



*Empowered lives.
Resilient nations.*

INVITATION TO BID

REHABILITATION OF PALMEIRAS SECONDARY SCHOOL - BEIRA

ITB No.: ITB_009_2021_UNDP Mozambique

Project: 00117637- Mozambique Recovery Facility – Pillar II

Country: Mozambique

Issued on: 26 July 2021

Contents

Section 1. Letter of Invitation	4
Section 2. Instruction to Bidders	5
GENERAL PROVISIONS	5
1. Introduction	5
2. Fraud & Corruption, Gifts and Hospitality.....	5
3. Eligibility	5
4. Conflict of Interests	6
B. PREPARATION OF BIDS.....	6
5. General Considerations.....	6
6. Cost of Preparation of Bid	7
7. Language	7
8. Documents Comprising the Bid	7
9. Documents Establishing the Eligibility and Qualifications of the Bidder.....	7
10. Technical Bid Format and Content	7
11. Price Schedule	7
12. Bid Security	7
13. Currencies	8
14. Joint Venture, Consortium or Association	8
15. Only One Bid	9
16. Bid Validity Period	9
17. Extension of Bid Validity Period.....	9
18. Clarification of Bid (from the Bidders).....	10
19. Amendment of Bids.....	10
20. Alternative Bids.....	10
21. Pre-Bid Conference	10
C. SUBMISSION AND OPENING OF BIDS	11
22. Submission	11
Hard copy (manual) submission.....	11
Email and eTendering submissions.....	11
23. Deadline for Submission of Bids and Late Bids	11
24. Withdrawal, Substitution, and Modification of Bids	12
25. Bid Opening.....	12
D. EVALUATION OF BIDS.....	12
26. Confidentiality	12
27. Evaluation of Bids	12
28. Preliminary Examination	13
29. Evaluation of Eligibility and Qualification	13

30. Evaluation of Technical Bid and prices	13
31. Due diligence	13
32. Clarification of Bids.....	14
33. Responsiveness of Bid	14
34. Nonconformities, Reparable Errors and Omissions.....	14
E. AWARD OF CONTRACT.....	15
35. Right to Accept, Reject, Any or All Bids	15
36. Award Criteria.....	15
37. Debriefing	15
38. Right to Vary Requirements at the Time of Award.....	15
39. Contract Signature.....	15
40. Contract Type and General Terms and Conditions.....	15
41. Performance Security	15
42. Bank Guarantee for Advanced Payment	15
43. Liquidated Damages	16
44. Payment Provisions	16
45. Vendor Protest.....	16
46. Other Provisions	16
Section 3. Bid Data Sheet.....	17
Section 4. Evaluation Criteria	21
Section 5a: Scope of Work.....	25
Annexes	1
Section 5b: Other Related Requirements	1
Section 6: Returnable Bidding Forms / Checklist.....	1
Form A: Bid Submission Form	2
Form B: Bidder Information Form	3
Form C: Joint Venture/Consortium/Association Information Form	5
Form D: Eligibility and Qualification Form	6
Form E: Format of Technical Bid	8
FORM F: Price Schedule Form	11
FORM G: Form of Bid Security.....	12

SECTION 1. LETTER OF INVITATION

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 and the General Terms and Conditions of Contract which is inserted in the Bid Data Sheet:

- Section 1: This Letter of Invitation
- Section 2: Instruction to Bidders
- Section 3: Bid Data Sheet (BDS)
- Section 4: Evaluation Criteria
- Section 5: Schedule of Requirements and Technical Specifications
- Section 6: Returnable Bidding Forms
 - o Form A: Bid Submission Form
 - o Form B: Bidder Information Form
 - o Form C: Joint Venture/Consortium/Association Information Form
 - o Form D: Qualification Form
 - o Form E: Format of Technical Bid
 - o Form F: Price Schedule
 - o Form G: Form of Bid Security
 - o Drawings (separate attachment)

The tender document and its annexes appear online through UNDP online procurement platform:

<https://etendering.partneragencies.org> Event ID: **ITB00921**

If your company is not registered in the e-Tendering Module, please use the following temporary username and password to register your company/firm:

Username: event.guest

Password: why2change

Kindly note that UNDP only accepts submissions through its e-procurement. To indicate your interest, please select the function/button "Accept Invitation" in eTendering system, where applicable. This will enable you to keep track on amendments or updates related to this process. Should you require further clarifications, kindly communicate with the named focal point, identified in the Data Sheet.

Please ensure your tender is prepared in accordance with the requirements as set out in the ITB document. Your tender should be submitted well before the Deadline for Submission of Bids stipulated in the Bid Data Sheet to avoid last minute rush.

Please acknowledge receipt of this ITB by sending an email to procurement.mozambique@undp.org indicating whether you intend to submit a Bid or otherwise.

Issued by



Name: Martin Boben

Title: Head of Procurement

Date: **July 26, 2021**

Approved by:



Name: Diego Alves

Title: Operations Manager

Date: **July 26, 2021**

SECTION 2. INSTRUCTION TO BIDDERS

GENERAL PROVISIONS	
1. Introduction	<p>1.1 Bidders shall adhere to all the requirements of this ITB, including any amendments made in writing by UNDP. This ITB is conducted in accordance with the UNDP Programme and Operations Policies and Procedures (POPP) on Contracts and Procurement which can be accessed at https://popp.undp.org/SitePages/POPPBSUnit.aspx?TermID=254a9f96-b883-476a-8ef8-e81f93a2b38d</p> <p>1.2 Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this ITB.</p> <p>1.3 UNDP reserves the right to cancel the procurement process at any stage without any liability of any kind for UNDP, upon notice to the bidders or publication of cancellation notice on UNDP website.</p> <p>1.4 As part of the bid, it is desired that the Bidder registers at the United Nations Global Marketplace (UNGM) website (www.ungm.org). The Bidder may still submit a bid even if not registered with the UNGM. However, if the Bidder is selected for contract award, the Bidder must register on the UNGM prior to contract signature.</p>
2. Fraud & Corruption, Gifts and Hospitality	<p>2.1 UNDP strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of UNDP vendors and requires all bidders/vendors observe the highest standard of ethics during the procurement process and contract implementation. UNDP's Anti-Fraud Policy can be found at http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_andinvestigation.html#anti</p> <p>2.2 Bidders/vendors shall not offer gifts or hospitality of any kind to UNDP staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or invitations to extravagant lunches or dinners.</p> <p>2.3 In pursuance of this policy, UNDP:</p> <p>(a) Shall reject a bid if it determines that the selected bidder has engaged in any corrupt or fraudulent practices in competing for the contract in question;</p> <p>(b) Shall declare a vendor ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the vendor has engaged in any corrupt or fraudulent practices in competing for, or in executing a UNDP contract.</p> <p>2.4 All Bidders must adhere to the UN Supplier Code of Conduct, which may be found at http://www.un.org/depts/ptd/pdf/conduct_english.pdf</p>
3. Eligibility	<p>3.1 A vendor should not be suspended, debarred, or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization. Vendors are therefore required to disclose to UNDP whether they are subject to any sanction or temporary suspension imposed by these organizations.</p>

	3.2	It is the Bidder's responsibility to ensure that its employees, joint venture members, sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by UNDP.
4. Conflict of Interests	4.1	<p>Bidders must strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. 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:</p> <ul style="list-style-type: none"> a) Are or have been associated in the past, with a firm or any of its affiliates which have been engaged by UNDP to provide services for the preparation of the design, specifications, Terms of Reference, cost analysis/estimation, and other documents to be used for the procurement of the goods and services in this selection process; b) Were involved in the preparation and/or design of the programme/project related to the goods and/or services requested under this ITB; or c) Are found to be in conflict for any other reason, as may be established by, or at the discretion of UNDP.
	4.2	In the event of any uncertainty in the interpretation of a potential conflict of interest, Bidders must disclose to UNDP, and seek UNDP's confirmation on whether or not such conflict exists.
	4.3	<p>Similarly, the Bidders must disclose in their Bid their knowledge of the following:</p> <ul style="list-style-type: none"> a) If the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel who are family members of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving goods and/or services under this ITB; and b) All other circumstances that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices. <p>Failure to disclose such an information may result in the rejection of the Bid or Bids affected by the non-disclosure.</p>
	4.4	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, operated and managed as an independent business entity, the extent of Government ownership/share, receipt of subsidies, mandate and access to information in relation to this ITB, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Bid.
B. PREPARATION OF BIDS		
5. General Considerations	5.1	In preparing the Bid, the Bidder is expected to examine the ITB in detail. Material deficiencies in providing the information requested in the ITB may result in rejection of the Bid.
	5.2	The Bidder will not be permitted to take advantage of any errors or omissions in the ITB. Should such errors or omissions be discovered, the Bidder must notify the UNDP accordingly.

6. Cost of Preparation of Bid	6.1 The Bidder shall bear all costs related to the preparation and/or submission of the Bid, regardless of whether its Bid is selected or not. UNDP shall not be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.
7. Language	7.1 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 BDS.
8. Documents Comprising the Bid	8.1 The Bid shall comprise of the following documents and related forms which details are provided in the BDS: <ul style="list-style-type: none"> a) Documents Establishing the Eligibility and Qualifications of the Bidder; b) Technical Bid; c) Price Schedule; d) Bid Security, if required by BDS; e) Any attachments and/or appendices to the Bid.
9. Documents Establishing the Eligibility and Qualifications of the Bidder	9.1 The Bidder shall furnish documentary evidence of its status as an eligible and qualified vendor, using the Forms provided under Section 6 and providing documents required in those forms. In order to award a contract to a Bidder, its qualifications must be documented to UNDP's satisfaction.
10. Technical Bid Format and Content	<p>10.1 The Bidder is required to submit a Technical Bid using the Standard Forms and templates provided in Section 6 of the ITB.</p> <p>10.2 Samples of items, when required as per Section 5, shall be provided within the time specified and unless otherwise specified by the Purchaser, at no expense to the UNDP. If not destroyed by testing, samples will be returned at Bidder's request and expense, unless otherwise specified.</p> <p>10.3 When applicable and required as per Section 5, the Bidder shall describe the necessary training programme available for the maintenance and operation of the equipment offered as well as the cost to the UNDP. Unless otherwise specified, such training as well as training materials shall be provided in the language of the Bid as specified in the BDS.</p> <p>10.4 When applicable and required as per Section 5, the Bidder shall certify the availability of spare parts for a period of at least five (5) years from date of delivery, or as otherwise specified in this ITB.</p>
11. Price Schedule	<p>11.1 The Price Schedule shall be prepared using the Form provided in Section 6 of the ITB and taking into consideration the requirements in the ITB.</p> <p>11.2 Any requirement described in the Technical Bid but not priced in the Price Schedule, shall be assumed to be included in the prices of other activities or items, as well as in the final total price.</p>
12. Bid Security	<p>12.1 A Bid Security, if required by BDS, shall be provided in the amount and form indicated in the BDS. The Bid Security shall be valid for a minimum of thirty (30) days after the final date of validity of the Bid.</p> <p>12.2 The Bid Security shall be included along with the Bid. If Bid Security is required by the ITB but is not found in the Bid, the offer shall be rejected.</p>

