cable Numbers]

8.2 For the purposes of communications with the Engineer, the address of the Engineer shall be as follows:

[Insert Name, Address and Telex,
Fax and Cable Numbers of the Engineer]

OR

8.2 UNDP shall communicate as soon as possible to the Contractor after the signature of the Contract, the address of the Engineer for the purposes of communication with the Engineer under the Contract.

If the above terms and conditions meet with your agreement as typed in this letter and in the Contract Documents, please initial every page of this letter and its attachments and return to this office one original of this Contract, duly signed and dated.

Yours sincerely,

[INSERT NAME OF RR or Bureau/Division Director]

For [Insert name of the company/organization]

Agreed and Accepted:

Signature _____

Name _____

Title _____

Date _____