	<p>12.3 If the Bid Security amount or its validity period is found to be less than what is required by UNDP, UNDP shall reject the Bid.</p> <p>12.4 In the event an electronic submission is allowed in the BDS, Bidders shall include a copy of the Bid Security in their bid and the original of the Bid Security must be sent via courier or hand delivery as per the instructions in BDS.</p> <p>12.5 The Bid Security may be forfeited by UNDP, and the Bid rejected, in the event of any, or combination, of the following conditions:</p> <ul style="list-style-type: none"> a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or; b) In the event the successful Bidder fails: <ul style="list-style-type: none"> i. to sign the Contract after UNDP has issued an award; or ii. to furnish the Performance Security, insurances, or other documents that UNDP may require as a condition precedent to the effectivity of the contract that may be awarded to the Bidder.
13. Currencies	<p>13.1 All prices shall be quoted in the currency or currencies indicated in the BDS. Where Bids are quoted in different currencies, for the purposes of comparison of all Bids:</p> <ul style="list-style-type: none"> a) 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 Bids; and b) In the event that UNDP selects a Bid for award that is quoted in a currency different from the preferred currency in the BDS, UNDP shall reserve the right to award the contract in the currency of UNDP's preference, using the conversion method specified above.
14. Joint Venture, Consortium or Association	<p>14.1 If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for 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 JV, Consortium or Association jointly and severally, which shall be evidenced by a duly notarized Agreement among the legal entities, and submitted 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 the member entities comprising the joint venture.</p> <p>14.2 After the Deadline for Submission of Bid, the lead entity identified to represent the JV, Consortium or Association shall not be altered without the prior written consent of UNDP.</p> <p>14.3 The lead entity and the member entities of the JV, Consortium or Association shall abide by the provisions of Clause 9 herein in respect of submitting only one Bid.</p> <p>14.4 The description of the organization of the JV, Consortium or Association must clearly define the expected role of each of the entities in the joint venture in delivering the requirements of the ITB, both in the Bid and the JV, Consortium or Association Agreement. All entities that comprise the JV, Consortium or Association shall be subject to the eligibility and qualification assessment by UNDP.</p>

	<p>14.5 A JV, Consortium or Association in presenting its track record and experience should clearly differentiate between:</p> <ul style="list-style-type: none"> a) Those that were undertaken together by the JV, Consortium or Association; and b) Those that were undertaken by the individual entities of the JV, Consortium or Association. <p>14.6 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 JV, Consortium or Association or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials</p> <p>14.7 JV, Consortium or Associations are encouraged for high value, multi-sectoral requirements when the spectrum of expertise and resources required may not be available within one firm.</p>
15. Only One Bid	<p>15.1 The Bidder (including the individual members of any Joint Venture) shall submit only one Bid, either in its own name or as part of a Joint Venture.</p> <p>15.2 Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:</p> <ul style="list-style-type: none"> 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 some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this ITB process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.
16. Bid Validity Period	<p>16.1 Bids shall remain valid for the period specified in the BDS, commencing on the Deadline for Submission of Bids. A Bid valid for a shorter period may be rejected by UNDP and rendered non-responsive.</p> <p>16.2 During the Bid validity period, the Bidder shall maintain its original Bid without any change, including the availability of the Key Personnel, the proposed rates and the total price.</p>
17. Extension of Bid Validity Period	<p>17.1 In exceptional circumstances, prior to the expiration of the Bid validity period, UNDP may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing, and shall be considered integral to the Bid.</p> <p>17.2 If the Bidder agrees to extend the validity of its Bid, it shall be done without any change to the original Bid.</p>

	17.3 The Bidder has the right to refuse to extend the validity of its Bid, in which case, the Bid shall not be further evaluated.
18. Clarification of Bid (from the Bidders)	<p>18.1 Bidders may request clarifications on any of the ITB documents no later than the date indicated in the BDS. Any request for clarification must be sent in writing in the manner indicated in the BDS. If inquiries are sent other than specified channel, even if they are sent to a UNDP staff member, UNDP shall have no obligation to respond or confirm that the query was officially received.</p> <p>18.2 UNDP will provide the responses to clarifications through the method specified in the BDS.</p> <p>18.3 UNDP shall endeavour to provide 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 Bids, unless UNDP deems that such an extension is justified and necessary.</p>
19. Amendment of Bids	<p>19.1 At any time prior to the deadline of Bid submission, UNDP may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of an amendment to the ITB. Amendments will be made available to all prospective bidders.</p> <p>19.2 If the amendment is substantial, UNDP may extend the Deadline for submission of Bid to give the Bidders reasonable time to incorporate the amendment into their Bids.</p>
20. Alternative Bids	<p>20.1 Unless otherwise specified in the BDS, alternative Bids shall not be considered. If submission of alternative Bid is allowed by BDS, a Bidder may submit an alternative Bid, but only if it also submits a Bid conforming to the ITB requirements. 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.</p> <p>20.2 If multiple/alternative bids are being submitted, they must be clearly marked as "Main Bid" and "Alternative Bid"</p>
21. Pre-Bid Conference	21.1 When appropriate, a pre-bid conference will be conducted at the date, time and location specified in the BDS. 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 disseminated on the procurement website and shared by email or on the e-Tendering platform as specified in the BDS. No verbal statement made during the conference shall modify the terms and conditions of the ITB, unless specifically incorporated in the Minutes of the Bidder's Conference or issued/posted as an amendment to ITB.

C. SUBMISSION AND OPENING OF BIDS	
22. Submission	<p>22.1 The Bidder shall submit a duly signed and complete Bid comprising the documents and forms in accordance with requirements in the BDS. The Price Schedule shall be submitted together with the Technical Bid. Bid can be delivered either personally, by courier, or by electronic method of transmission as specified in the BDS.</p> <p>22.2 The Bid shall be signed by the Bidder or person(s) duly authorized to commit the Bidder. The authorization shall be communicated through a document evidencing such authorization issued by the legal representative of the bidding entity, or a Power of Attorney, accompanying the Bid.</p> <p>22.3 Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder fully accepts the UNDP General Contract Terms and Conditions.</p>
Hard copy (manual) submission	<p>22.4 Hard copy (manual) submission by courier or hand delivery allowed or specified in the BDS shall be governed as follows:</p> <p>a) The signed Bid shall be marked "Original", and its copies marked "Copy" as appropriate. The number of copies is indicated in the BDS. All copies shall be made from the signed original only. If there are discrepancies between the original and the copies, the original shall prevail.</p> <p>(b) The Technical Bid and Price Schedule must be sealed and submitted together in an envelope, which shall:</p> <ol style="list-style-type: none"> Bear the name of the Bidder; Be addressed to UNDP as specified in the BDS; and Bear a warning not to open before the time and date for Bid opening as specified in the BDS. <p>If the envelope with the Bid is not sealed and marked as required, UNDP shall assume no responsibility for the misplacement, loss, or premature opening of the Bid.</p>
Email and eTendering submissions	<p>22.5 Electronic submission through email or eTendering, if allowed as specified in the BDS, shall be governed as follows:</p> <ol style="list-style-type: none"> Electronic files that form part of the Bid must be in accordance with the format and requirements indicated in BDS; Documents which are required to be in original form (e.g. Bid Security, etc.) must be sent via courier or hand delivered as per the instructions in BDS. <p>22.6 Detailed instructions on how to submit, modify or cancel a bid in the eTendering system are provided in the eTendering system Bidder User Guide and Instructional videos available on this link: http://www.undp.org/content/undp/en/home/operations/procurement/business/procurement-notices/resources/</p>
23. Deadline for Submission of Bids and Late Bids	<p>23.1 Complete Bids must be received by UNDP in the manner, and no later than the date and time, specified in the BDS. UNDP shall only recognise the actual date and time that the bid was received by UNDP</p>

	23.2 UNDP shall not consider any Bid that is received after the deadline for the submission of Bids.
24. Withdrawal, Substitution, and Modification of Bids	<p>24.1 A Bidder may withdraw, substitute or modify its Bid after it has been submitted at any time prior to the deadline for submission.</p> <p>24.2 Manual and Email submissions: A bidder may withdraw, substitute or modify its Bid by sending a written notice to UNDP, 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, if any, must accompany the respective written notice. All notices must be submitted in the same manner as specified for submission of Bids, by clearly marking them as "WITHDRAWAL" "SUBSTITUTION," or "MODIFICATION"</p> <p>24.3 eTendering: A Bidder may withdraw, substitute or modify its Bid by Cancelling, Editing, and re-submitting the Bid directly in the system. It is the responsibility of the Bidder to properly follow the system instructions, duly edit and submit a substitution or modification of the Bid as needed. Detailed instructions on how to cancel or modify a Bid directly in the system are provided in the Bidder User Guide and Instructional videos.</p> <p>24.4 Bids requested to be withdrawn shall be returned unopened to the Bidders (only for manual submissions), except if the bid is withdrawn after the bid has been opened.</p>
25. Bid Opening	<p>25.1 UNDP will open the Bid in the presence of an ad-hoc committee formed by UNDP of at least two (2) members.</p> <p>25.2 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 submissions, in which case, the Bid shall be returned unopened to the Bidders.</p> <p>25.3 In the case of e-Tendering submission, bidders will receive an automatic notification once the Bid is opened.</p>
D. EVALUATION OF BIDS	
26. Confidentiality	<p>26.1 Information relating to the examination, evaluation, and comparison of Bids, 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.</p> <p>26.2 Any effort by a Bidder or anyone on behalf of the Bidder to influence UNDP in the examination, evaluation and comparison of the Bids or contract award decisions may, at UNDP's decision, result in the rejection of its Bid and may subsequently be subject to the application of prevailing UNDP's vendor sanctions procedures.</p>
27. Evaluation of Bids	<p>27.1 UNDP will conduct the evaluation solely on the basis of the Bids received.</p> <p>27.2 Evaluation of Bids shall be undertaken in the following steps:</p> <ul style="list-style-type: none"> a) Preliminary Examination including Eligibility b) Arithmetical check and ranking of bidders who passed preliminary examination by price.

	<ul style="list-style-type: none"> c) Qualification assessment (if pre-qualification was not done) a) Evaluation of Technical Bids b) Evaluation of prices <p>Detailed evaluation will be focussed on the 3 - 5 lowest priced bids. Further higher priced bids shall be added for evaluation if necessary</p>
28. Preliminary Examination	<p>28.1 UNDP shall examine the Bids to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, and whether the Bids are generally in order, among other indicators that may be used at this stage. UNDP reserves the right to reject any Bid at this stage.</p>
29. Evaluation of Eligibility and Qualification	<p>29.1 Eligibility and Qualification of the Bidder will be evaluated against the Minimum Eligibility/Qualification requirements specified in the Section 4 (Evaluation Criteria).</p> <p>29.2 In general terms, vendors that meet the following criteria may be considered qualified:</p> <ul style="list-style-type: none"> a) They are not included in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers, and in UNDP's ineligible vendors' list; b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments, c) They have the necessary similar experience, technical expertise, production capacity, quality certifications, quality assurance procedures and other resources applicable to the supply of goods and/or services required; d) They are able to comply fully with the UNDP General Terms and Conditions of Contract; e) They do not have a consistent history of court/arbitral award decisions against the Bidder; and f) They have a record of timely and satisfactory performance with their clients.
30. Evaluation of Technical Bid and prices	<p>30.1 The evaluation team shall review and evaluate the Technical 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 BDS and other ITB documents. When necessary, and if stated in the BDS, UNDP may invite technically responsive bidders for a presentation related to their technical Bids. The conditions for the presentation shall be provided in the bid document where required.</p>
31. Due diligence	<p>31.1 UNDP reserves the right to undertake a due diligence exercise, aimed at determining to its satisfaction, the validity of the information provided by the Bidder. Such exercise shall be fully documented and may include, but need not be limited to, all or any combination of the following:</p> <ul style="list-style-type: none"> a) Verification of accuracy, correctness and authenticity of information provided by the Bidder; 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 with previous clients, or any other entity that may have done business with the Bidder;

	<ul style="list-style-type: none"> d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of previous works, as deemed necessary; e) Physical inspection of the Bidder's offices, branches or other places where business transpires, with or without notice to the Bidder; f) Other means that UNDP may deem appropriate, at any stage within the selection process, prior to awarding the contract.
32. Clarification of Bids	<p>32.1 To assist in the examination, evaluation and comparison of Bids, UNDP may, at its discretion, request any Bidder for a clarification of its Bid.</p> <p>32.2 UNDP's request for clarification and the response shall be in writing and 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 Bids, in accordance with the ITB.</p> <p>32.3 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 Bids.</p>
33. Responsiveness of Bid	<p>33.1 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, specifications and other requirements of the ITB without material deviation, reservation, or omission.</p> <p>33.2 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.</p>
34. Nonconformities, Repairable Errors and Omissions	<p>34.1 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.</p> <p>34.2 UNDP may request the Bidder to submit the necessary information or documentation, within a reasonable period, 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.</p> <p>34.3 For the bids that have passed the preliminary examination, UNDP shall check and correct arithmetical errors as follows:</p> <ul style="list-style-type: none"> 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.

	34.4 If the Bidder does not accept the correction of errors made by UNDP, its Bid shall be rejected.
E. AWARD OF CONTRACT	
35. Right to Accept, Reject, Any or All Bids	35.1 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. UNDP shall not be obliged to award the contract to the lowest priced offer.
36. Award Criteria	36.1 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.
37. Debriefing	37.1 In the event that a Bidder is unsuccessful, the Bidder may request for a debriefing from UNDP. The purpose of the debriefing is to discuss the strengths and weaknesses of the Bidder's submission, in order to assist the Bidder in improving its future Bids for UNDP procurement opportunities. The content of other Bids and how they compare to the Bidder's submission shall not be discussed.
38. Right to Vary Requirements at the Time of Award	38.1 At the time of award of Contract, UNDP reserves the right to vary the quantity of goods and/or 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.
39. Contract Signature	39.1 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 to do so may 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 Second highest rated or call for new Bids.
40. Contract Type and General Terms and Conditions	40.1 The types of Contract to be signed and the applicable UNDP Contract General Terms and Conditions, as specified in BDS, can be accessed at http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html
41. Performance Security	41.1 A performance security, if required in the BDS, shall be provided in the amount specified in BDS and form available at https://popp.undp.org/layouts/15/WopiFrame.aspx?sourcedoc=/UNDP POPP DOCUMENT LIBRARY/Public/PSU Solicitation Performance%20Guarantee%20Form.docx&action=default within a maximum of fifteen (15) days of the contract signature by both parties. Where a performance security is required, the receipt of the performance security by UNDP shall be a condition for rendering the contract effective.
42. Bank Guarantee for Advanced Payment	42.1 Except when the interests of UNDP so require, it is UNDP's standard practice to not make advance payment(s) (i.e., payments without having received any outputs). If an advance payment is allowed as per the BDS, and exceeds 20% of the total contract price, or USD 30,000, whichever is less, the Bidder shall submit a Bank Guarantee in the full amount of the advance payment in the form

	<p>available at https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Contract%20Management%20Payment%20and%20Taxes_Advanced%20Payment%20Guarantee%20Form.docx&action=default</p>
43. Liquidated Damages	<p>43.1 If specified in the BDS, UNDP shall apply Liquidated Damages for the damages and/or risks caused to UNDP resulting from the Contractor's delays or breach of its obligations as per Contract.</p>
44. Payment Provisions	<p>44.1 Payment will be made only upon UNDP's acceptance of the goods and/or services performed. The terms of payment shall be within thirty (30) days, after receipt of invoice and certification of acceptance of goods and/or services issued by the proper authority in UNDP with direct supervision of the Contractor. Payment will be effected by bank transfer in the currency of the contract.</p>
45. Vendor Protest	<p>45.1 UNDP's vendor protest procedure provides an opportunity for appeal to those persons or firms not awarded a 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/content/undp/en/home/procurement/business/protest-and-sanctions.html</p>
46. Other Provisions	<p>46.1 In the event that the Bidder offers a lower price to the host Government (e.g. General Services Administration (GSA) of the federal government of the United States of America) for similar goods and/or services, UNDP shall be entitled to the same lower price. The UNDP General Terms and Conditions shall have precedence.</p> <p>46.2 UNDP is entitled to receive the same pricing offered by the same Contractor in contracts with the United Nations and/or its Agencies. The UNDP General Terms and Conditions shall have precedence.</p> <p>46.3 The United Nations has established restrictions on employment of (former) UN staff who have been involved in the procurement process as per bulletin ST/SGB/2006/15 http://www.un.org/en/ga/search/view_doc.asp?symbol=ST/SGB/2006/15&referer</p>

SECTION 3. BID DATA SHEET

The following data for the goods and/or services to be procured shall complement, supplement, or amend the provisions in the Invitation to Bid In the case of a conflict between the Instructions to Bidders, the Bid Data Sheet, and other annexes or references attached to the Bid Data Sheet, the provisions in the Bid Data Sheet shall prevail.

BDS No.	Ref. to Section.2	Data	Specific Instructions / Requirements
1	7	Language of the Bid	English and Portuguese
2		Submitting Bids for Parts or sub-parts of the Schedule of Requirements (partial bids)	Not Allowed
3	20	Alternative Bids	Shall not be considered
4	21	Pre-Bid conference	<p>Will be conducted Time: 11:00am Local Time Maputo Date : August 3rd 2021 Venue : Online Zoom link: https://undp.zoom.us/j/4088570134?pwd=TzlyQnJydVhHUDIyWmdyUEdFM0t6dz09</p> <p>Meeting ID: 408 857 0134 Passcode: 956384</p> <p>The UNDP focal point for the arrangement is:</p> <p>E-mail: procurement.mozambique@undp.org</p> <p>Nonetheless, potential bidders are strongly encouraged to visit the site in order to be eligible for bidding and to familiarize themselves with the location and characteristics of the site where the works are required. The site visit will enable potential bidders to identify all site conditions, such as necessary availability local facilities, accessibility to the site, among others, in order to make a responsive bid accordingly.</p> <p>SITE VISIT IS MANDATORY</p>
5	16	Bid Validity Period	120 days

6	13	Bid Security	<p>Required in the amount of MZN 1,850,000.00</p> <p>Acceptable Forms of Bid Security</p> <ul style="list-style-type: none"> ▪ Bank Guarantee (See Section 8 for template) ▪ Any Bank-issued Check (<i>cheque visado</i>) <p>Bid Security issued by Insurance Company will NOT be accepted.</p> <p>A scanned copy of the bid must be submitted on eTendering Platform. The original bid security must be physically submitted to UNDP Mozambique Country Office within one working day following bid closure time and date.</p>
7	41	Advanced Payment upon signing of contract	<p>Allowed up to a maximum of 20% of contract value to facilitate early mobilization and early start-up of the contract.</p> <p>If the advance payment is equivalent or above Thirty Thousand USD (30,000) USD, the proposer shall submit a Bank Guarantee in the full amount of the advance payment.</p> <p>The advance payment is based on the Contract Price excluding contingences and provisional sum and will be paid in the same currencies and proportions as the Contract Price.</p>
8	42	Liquidated Damages	<p>Will be imposed as follows:</p> <p>One (1%) percent of the total contract amount per week, when delays result in extra cost, or loss of revenue or loss of other benefits to UNDP.</p> <p>Once a deduction of 10 percent has been obtained, UNDP may consider termination of the contract.</p>
9	40	Performance Security	<p>Required in the amount of 10% of the total contractual value. The performance security shall be stipulated in the currency of the contract and shall only be in one of these forms:</p> <ul style="list-style-type: none"> • Bank guarantee issued by a reputable bank and acceptable to UNDP. <p>The Performance Security shall be provided no later than <u>twenty-one (21) days</u> after receipt of the Notice of Award, in the amount specified in the Special Conditions of the Contract and denominated in the types and proportions of the currencies in which the Contract Price is payable.</p>

			<p>The Performance Security shall be valid for a period of 12 months after the initial handing over.</p> <p>The contract retention is five percent (5%) of the total contract amount.</p> <p>The retention duration will be 90 days.</p>
10	12	Currency of Bid	Mozambican Metical
11	31	Deadline for submitting requests for clarifications/ questions	<p>Five (5) working days before the submission deadline.</p> <p>Clarifications related to e-tender submission can be submitted by bidders up to one working day, prior to the submission deadline date and time.</p>
12	31	Contact Details for submitting clarifications/questions	<p>Focal Person in UNDP: Procurement Unit</p> <p>E-mail address: procurement.mozambique@undp.org</p>
13	18, 19 and 21	Manner of Disseminating Supplemental Information to the ITB and responses/clarifications to queries	<p>Posted directly to eTendering</p> <p>Only tenders submitted through eTendering will be evaluated. Tenders submitted otherwise <u>will be disregarded</u>.</p>
14	23	Deadline for Submission	<p>16th August 2021, as indicated in eTendering system.</p> <p>PS: Note that system time zone is in EST/EDT (New York) time zone.</p>
14	22	Allowable Manner of Submitting Bids	<input checked="" type="checkbox"/> e-Tendering
15	22	Bid Submission Address	<p>BU Code: MOZ10</p> <p>Event ID: ITB00921</p>
16	22	Electronic submission (eTendering only) requirements	<ul style="list-style-type: none"> ▪ Format: PDF files only ▪ File names must be maximum 60 characters long and must not contain any letter or special character other than from Latin alphabet/keyboard. ▪ All files must be free of viruses and not corrupted. ▪ Max. File Size per transmission: 50MB
17	25	Date, time and venue for the opening of bid	<p>This is an e-Tendering submission, all bidders who have <u>registered</u> and <u>submitted</u> their bids for this tender will receive an <u>automatic notification of a bid opening report</u>.</p>

18	27, 36	Evaluation Method for the Award of Contract	<p>Lowest priced technically responsive, eligible and qualified bid.</p> <ul style="list-style-type: none"> • UNDP Mozambique will undertake the technical evaluation against the qualification requirements and evaluation criteria listed under Section 4 of the present ITB • UNDP Mozambique expects to award and conclude a maximum of one (1) contracts. • The evaluation is mutually exclusive.
19		Expected date for commencement of Contract	<i>August 1, 2021</i>
20		Maximum expected duration of contract	8 Months
21	35	UNDP will award the contract to:	One Proposer Only
22	39	Type of Contract	<p>Contract for Civil Works</p> <p>http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html</p>
23	39	UNDP Contract Terms and Conditions that will apply	<p>UNDP General Terms and Conditions for Works</p> <p>http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html</p>
24		Other Information Related to the ITB	<p>Minimum Qualifying Criteria (Clauses 9.1 & 9.2)</p> <p>Minimum bidder qualification:</p> <p>• <i>Valid registration certificate to trade in Mozambique as a construction firm, minimum license 6th class (Alvará de Construção Válido, mínimo 6^a Classe. Categoria I - Sub Categoria 1^a a 14^a Categoria II - Sub Categoria 1^a a 5^a</i></p>

SECTION 4. EVALUATION CRITERIA

Preliminary Examination Criteria

Bids will be examined to determine whether they are complete and submitted in accordance with ITB requirements as per below criteria on a Yes/No basis:

- Appropriate signatures
- Power of Attorney
- Minimum Bid documents provided
- Bid Validity
- Bid Security (if required) submitted as per ITB requirements with compliant validity period

Minimum Eligibility and Qualification Criteria

Eligibility and Qualification will be evaluated on a Pass/Fail basis.

If the Bid is submitted as a Joint Venture/Consortium/Association, each member should meet the minimum criteria, unless otherwise specified.

Subject	Criteria	Document Submission requirement
ELIGIBILITY		
Legal Status (Mandatory)	<p>Vendor is a legally registered entity.</p> <p>Bidders are required to fill Form B. Additionally; bidders must also include the following documents:</p> <ul style="list-style-type: none"> - A company profile of at least 5 pages but not exceeding 15 pages. - A proof of registration with the Conservatory of Legal Entities Registration (CREL); or such other entity as may be prescribed by the national regulations. - A valid Certificate of Business Registration - A valid certificate of discharge from the Tax Administration - Valid license/permit to perform construction works in Mozambique. - Valid declaration issued by the institution responsible for the national social security system. 	Form B: Bidder Information Form
Eligibility (Mandatory)	<p>Vendor is not suspended, nor debarred, nor otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization in accordance with ITB clause 3.</p> <p>Bidders are required to fill Form A. Additionally:</p> <ul style="list-style-type: none"> - Bidders must not be debarred from participating in procurement proceeding by any legal authority in Mozambique. 	Form A: Bid Submission Form
Conflict of Interest (Mandatory)	<p>No conflicts of interest in accordance with ITB clause 4.</p> <p>Bidders are required to fill Form A.</p>	Form A: Bid Submission Form
Bankruptcy (Mandatory)	<p>Has not declared bankruptcy, is not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against the vendor that could impair its operations in the foreseeable future.</p> <p>Bidders are required to fill Form A. Additionally: Certificate issued by Ministry of Justice, Constitutional and Religious Affairs of Mozambique.</p>	Form A: Bid Submission Form

Certificates and Licenses (Mandatory)	Bidders are required to fill Form B, including: <ul style="list-style-type: none"> ▪ Official appointment as local representative, if Bidder is submitting a Bid on behalf of an entity located outside the country ▪ Certificate of Business Registration ▪ Valid license/permit to perform construction works in Mozambique. 	Form B: Bidder Information Form
QUALIFICATION		
History of Non-Performing Contracts¹ (Mandatory)	Non-performance of a contract did not occur as a result of contractor default for the last 3 fiscal years (from January 2017 onwards).	Form D: Qualification Form
Litigation History (Mandatory)	No consistent history of court/arbitral award decisions against the Bidder for the last 3 fiscal years (from January 2017 onwards).	Form D: Qualification Form
Previous Experience (Mandatory)	Minimum 5 (five) years of relevant experience. Bidders are required to include a list containing a brief description, date and value of works completed and ongoing (indicate current percentage of completion) over the past five (5) years.	Form D: Qualification Form
	Minimum one (1) project of nature and complexity implemented in Sofala province over the last 5 years. (For JV/Consortium/Association, all Parties cumulatively should meet requirement). -Site Visit is MANDATORY	Form D: Qualification Form
Financial Standing (Mandatory)	The Average annual turnover of at least 40,000,000 Meticaïs (MZN) within the past three (3) years (2017 onwards). (For JV/Consortium/Association, all Parties cumulatively should meet requirement).	Form D: Qualification Form
	Bidder must demonstrate the current soundness of its financial standing and indicate its prospective long-term profitability by submitting audited financial reports covering the past three (3) years 2019-2018-2017. Bidders are required to include their companies audited accounts for the past three (3) years (mandatory) Please do not submit audited financial statements beyond the required years. (For JV/Consortium/Association, all Parties cumulatively should meet requirement).	Form D: Qualification Form

¹ Non-performance, as decided by UNDP, shall include all contracts where (a) non-performance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Non-performance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism. Non-performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted.

	<p>Note: UNDP reserves the right to verify the bidder financial capacity and seek references from the concerned parties & banks on the bidder's financial standing.</p> <p>UNDP reserves the right to reject any whom investigations reveal is not financially capable and/ or has serious financial problems.</p>													
Technical Evaluation	<p>The technical bids will be evaluated on a pass/fail basis for compliance against the following main criteria:</p> <p>Main criterion 1: The required personnel Main criterion 2: The required equipment Main criterion 3: The implementation timetable</p> <p>Bidders need to comply with the requirements under each criterion as listed below to be considered technically responsive.</p> <p>Bidders intending to submit offers are required to present different CVs for personnel and proof of equipment ownership or hire or lease.</p>	Form E: Technical Bid Form												
Criteria 1: Personnel	<p>The bidders are required to submit:</p> <ol style="list-style-type: none"> 1) Duly signed CVs of the below proposed key personnel in the format provided in Form E dated. 2) Copy of the relevant diplomas and/or certificates attesting successful completion of studies. 3) Confirmation of Availability Letters for each proposed CV <p>N.B: The owner(s) and/or General Managers of the contracting company are not allowed to fill in any of the key positions listed below.</p> <table border="1"> <thead> <tr> <th>Staff Position</th><th>Minimum educational qualification</th><th>Minimum years of experience</th></tr> </thead> <tbody> <tr> <td>Team leader (Civil Engineer or Architect)</td><td>BSc in Civil Engineering or Architecture from a recognized university</td><td>7 years of experience in on-site management of construction works</td></tr> <tr> <td>Site Engineer</td><td>BSc in Civil Engineering from a recognized university</td><td>5 years of experience in local management of school construction works or similar works</td></tr> <tr> <td>Electrical Engineer</td><td>BSc in electrical engineering from a recognized university</td><td>5 years of experience in school rehabilitation works or similar works</td></tr> </tbody> </table>	Staff Position	Minimum educational qualification	Minimum years of experience	Team leader (Civil Engineer or Architect)	BSc in Civil Engineering or Architecture from a recognized university	7 years of experience in on-site management of construction works	Site Engineer	BSc in Civil Engineering from a recognized university	5 years of experience in local management of school construction works or similar works	Electrical Engineer	BSc in electrical engineering from a recognized university	5 years of experience in school rehabilitation works or similar works	
Staff Position	Minimum educational qualification	Minimum years of experience												
Team leader (Civil Engineer or Architect)	BSc in Civil Engineering or Architecture from a recognized university	7 years of experience in on-site management of construction works												
Site Engineer	BSc in Civil Engineering from a recognized university	5 years of experience in local management of school construction works or similar works												
Electrical Engineer	BSc in electrical engineering from a recognized university	5 years of experience in school rehabilitation works or similar works												

Criteria 2: Equipment	LIST OF EQUIPMENT	Minimum Required	
	Tipper truck with a minimum capacity of 5 tons	1	
	Concrete mixers with a minimum capacity of 500L	2	
	Concrete vibrators	2	
	Scaffolding pairs	20	
	Electric generator	2	
	Criteria 3: Timetable	The contractor is required to provide a detailed and proportionate Plan to the scheduled 240 calendar days. It shall include the following information: <ul style="list-style-type: none">• A Technical approach and methodology proposed for the execution of works; details on how it intends to organize and execute the works as well as ensure the quality, timelines and warranty period. (mandatory)• A Construction schedule of activities with a maximum of 8 months completion timeframe. The Schedule must list all activities, duration and sequence for the site. The schedule shall include the critical path and the delivery milestones. (mandatory)• A level of effort table in the form of a spreadsheet showings of each personnel and the time allocated for his/her involvement, expressed in number of working days. (mandatory)	
Financial Evaluation	Detailed analysis of the price schedule based on requirements listed in Section 5 and quoted for by the bidders in Form F. Detailed cost and pricing on requirements listed in Section 5 and quoted for by the bidders in Form F – Bill of Quantities. Percentage discount in the event where bidder is awarded two or more bids (Bidders to state in the related BOQ).		Form F: Bill of Quantities

SECTION 5A: SCOPE OF WORKS

REHABILITATION OF PALMEIRAS SECONDARY SCHOOL – BEIRA

1. Scope of works

The main scope of this project is to carry out the renovation works Palmeiras Secondary school in Beira / Sofala province.

The main objective is to rehabilitate the buildings and the fence wall around the school

The Contract Duration is 8 months

The building has been subjected to damages caused by several cyclones which affect some of the main structural elements, mainly the roofs of these buildings

The works include but not limited to the following:

- Removing the damaged roof and replaced with new resilient roof according to the design drawings.
- Repair electrical, water and wastewater elements in all building.
- Carpentry and metal works.
- Plastering and painting.
- The contractor shall contact Beira municipality for proper removing and safe deposition of existing fiber cement sheets (Asbestos)

2. Site Visit.

Site visit is compulsory, the vendors who will not attend the site visit their bids will be dropped.

3. Warranty.

The warranty period is 12 months after the initial handing over

ANNEXES

1. The Specifications in Portuguese- Only for interpretation but the language of submission is English
2. The BoQs
3. The Drawings

ESPECIFICAÇÕES TÉCNICAS / TECHNICAL SPECIFICATION			
	Projecto/Project: Escolas Seguras/Safe Schools		
	Objecto/subject: EDIFÍCIOS/BUILDINGS		
ITEM	DESCRIÇÃO DAS ACTIVIDADES/ ACTIVITY	ESPECIFICAÇÕES TÉCNICAS / TECHNICAL SPECIFICATION	Nº DE DESENHO DE REFERÊNCIA /REFERENT DRAWING No.
1,0	PRELIMINARES/ PRELIMINARY		
1,1	<p>Construção de Palmeira para implantação</p> <p>Construction of Palmeira for the impleme Building.</p>	<p>Construção de Cangalho Refere-se à construção da estrutura linear em madeira, periférica e exterior aos caboucos da fundação para a demarcação dos eixos das fundações e alvenarias definidas pelo projecto. A medição desta actividade será apresentada em metros lineares do perímetro circunscrito as fundações a uma distância de 0,9m da mesma.</p> <p>The construction of Cangalho It refers to the construction of the linear structure in wood, peripheral and external to the foundation shafts for the demarcation of the axes of the foundations and masonry defined by the project. The measurement of this activity is presented in linear meters of the perimeter circumscribed to the foundations at a distance of 0.9m from it.</p>	N/A
1,2	<p>Limpeza geral do terreno, incluindo remoção da camada vegetal para a implantação do Edifício.</p> <p>General cleaning of the land, including removal of the vegetation layer for the building's implantation.</p>	<p>Limpeza do Terreno A limpeza do terreno deverá abranger além da área de construção, 5 m de afastamento, a partir do perímetro do edifício com a remoção dos arbustos, capim, detritos sólidos, entulhos e outros.</p> <p>Clearing terrain/lands Land clearing should cover, in addition to the construction area, 5 m of distance, considered from the perimeter of the building with the removal of shrubs, grass, solid debris, debris and others.</p>	N/A

		<p>A quantificação sera feita em metros quadrados da área estabelecida. The quantification should be done in square meters of the established area.</p>	
2,0	FUNDAÇÕES/FOUNDATIONS		
2,1	<p>Escavação de solos para abertura de caboucos.</p> <p>Excavation of soils for opening caboucos/</p>	<p>Escavação em Caboucos para Fundações dos Edifícios As escavações serão executadas de acordo com os desenhos do projecto ou até onde a Fiscalização o indicar, após exame da escavação, por processos que o Empreiteiro deverá submeter à aprovação da Fiscalização.</p> <p>a) As áreas a escavar são definidas em função do local onde o Edifício será construído, que será orientado pela cravação de estacas para a construção do Cangalho. O Empreiteiro é responsável pela marcação devida dos elementos a implantar e deverá ter a aprovação da Fiscalização; b) A escavação será feita com a profundidade máxima de 0,60 m, seguida de inspecção da Fiscalização para avaliação das condições do solo; c) A profundidade mínima da fundação na camada resistente deverá ser aprovada pela Fiscalização;</p> <p>Para a determinação dos volumes de solos escavados no leito das fundações, são atribuídos para a largura dos caboucos da sapata corrida em função à profundidade. A unidade de medição é em metros cúbicos.</p> <p>Excavation in Caboucos for Building Foundations The excavations should be carried out in accordance with the drawings of the project or as far as the Inspection indicates, after examination of the excavation, by processes that the contractor shall submit to the Inspection for approval.</p> <p>a) The areas to be excavated are defined according to the place where the Building is implanted/existed, which should be guided by the driving of piles for the construction of Cangalho/frame. It is the contractor's responsibility to properly mark the elements to be implemented and the contractor must have the approval of the Inspection. b) The excavation should be carried out with a maximum depth of 0.60 m, followed by inspection by the Inspection to assess the soil conditions. c) The minimum depth of the foundation in the resistant layer should be approved by the Inspection.</p> <p>To determine the volumes of soil excavated in the bed of foundations, they are assigned to the width of the footwell as a function of depth. The unit of measurement is in cubic meters (m3).</p>	5
2,2	<p>Tratamento Contra Termite e formigas sobre o leito das fundações.</p> <p>Treatment Against Termite and ants on the bed of foundations</p>	<p>Tratamento Contra Termite A metodologia utilizada no combate às térmitas consiste na abertura de diversos furos, que permitem a injeção do produto no solo. A introdução do produto nos furos é efectuada através de um pulverizador adequado de modo a que seja possível efectuar a injeção do produto a 40 bar.</p> <p>A área de actuação para a quantificação da actividade realizada é medida em metros quadrados.</p> <p>Termitis Treatment The methodology used to combat termites consists of opening several holes, which allow the injection of the product into the ground. The introduction of the product into the holes is carried out with a suitable sprayer so that it is possible to inject the product at 40 bar. The area of action for the quantification of the activity carried out is measured in square meters (Sq.m).</p>	

2,3	<p>Rega e Compactação do leito das fundações.</p> <p>Watering and compaction of the foundation bed.</p>	<p>Rega e Compactação</p> <p>a) O leito das fundações deverá ser regado e compactado;</p> <p>b) Os produtos da escavação que não forem reutilizados deverão ser removidos do local da construção.</p> <p>A quantificação do trabalho realizado será em metros quadrados, considerando 0,60m de largura da fundação.</p> <p>Watering and Compaction</p> <p>a) The foundation bed must be watered and compacted (may not applicable for rehabilitation of roof)</p> <p>b) Excavation products that are not reused must be removed from the construction site. The quantification of the work performed should be in square meters, considering 0.60m of foundation width.</p>	
2,4	<p>Fornecimento e compactação de pedra 19-38mm para enrocamento no leito das fundações.</p> <p>Supply and compaction of 19-38mm stone for rockfill in the foundation bed.</p>	<p>Enrocamento</p> <p>A execução dos enrocamentos será precedida da preparação do leito, que deverá ser paralelo à superfície da camada superior. Sempre que os terrenos tenham sido removidos abaixo da superfície do leito, deverão ser devidamente compactados, sendo a reposição efectuada, se possível, com solos seleccionados.</p> <p>O enrocamento será constituído por camada de pedra com a dimensão 19-38mm numa espessura de 0,10m aplicada de acordo com os desenhos que deverão ser aprovados pela Fiscalização.</p> <p>Para o seu volume, será considerada uma espessura de 0,10m em todas as situações da obra onde a mesma é aplicada, pela área de aplicação.</p> <p>Rockfill</p> <p>The execution of rockfills should be preceded by the preparation of the bed, which should be parallel to the surface of the upper layer. Whenever the land has been removed below the surface of the bed, it must be duly compacted, with the replacement being carried out, if possible, with selected soils.</p> <p>The rockfill should consist of a layer of stone with a dimension of 19-38mm in a thickness of 0.10m applied in accordance with the designed parts, which must be approved by the Inspection.</p> <p>For its volume, a thickness of 0.10m should be considered in all situations of the work where it is applied, by application area.</p>	10,11
2,5	<p>Fornecimento e colocação do Aço A400 em Sapata Corrida de fundação.</p> <p>Supply and laying of A400 Steel in Sapata Corrida foundation.</p>	<p>Características do Aço para Armaduras</p> <p>As características a satisfazer pelo aço para as armaduras de betão armado devem estar de acordo com “Regulamento de Estruturas de Betão Armado e Pré-Esforçado (REBAPE</p> <p>O aço das armaduras para betão armado nervurado, de textura homogénea, de grão fino, não quebradiço e sem revestimento de zinco, pintura, alcatroagem, argila, óleo, ferrugem solta, gorduras e outras matérias estranhas. Quando esta situação se verificar, as armaduras deverão ser passadas energicamente por escova metálica.</p>	17

		<p>O aço em varão a utilizar para armaduras de betão armado será da classe A400, do tipo e diâmetro indicados nos desenhos do presente projecto.</p> <p>Characteristic of Armor Steel</p> <p>The characteristics to be satisfied by steel for reinforced concrete reinforcements must be in accordance with the “Regulation of Reinforced and Prestressed Concrete Structures (REBAPE)”.</p> <p>Steel reinforcement for ribbed reinforced concrete, homogeneous texture, fine-grained, non-brittle and free from zinc coating, paint, tar, clay, oil, loose rust, grease and other foreign matter. When this situation occurs, the reinforcements must be energetically passed through a metallic brush. The rebar steel to be used for reinforced concrete reinforcement should be of class A400, type and diameter indicated in the drawings of this project.</p> <p>Disposições sobre a Execução das Armaduras</p> <p>A dobração, colocação, amarrações e emendas das armaduras devem cumprir as disposições do Regulamento sobre Estruturas de Betão Armado e Pré- Esforçado (REBAPE).</p> <p>As armaduras devem ser colocadas e mantidas rigorosamente nas posições indicadas nos desenhos do projecto, com as tolerâncias especificadas no REBAPE, nomeadamente no que se refere aos artigos 149º e 150</p> <p>A cobertura definida deve ser de 3cm para edifícios localizados ao longo da faixa costeira e 2,5cm para as outras áreas. As distâncias entre armaduras devem ser as previstas nos desenhos do projecto, respeitando o estabelecido para o efeito na REBAPE, em particular nos artigos 77, 149 e 151.</p> <p>As ligações dos varões que compõem as armaduras serão conseguidas através de ligação de arame de aço recozido. O arame de aço recozido possui qualidades mecânicas que garantem a sua utilização e manuseio em operações que exigem normalmente dobras e torções. As extremidades das ataduras de arame deverão ser dobradas de modo que não atravessem a camada de revestimento das armaduras</p> <p>As posições correctas das armaduras serão garantidas por espaçadores, suportes e calços, juntamente com as ligações entre armaduras. Em geral, os espaçadores, suportes e calços serão de betão, com a mesma resistência e durabilidade que o betão da obra. Poderão ser usados espaçadores e suportes metálicos desde que sejam aprovados pela Fiscalização e não estejam ligados às cofragens. Os calços de betão, para montar as armaduras afastadas dos moldes, serão equipados com arames de fixação. A dobração de varões será executada a frio e conforme especificado no REBAPE, especialmente nos artigos 79º e 155º. A dobração será sempre efectuada lentamente e com a utilização de um mandril. As emendas serão executadas, em geral, por sobreposição, respeitando as especificações, para o efeito, no REBAPE, especialmente nos artigos 84º, 85º, e 157º. Segundo as características do Aço adoptado, os comprimentos de emenda dos varões no caso de não estarem representada nos desenhos serão de:</p> <ul style="list-style-type: none"> - Ø6: 0,25m - Ø8: 0,32m - Ø10: 0,40m - Ø12: 0,48m 	
--	--	--	--

		<p>O critério estabelecido para a quantificação das armaduras foi a medição do comprimento dos elementos em betão, convertidos em quilogramas.</p> <p>Provision on the Execution of Armor</p> <p>The folding, placement, lashings and splicing of reinforcements must comply with the provisions of the Regulation on Reinforced and Prestressed Concrete Structures (REBAPE).</p> <p>The reinforcements must be placed and maintained strictly in the positions indicated in the drawings of the project, with the tolerances specified in REBAPE, namely with regard to articles 149 and 150°.</p> <p>The defined coverage should be 3cm for buildings located along the coastal strip and 2.5cm for the other areas. The distances between reinforcements should be those foreseen in the drawings of the project, respecting what is established for this purpose in REBAPE, in particular articles 77, 149 and 151.</p> <p>The connections of the bars that make up the reinforcements should be achieved by bindings of annealed steel wire. The annealed steel wire has mechanical qualities that guarantee its use and handling in operations that normally require bending and twisting. The ends of the wire bindings should be bent so that they do not pass through the reinforcement lining layer.</p> <p>The correct positions of the reinforcements should be guaranteed by spacers, supports and shims, together with the connections between reinforcements. In general, the spacers, supports and wedges should be made of concrete, with the same strength and durability as the work's concrete. Spacers and metallic supports may be used as long as they are approved by the Inspection and do not contact the formwork. The concrete shims, to assemble the reinforcements away from the molds, should be equipped with fixing wires.</p> <p>The bending of bars should be carried out cold and as specified in the REBAPE, in particular in articles 79° and 155°. The bending should always be carried out slowly and with the use of a mandrel.</p> <p>The amendments should be executed, in general, by overlapping, respecting what is specified for this purpose in the REBAPE, especially in articles 84, 85, and 157. According to the characteristics of the adopted Steel, the lengths of seaming of the bars in the case of not being represented in the drawn pieces should be:</p> <ul style="list-style-type: none"> - Ø6: 0.25m - Ø8: 0.32m - Ø10: 0.40m - Ø12: 0.48m 	
--	--	--	--

		The established criterion for the quantification of reinforcement was the measurement of the length of the concrete elements, converted into kilograms.																																							
2,6	<p>Fornecimento e aplicação do Betão B25 para Sapata Corrida no leito das fundações.</p> <p>Supply and application of B25 Concrete for Running Shoes in the bed of foundations</p>	<p>Condições Gerais do Betão</p> <p>Os meios e técnicas a utilizar no fabrico dos diversos betões da obra serão estabelecidos pelo Empreiteiro, respeitando os requisitos destas Especificações Técnicas e da NP EN 206- 1:2007, em particular a secção 9.</p> <p>Os traços do betão foram seleccionados de acordo com o pedido de cada um dos elementos, e serão doseados de acordo com a tabela abaixo:</p> <table><tr><th rowspan="2">Elementos</th><th rowspan="2">Traço em Volume</th><th colspan="6">Por m3 de Betão</th></tr><tr><th>Cimento (Kg)</th><th>Areia Seca (l)</th><th>Areia Húmida (l)</th><th>Brita 1 (l) (1,8-12,5mm)</th><th>Brita 2 (l) (12,5-25mm)</th><th>Água (l)</th></tr><tr><td>Sapatas, Pilares e Vigas (B25)</td><td>1 : 2,5 : 3</td><td>319</td><td>562</td><td>719</td><td>337</td><td>337</td><td>207</td></tr><tr><td>Laje de Pavimento, Vergas (B20)</td><td>1 : 2,5 : 5</td><td>246</td><td>435</td><td>557</td><td>435</td><td>435</td><td>195</td></tr><tr><td>Betão de Limpeza (B15)</td><td>1 : 3 : 6</td><td>208</td><td>441</td><td>564</td><td>441</td><td>441</td><td>198</td></tr></table> <p>Para o seu fabrico, o Empreiteiro deverá dispor de meios que permitam controlar a dosagem dos componentes.</p> <p>O tempo de trabalho das betoneiras em cada amassadora não deverá ser inferior a 3 minutos, nem superior ao triplo do tempo necessário para que a mistura feita a seco apareça com aspecto uniforme, salvo se as características especiais das betoneiras sugiram outro tempo.</p> <p>A quantidade de água deverá ser frequentemente corrigida, de acordo com as variações de humidade dos agregados, para que a relação água-cimento seja a recomendada nos estudos de qualidade do betão.</p> <p>O betão deve ser aplicado assim que é fabricado, para o qual apenas deve ser feito o suficiente para cada betonagem, e o betão que tenha sido fabricado durante mais de 1 hora não deve ser utilizado. Todo o betão será vibrado por meios mecânicos, tendo-se o cuidado de não o tocar na armadura para que a vibração não se transmita ao betão que já iniciou o processo de colocação.</p> <p>Para efeitos de medição, serão considerados os volumes dos elementos, e o custo final por elemento deve incluir, quando indicado, a respectiva cofragem e escoramentos.</p> <p>A betonagem de sapatas, vigas, vergas e das lajes térreas será contínua, admitindo-se interrupções apenas nos casos em que a Fiscalização o autorize. Passadas 2 a 5 horas do fim da betonagem, as superfícies coincidentes com as secções da base dos elementos estruturais em elevação serão devidamente limpas e higienizadas, a fim de se obter posteriormente uma boa aderência.</p>	Elementos	Traço em Volume	Por m3 de Betão						Cimento (Kg)	Areia Seca (l)	Areia Húmida (l)	Brita 1 (l) (1,8-12,5mm)	Brita 2 (l) (12,5-25mm)	Água (l)	Sapatas, Pilares e Vigas (B25)	1 : 2,5 : 3	319	562	719	337	337	207	Laje de Pavimento, Vergas (B20)	1 : 2,5 : 5	246	435	557	435	435	195	Betão de Limpeza (B15)	1 : 3 : 6	208	441	564	441	441	198	5, 11
Elementos	Traço em Volume	Por m3 de Betão																																							
		Cimento (Kg)	Areia Seca (l)	Areia Húmida (l)	Brita 1 (l) (1,8-12,5mm)	Brita 2 (l) (12,5-25mm)	Água (l)																																		
Sapatas, Pilares e Vigas (B25)	1 : 2,5 : 3	319	562	719	337	337	207																																		
Laje de Pavimento, Vergas (B20)	1 : 2,5 : 5	246	435	557	435	435	195																																		
Betão de Limpeza (B15)	1 : 3 : 6	208	441	564	441	441	198																																		

Em caso de interrupção da betonagem, por qualquer motivo, a sua continuidade deve respeitar a seguinte condição: a ligação entre os betões de idades diferentes deve ser assegurada pela preparação adequada, perfurando a superfície e deixando-a com uma inclinação de 45° para proporcionar a sua melhor aderência.
O betão deverá ser produzido por meios mecânicos.

General Concrete Conditions:

The means and techniques to be used in the manufacture of the various concretes for the work should be established by the Contractor, while respecting the requirements of this Technical Specification and of NP EN 206-1:2007, in particular section 9.

The concrete traces were selected according to the request of each of the elements, and should be dosed according to the table below:

Elementos/Elements	Traçoe m Volum e/ Volum e Trace	Por m3 de Betão/per m3 of concrete					
		Cimen to (Kg) Cement (Kg)	Areia Seca/dry sand (l)	Areia Humida/wet sand (l)	Brita/aggregate 1 (l) (1,8-12,5mm)	Brita/aggregate 2 (l) (12,5-25mm)	Água/water (l)
Sapatas, Pilares e Vigas (B25) Shoes, Pillars and Beams (B25)	1: 2,5 : 3	319	562	719	337	337	207
Laje de Pavimento, Vergas (B20) FloorSlab	1: 2,5: 5	246	435	557	435	435	195
Betão de Limpeza (B15) CleaningConcrete (B15)	1:3: 6	208	441	564	441	441	198

For its manufacture, the Contractor must have the means to control the dosage of the components.

The working time of the concrete mixers in each mix should not be less than 3 minutes, nor more than triple the time necessary for the dry mix to appear with a uniform appearance, unless the special characteristics of the mixers suggest another time.

The amount of water must be frequently corrected, according to the variations in the humidity of the aggregates, so that the water-cement ratio is the one recommended in studies on the quality of concrete.

		<p>Concrete should be applied as soon as it is manufactured, for which only enough should be done for each concreting, and concrete that has been manufactured for more than 1 hour should not be used.</p> <p>All the concrete must be vibrated by mechanical means, taking care not to touch the reinforcement so that the vibration does not transmit to the concrete that has already started the setting process.</p> <p>For measurement purposes, the volumes of the elements should be considered, and the final cost per item should include, when indicated, the respective formwork and shoring.</p> <p>The concreting of footings, beams, lintels, and ground slabs should be continuous, and interruptions should be allowed only in cases authorized by the Inspection.</p> <p>After 2 to 5 hours from the end of the concreting, the surfaces coincident with the sections of the base of the structural elements in elevation should be properly cleaned and sanitized in order to later obtain a good adhesion.</p> <p>In case of interruption of the concreting, for any reason, its continuity must comply with the following condition: the connection between concretes of different ages must be ensured by proper preparation, perforating the surface and leaving it with a 45° inclination to provide the your best grip.</p> <p>Concrete must be produced by mechanical means.</p> <p>Betão B25 em Sapatas Corridas As sapatas de fundação serão executadas, salvo outras instruções da Fiscalização, por processos tradicionais, observando-se o que estiver indicado no Caderno de Encargos e desenhos de construção.</p> <p>As sapatas de fundação serão betonadas deixando embutidas nelas as armaduras dos elementos estruturais de elevação a que se referem. A betonagem da sapata corrida deverá ser contínua salvo se houver algum contratempo que justifique que o mesmo aconteça. Esta situação deverá ser coordenada e aprovada pela Fiscalização.</p> <p>Da superfície superior do betão de regularização ou de selagem será retirada toda a goma depositada até aparecer a parte limpa do betão, e só depois se colocará a armadura.</p> <p>Para efeitos de quantificação da actividade realizada, serão medidos os volumes considerados nos desenhos.</p> <p>Não será considerada a cofragem deste elemento, conforme descrito no item 2,1.B25 Concrete in Running Shoes: The foundation footings should be executed, except for other instructions from the Inspection, by traditional processes, observing what is indicated in the Specifications and construction drawings.</p> <p>The foundation slabs should be concreted leaving embedded in them the reinforcement of the structural lifting elements to which they relate.</p>	
--	--	---	--

		<p>The concreting of the running shoe must be continued unless there is any setback that justifies the same. This situation must be coordinated and approved by the Inspection.</p> <p>All the deposited gum should be removed from the upper surface of the leveling or sealing concrete until the clean part of the concrete appears, and only then should the reinforcement be placed.</p> <p>For the purpose of quantifying the activity carried out, the volumes considered in the designed pieces should be measured.</p> <p>The formwork of this element should not be considered, as described in item 2.1.</p>	
2,7	<p>Fornecimento e colocação de Blocos amaciados de 0,20m sobre as sapatas corridas até a viga de pavimento.</p> <p>Supply and laying of softened blocks 0.20m on the running shoes up to the pavement beam.</p>	<p>Alvenaria de Blocos Sólidos de Cimento e Areia</p> <p>a) A alvenaria sobre as sapatas corridas será constituída por blocos de cimento e areia de 200x200x400mm, de acordo com os desenhos do projecto;</p> <p>b) Os blocos de fundação deverão ser enchidos com betão pobre numa proporção de 1:4:8;</p> <p>c) Os blocos deverão cumprir os requisitos regulamentares aplicáveis, e também:</p> <ul style="list-style-type: none"> - ter uma textura uniforme; - apresentar uma resistência mínima de 4,5Mpa ao traço 1:1:6; - ser isentos de quaisquer elementos estranhos; - ter formas e dimensões regulares e uniformes; - ser de cor uniforme; - ter absorção de água em 24 horas inferior a 1/5 do seu volume total. <p>d) Antes da sua aplicação em obra, os blocos deverão ser extensivamente regados ou imersos em água durante os primeiros sete dias de sua existência. A Fiscalização determinará previamente quais os blocos que, pelo seu aspecto visual e características, poderão ser utilizados na obra;</p> <p>e) A argamassa de colocação a utilizar deverá ter 320 kg de cimento por metro cúbico de argamassa normal (traço em volume de 1:4);</p> <p>f) A espessura da argamassa nos leitos e juntas não deve exceder 10mm.</p> <p>Masonry of Solid Blocks of Cement and Sand</p> <p>a) The masonry on the running shoes should consist of 200x200x400mm blocks of cement and sand, in accordance with the project drawings.</p> <p>b) The foundation blocks must be filled with lean concrete in a ratio of 1:4:8.</p> <p>c) The blocks must meet the applicable regulatory requirements, and also:</p> <ul style="list-style-type: none"> - have a uniform texture. - have a minimum resistance of 4.5Mpa to the 1:1:6 trace. - be free of any foreign bodies. - have regular and uniform shapes and dimensions. - be uniform in color. - have water absorption in 24 hours less than 1/5 of their full volume. <p>d) Before being applied on site, the blocks must be extensively watered or immersed in water during the first seven days of their existence. The Inspection should determine in advance which blocks, due to their visual appearance and characteristics, may be used in the works.</p>	10, 11

		<p>e) The laying mortar to be used must have 320 kg of normal portland cement per cubic meter of mortar (trace in volume of 1:4).</p> <p>f) The thickness of the mortar on the beds and joints should not exceed 10mm.</p>	
3,0	PAVIMENTO DE BETÃO/CONCRETE FLOORING		
3,1	<p>Rega e Compactação de Solos em Caixa de Pavimento.</p> <p>Soil Watering and Compaction in Floor Box.</p>	<p>Rega e Compactação em Caixas de Pavimento</p> <p>A compactação da caixa deverá ser antecedida de rega em quantidade necessária para obter um solo que permita que a compactação seja efectuada por meios manuais ou mecânicos. A Fiscalização pode reservar-se o direito de exigir a aprovação prévia da camada de fundação compactada antes da colocação do enrocamento;</p> <p>A medição será feita em metros quadrados da caixa de pavimento.</p> <p>Watering and Compaction in Floor Boxes</p> <p>The compaction of the box must be preceded by watering in the amount necessary to obtain a soil that allows compaction to be carried out by manual or mechanical means. The Inspection may reserve the right to require prior approval of the compacted foundation layer prior to the laying of the rockfill.</p> <p>The measurement should be in square meters of the floor box.</p>	10, 11
3,2	<p>Tratamento Contra Termite e formigas sobre os solos das caixas de pavimento.</p> <p>Treatment Against Termite and ants on the flooring box floors</p>	<p>Tratamento Contra Termite (Ver 2,2)</p> <p>O tratamento deverá ser realizado sobre os solos das caixas de pavimento, após o aterro e compactação.</p> <p>Termitis Treatment (See 2.2).</p> <p>The treatment should be carried out on the soils of the pavement boxes, after filling and compacting.</p>	10, 11
3,3	<p>Fornecimento e compactação de pedra de 19-38mm para Enrocamento em Caixas de Pavimento.</p> <p>Supply and compaction of 19-38mm stone for Rockfill in Floor Boxes.</p>	<p>Enrocamento (Ver 2,4)</p> <p>Rockfill (See 2.4)</p>	10, 11
3,4	<p>Fornecimento e aplicação de barreira à prova de água de 250 microns no enrocamento.</p> <p>Supply and application of waterproofing screen 250 microns on the rockfill</p>	<p>Tela Impermeabilizante</p> <p>Deverá ser aplicada uma tela com a resistência de 250 microns sobre o enrocamento com juntas conforme indicadas pelo fabricante.</p> <p>O material deverá ser aplicado sobre o enrocamento das caixas de pavimento e envolver a respectiva viga de pavimento.</p> <p>A medição é em metros quadrados no qual é considerado o comprimento e a largura do contorno correspondente.</p> <p>Waterproofing Screen</p> <p>A screen with a resistance of 250 microns must be applied over the rockfill with joints as indicated by the manufacturer.</p> <p>The material should be applied over the rockfill of the pavement boxes and surrounding the respective pavement beam.</p>	10, 11

		The measurement is in square meters (m) in which the corresponding contour length and width are considered.	
3,5	Fornecimento e colocação do Aço A400 em Viga de Pavimento. Supply and laying of A400 Steel in Pavement Beam	Característica do Aço para Armaduras (Ver 2,5) Disposições sobre a Execução das Armaduras (2,5) Characteristic of Armor Steel (See 2.5) Provision on the Execution of Armor (2.5)	17
3,6	Fornecimento e aplicação do Betão B25 em Viga de Pavimento incluindo Cofragem. Supply and application of B25 Concrete in Floor Beam including Formwork.	Condições Gerais do Betão (ver 2,6) Betão B25 em Vigas de Pavimento Por viga de pavimento, entende-se como uma viga de equilíbrio ao nível do Pavimento. A viga sera parcialmente embutida na laje de pavimento e estara assente sobre blocos de fundação esmagados. As vigas de Pavimento serão executadas, a princípio, por processos tradicionais, observando-se o que estiver indicado nestas Especificações Técnicas. No preço deste item, deve-se considerar a cofragem lateral ao longo do seu comprimento. A betonagem será contínua, admitindo-se interrupções apenas nos casos em que a Fiscalização as autorize. General Concrete Conditions (see 2.6) B25 Concrete in Floor Beams By floor beam, it is understood as a balance beam at the level of the floor. The beam should be partially embedded in the floor slab and should rest on crushed foundation blocks. The floor beams should be executed, in principle, by traditional processes, observing what is indicated in this Technical Specification. In the price of this item, the side formwork along its length should be considered. Concreting should be continuous, with interruptions being allowed only in cases where the Inspection authorizes it Cofragem A cofragem será colocada nas faces laterais da viga; A armadura deverá estar posicionada por forma a manter a cobertura; Formwork The formwork should be placed on the lateral faces of the beam; The reinforcement must be positioned in such a way as to maintain the covering.	10, 11

		<p>Condições Gerais da Cofragem</p> <p>As chapas de cofragem deverão obedecer as seguintes condições:</p> <ul style="list-style-type: none"> - As madeiras a serem utilizadas, deverão ser de fibras rectas e unidas, sem nós viciosos nem fendas ou falhas, manchas, podridões resultantes de ataques de fungos ou insectos e de quaisquer sinais de infestação por xilófagos que comprometam a sua resistência; - As madeiras serão de pinho, com uma aresta afiada e perfeitamente endireitada, que deve ser fixada pela Fiscalização; - As tábuas para moldes devem ter uma espessura de pelo menos 2,6 cm e devem ser aplainadas, retiradas de linha e a meia madeira. - Os calços ou cunhas a serem aplicados devem ser de madeira dura. <p>Formwork General Conditions</p> <p>The cogage plates must meet the following conditions:</p> <ul style="list-style-type: none"> - The woods to be used should be straight and united fibers, without vicious knots, free from cracks or flaws, stains, rot resulting from attacks by fungi or insects and any signs of infestation by xylophages that compromise their resistance. - The wood should be pine, with a sharp edge and perfectly straightened, allowing, in cases to be fixed by the Inspection. - The mold boards must have a thickness of not less than 2.6 cm and sould be planed, taken out of line and half wood. - The wedges or wedges to be applied should be of hard wood. 	
3,7	<p>Fornecimento e aplicação de rede solar.</p> <p>Supply and application of meshsol/wire sun mess.</p>	<p>Malha de arame</p> <p>Deverá ser aplicada a rede solar com a referência AR30 100x300x3mm lisa sobre o enrocamento, abrangendo a área da caixa do pavimento.</p> <p>A medição é em metros quadrados nos quais são considerados o comprimento e a largura do contorno correspondente.</p> <p>Wire mesh</p> <p>The sun mesh should be applied with the AR30 reference 100x300x3mm smooth over the rockfill, covering the area of the floor box.</p> <p>The measurement is in square meters in which the corresponding contour length and width are considered</p>	N/A
3,8	<p>Fornecimento aplicaçãodo Betão B25 nas caixas de Pavimentos.</p> <p>Supply application of Concrete B25 in Floor boxes</p>	<p>Condições Gerais do Betão (ver 2,6)</p> <p>Betão B25 em Caixas e Pavimento</p> <p>·</p> <p>É considerado como o apoio para o acabamento de pavimentos ao nível do solo, conforme previsto nos detalhes desenhados.</p> <p>O piso térreo será construído sobre o enrocamento, e terá a constituição indicada nos desenhos do projecto. Após a execução do enrocamento sobre o solo devidamente compactado, seguir-se-á a aplicação de uma camada à prova de</p>	10, 11

		<p>água de 250 microns e por fim a camada de betão com uma espessura de 0,10m nos pavimentos interiores. Nas varandas, a espessura a considerar será de 8cm e deverá ser baseada nos desenhos.</p> <p>Os seus volumes são medidos em função a sua área delimitada pela viga de pavimento, em compartimentos fechados ou áreas expostas quando existem caleiras, multiplicados pela altura especificada. Em locais tais como varandas a sua área e delimitada pelo perímetro das arestas.</p> <p>General Concrete Conditions (see 2.6) B25 Concrete in Boxes and Pavement</p> <p>It is understood as the support for finishing floors at ground level, as provided for in the details drawn.</p> <p>The ground floor should be built over the rockfill and should have the constitution indicated in the drawn pieces. After carrying out the rockfill on the properly compacted soil, it should be followed by the application of a waterproofing screen 250 microns and finally a layer of concrete with a thickness of 0.10m on the interior floors. On the balconies, the thickness to be considered shall be 8cm and should be based on the drawings.</p> <p>Their volumes are measured as a function of their area delimited by the floor beam, in closed compartments or exposed areas when there are curbs, multiplied by the specified height. In places such as balconies their area is delimited by the perimeter of the edges.</p>	
3,9	<p>Execução de Rampas de acesso com 3,3 m de comprimento, 1,7 m de largura e 0,20 m de altura, garantindo 6% de inclinação.</p> <p>Execution of access ramps with 3.3 m in length, 1.7 m in width and 0.20 m in height, guaranteeing inclination.</p>	<p>As rampas deverão ser executadas sob as seguintes condições:</p> <ul style="list-style-type: none"> a) Abertura de Caboucos a uma profundidade de 0,20m e 0,30 de largura ao longo do percurso onde devem ser recebidos os blocos amolecidos de delimitação; b) Rega e compactação do leito de fundação; c) Fornecimento e aplicação da pedra de enrocamento 19-30mm sobre o leito; d) Fornecimento e colocação do betão de limpeza; e) Fornecimento e colocação de blocos amolecidos sobre o betão de limpeza; f) Aterro, rega e compactação da caixa a pavimentar; g) Fornecimento e aplicação de pedra de enrocamento 19-38mm sobre a caixa de pavimento; h) Fornecimento e colocação de betão B20 sobre o um pavimento com uma espessura de 8cm; <p>A rampa deverá ter uma inclinação de 6%, tendo sido considerada a dimensão de 3,3m de comprimento e 1,7m de largura.</p> <p>A medição será em metros quadrados, dependendo das dimensões acima referidas e respectivos trabalhos contemplados.</p> <p>Ramps must be performed under the following conditions:</p> <ul style="list-style-type: none"> a) Opening of Caboucos at a depth of 0.20 m and 0.30 in width along the route where the softened delimitation blocks should be received. b) Watering and compaction of the foundation bed. c) Supply and application of rockfill stone 19-30mm on the bed. 	N/A

		<p>d) Supply and laying of cleaning concrete. e) Supply and laying of softened blocks on the cleaning concrete. f) Landfill, irrigation and compaction of the box to be paved. g) Supply and application of rockfill stone 19-38mm on the pavement box. h) Supply and laying of B20 concrete on a pavement with a thickness of 8cm.</p> <p>The ramp should have an inclination of 6%, having been considered a dimension of 3.3m in length and 1.7m in width.</p> <p>The measurement should be in square meters depending on the dimensions mentioned above and the respective works contemplated.</p>	
4,0	ALVENARIA/ MASONRY		
4,1	<p>Fornecimento e colocação de blocos ocos nas paredes de 0,20m</p> <p>Supply and installation of 0.20m hollow blocks on walls.</p>	<p>Alvenaria de Blocos de Cimento e Areia</p> <p>a) As paredes de alvenaria serão constituídas por blocos de cimento e areia de 100x200x400, 150x200x400, 200x200x400mm; b) Os blocos serão fundidos para as paredes exteriores, interiores e de empena; c) Os blocos deverão cumprir os requisitos regulamentares aplicáveis, e também: - ter uma textura uniforme; - apresentar uma resistência de 4,5Mpa ao traço 1:1:6; - ser isento de quaisquer corpos estranhos; - ter formas e dimensões regulares e uniformes; - ser de cor uniforme; - ter absorção de água em 24 horas inferior a 1/5 do seu volume total. d) Antes de serem aplicados no local, os blocos devem ser amplamente regados ou imersos em água durante os primeiros sete dias de sua existência. A Fiscalização determinará previamente quais os blocos que, pelo seu aspecto visual e características, poderão ser utilizados nos trabalhos; e) A argamassa de colocação a ser utilizada deverá ter 320 kg de cimento por metro cúbico de argamassa normal (traço em volume de 1:4); f) A espessura da argamassa nos leitos e juntas não deve exceder 10mm.</p> <p>A quantificação do trabalho realizado será em metros quadrados da área aplicada.</p> <p>Cement and Sand Block Masonry a) The masonry walls should consist of cement and sand blocks of 100x200x400, 150x200x400, 200x200x400mm. b) The blocks should be cast for the exterior, interior and gable walls. c) The blocks must meet the applicable regulatory requirements, and also: - have a uniform texture. have a resistance of 4.5Mpa to the 1:1:6 trace.</p> <p>be free of any foreign bodies. have regular and uniform shapes and dimensions. be uniform in color. have water absorption in 24 hours less than 1/5 of their full volume.</p>	1, 2
4,2	<p>Fornecimento e colocação de blocos ocos nas paredes internas de 0,15m.</p> <p>Supply and installation of hollow blocks on interior walls of 0.15m.</p>		1, 2
4,3	<p>Fornecimento e colocação de blocos ocos nas paredes internas de 0,10m.</p> <p>Supply and installation of hollow blocks on interior walls of 0.10m.</p>		1, 2

		<p>d) Before being applied on site, the blocks must be extensively watered or immersed in water during the first seven days of their existence. The Inspection shall determine in advance which blocks, due to their visual appearance and characteristics, may be used in the works.</p> <p>e) The laying mortar to be used must have 320 kg of normal portland cement per cubic meter of mortar (trace in volume of 1:4).</p> <p>f) The thickness of the mortar on the beds and joints should not exceed 10mm.</p> <p>The quantification of work performed should be in square meters of the applied area.</p>	
4,4	<p>Fornecimento e colocação de grelhas de b</p> <p>Supply and installation of concrete grids.</p>	<p>Grelhas</p> <p>a) As grelhas deverão ter a dimensão de 100x200x200;</p> <p>b) As grelhas serão instaladas colocadas no Sanitário;</p> <p>c) Deverão ser em argamassa de cimento e areia com uma proporção de 1:1:6;</p> <p>d) Os moldes da grelha serão metálicos e os elementos constituintes serão moldados pelo serralheiro, de modo que não necessitem de ser posteriormente retocados;</p> <p>e) A argamassa de colocação será de 10mm para a linha 1:4;</p> <p>f) O Empreiteiro começará por fazer uma grelha padrão, como protótipo; só após aprovação pelo Conselho Fiscal é que os outros podem ser executados;</p> <p>Grills</p> <p>a) The grids must have a dimension of 100x200x200.</p> <p>b) The grids should be installed in the Sanitary.</p> <p>c) They must be in cement and sand mortar with a 1:1:6 ratio.</p> <p>d) The grid molds should be metallic, and the constituent elements should be molded by the locksmith, so that they do not need to be retouched later.</p> <p>e) The laying mortar should be 10mm to the 1:4 line.</p> <p>f) The Contractor should start by making a standard grid, as a prototype; only after approval by the Supervisory Board can the others be carried out.</p>	N/A
5,0	ESTRUTURA/ STRUCTURE		
5,1	<p>Fornecimento e colocação do Aço A400 em Viga de Coroamento.</p> <p>Supply and laying of A400 Steel in Crowning Beam.</p>	<p>Característica do Aço para Armaduras (Ver item 2,5)</p> <p>Disposições sobre a Execução das Armaduras (Ver item 2,5)</p> <p>Characteristic of Armor Steel (See item 2.5)</p> <p>Provision on the Execution of Armors (See item 2.5)</p>	17
5,2	<p>Fornecimento e colocação do Aço A400 em Pilares.</p> <p>Supply and laying of A400 Steel in Pillars.</p>	<p>Característica do Aço para Armaduras (Ver item 2,5)</p> <p>Disposições sobre a Execução das Armaduras (Ver item 2,5)</p> <p>Characteristic of Armor Steel (See item 2.5)</p> <p>Provision on the Execution of Armors (See item 2.5)</p>	17
5,3	<p>Fornecimento e colocação do Aço A400 em Vergas</p> <p>Supply and laying of A400 Steel in Vergas</p>	<p>Característica do Aço para Armaduras (Ver item 2,5)</p> <p>Disposições sobre a Execução das Armaduras (Ver item 2,5)</p> <p>Characteristic of Armor Steel (See item 2.5)</p>	17

		Provision on the Execution of Armors (See item 2.5)	
5,4	<p>Fornecimento e aplicação do Betão B25 em Viga de Coroamento incluindo Cofragem.</p> <p>Supply and application of B25 Concrete in Crowning Beam including Formwork</p>	<p>Condições Gerais do Betão (ver 2,6)</p> <p>General Concrete Conditions (see 2.6)</p>	9, 10
5,5	<p>Fornecimento e aplicação do Betão B25 em Pilares incluindo Cofragem.</p> <p>Supply and application of B25 Concrete in Pillars including Formwork.</p>	<p>Condições Gerais do Betão (ver 2,6)</p> <p>Betão em Pilares A betonagem dos pilares será efectuada de forma contínua, podendo ser interrompida a cada nível, nomeadamente da fundação ao rés-do-chão e rés-do-chão a viga de coroamento. Cada troço dos pilares, entre pisos, será betonado de forma contínua. A betonagem de cada troço dos pilares deverá ser precedida pela montagem completa das armaduras transversais em, pelo menos, 0,50m acima da junta de betonagem ou do limite superior da cofragem. O betão deve ser regularmente distribuído e compactado por camadas horizontais de espessura, em geral, não excedendo 0,30m.</p> <p>O Empreiteiro compromete-se a apresentar à aprovação da Fiscalização o plano de betonagem, de controlo da verticalidade e da direcção dos pilares indicando concretamente todo o seu processamento, paralizações, tempo de execução, plano de verificações e equipamento a utilizar, etc. Não serão permitidas juntas de betonagem horizontais em pilares.</p> <p>A quantificação do volume é considerada a sua altura total iniciando pelo topo da sapata sem interrupção de outros elementos que o atravessam multiplicado pela sua secção.</p> <p>Deverá ser incluída no custo desta actividade a cofragem a ser utilizada.</p> <p>Cofragem A cofragem será disposta nas faces do Pilar; A armadura devesa estar posicionada por forma a manter a cobertura;</p> <p>Condições Gerais da Cofragem (ver 3,6)</p> <p>General Concrete Conditions (see 2.6)</p> <p>Concrete in Pillars The concreting of the pillars should be carried out continuously, and may be interrupted at each level, namely from the foundation to the ground floor and ground floor to the crowning beam. Each section of the pillars, between floors, should be concreted continuously.</p>	1, 2

		<p>The concreting of each section of the columns must be preceded by the complete assembly of the transversal reinforcements at least 0.50 m above the concreting joint or the upper limit of the formwork. Concrete must be regularly distributed and compacted by horizontal layers of thickness, generally not exceeding 0.30m.</p> <p>The Contractor undertakes to submit for approval by the Inspection the plan for concreting, control of verticality and direction of the pillars, specifically indicating all its processing, stoppages, execution time, verification plan and equipment to be used, etc.</p> <p>Horizontal concreting joints in pillars should not be allowed.</p> <p>The quantification of the volume is considered its total height starting at the top of the footing without interruption of other elements that cross it multiplied by its section.</p> <p>The formwork to be used must be included in the cost of this activity.</p> <p>Formwork The formwork should be placed on the faces of the Pillar. The reinforcement must be positioned in such a way as to maintain the covering.</p> <p>General Conditions for Formwork (see 3.6)</p> <p>General Concrete Conditions (see 2.6)</p>	
5,6	<p>Fornecimento e aplicação do Betão B25 em Vergas incluindo Cofragem.</p> <p>Supply and application of B25 Concrete in Vergas including Formwork</p>	<p>Condições Gerais do Betão (ver 2,5)</p> <p>Cofragem A cofragem será disposta nas faces laterais da Verga; A armadura de vera estar posicionada a meio da altura da secção ao longo do seu cumprimento;</p> <p>Condições Gerais da Cofragem (ver 3,6)</p> <p>General Concrete Conditions (see 2.5)</p> <p>Formwork The formwork should be placed on the lateral faces of the Verga. The reinforcement must be positioned at the middle of the height of the section along its length.</p> <p>General Formwork Conditions (see 3.6)</p>	8, 9, 10
5,7	<p>Fornecimento e compactação de pedra 19-25mm a volta do edifício para proteção contra a erosão.</p>	<p>Pavimento a volta do Edifício</p> <p>a) Protecção das fundações a volta do edifício com brita com a granulometria de 19-25mm; b) Devera ser feita uma escavação de solo de 5cm com a largura de 0,40m e aplicar a brita numa altura de 7cm;</p>	

	19-25mm stone supply and compaction at building for erosion protection.	<p>A medição será feita em metros cúbicos, considerando a área do perímetro pela espessura de aplicação do material.</p> <p>Floor around the Building</p> <p>a) Protection of foundations around the building with gravel with a granulometry of 19-25mm.</p> <p>b) A 5cm soil excavation with a width of 0.40m must be made and the gravel must be applied at a height of 7cm.</p> <p>The measurement should be made in cubic meters, considering the area of the perimeter by the thickness of application of the material.</p>	
6,0	COBERTURA/ROOF		
6,1	<p>Fornecimento e colocação da Trelças "x" em madeira, incluindo elementos de ligação e fixação aos apoios.</p> <p>Supply and installation of wooden trusses "x", including elements for connecting and fastening to the supports.</p>	<p>Estrutura em madeira</p> <p>a) As diferentes peças que compõem as estruturas (treliças, remoinhos, travessas e vigas) serão feitas com madeira "Pinho" serrada e tratada ou outra de qualidade superior (com as secções indicadas nos desenhos de pormenor do projecto.</p> <p>b) As madeiras deverão passar pela aprovação da Fiscalização e com especificações técnicas do fornecedor, observando as seguintes características:</p> <p>- Humidade máxima = 15%.</p> <p>- Resistência à ruptura por flexão = 87 Mpa.</p> <p>- Resistência à ruptura por compressão axial = 47 Mpa.</p> <p>c) Para o tratamento da madeira deverá ser aplicado o Cuprinol com pincel, pelo menos 3 demãos, intercaladas por 1h;</p> <p>c) As peças serão cuidadosamente executadas, segundo as indicações técnicas e desenhos detalhados, sem emendas e com as dimensões indicadas no projecto.</p> <p>d) As ferramentas de corte devem ser sempre perfeitamente afiadas, a fim de evitar que as superfícies se tornem irregulares, rugosas e de aspecto desagradável, e para não entorpecer o bordo da lâmina.</p> <p>e) Os meios metálicos de ligação serão em aço e conforme as dimensões indicadas no projecto.</p> <p>O Empreiteiro deverá produzir as treliças padrão e os respectivos elementos metálicos de apoio da estrutura para aprovação da Fiscalização antes da montagem.</p> <p>A estrutura da cobertura é medida por unidade de treliças incluindo os seus elementos de ligação e apoio. As treliças por unidade do comprimento equivalente. Em relação a cobertura da varanda, os elementos são medidos em metros lineares.</p> <p>Wooden structure</p> <p>a) The different parts that make up the structures (trusses, purlins, interlocks and beams) should be made with sawn and treated 'Pine' wood or other of superior quality (with the sections indicated in the detailed drawings of the project.</p> <p>b) The wood must pass the approval of the Inspection and with the supplier's technical specifications, observing the following characteristics:</p> <p>- Maximum humidity = 15%.</p> <p>Flexural breaking strength = 87 Mpa.</p> <p>Axial compression breaking strength = 47 Mpa.</p> <p>c) For the treatment of the wood, Cuprinol should be applied with a brush, at least 3 coats, interspersed for 1 hour;</p> <p>c) The pieces should be carefully executed, according to the technical indications and detailed drawings, without seams and with the dimensions indicated in the project.</p>	3, 12, 13, 14, 15, 18, 19
6,2	<p>Fornecimento e colocação da Trelças "y" em madeira, incluindo elementos de ligação e fixação aos apoios.</p> <p>Supply and installation of wooden trusses "y", including elements for connecting and fastening to the supports.</p>		
6,3	<p>Fornecimento e colocação de Barrotes 150x50 incluindo os elementos de fixação metálicos.</p> <p>Supply and laying of 150x50 Bars including metallic fastening elements.</p>		
6,4	<p>Fornecimento e colocação de Madres 75x50 incluindo elementos de fixação.</p> <p>Supply and laying of Matres 75x50 including fastening elements.</p>		

		<p>d) Cutting tools must always be perfectly sharp, in order to prevent the surfaces from becoming uneven, rough and unpleasant looking, and to not dull the edge of the blade.</p> <p>e) The metallic means of connection should be in steel and according to the dimensions indicated in the project</p> <p>The Contractor shall produce the standard trusses and the respective metallic elements supporting the structure for approval by the Inspection prior to assembly.</p> <p>The roof structure is measured by trusses unit including their connecting and support elements. The purlins per unit of equivalent length. Regarding the balcony coverage, the elements are measured in linear meters.</p>	
6,5	<p>Fornecimento e colocação de chapa de cobertura IBR 686 Termolacada 0.6mm, incluindo todos elementos de fixação conforme as recomendações do fabricante.</p> <p>Supply and installation of IBR 686 Thermo lacquered 0.6mm cover plate, including all fastening elements according to the manufacturer's recommendations.</p>	<p>Revestimento da Cobertura</p> <p>a) As chapas serão revestidas com lacagem térmica, do tipo IBR 686, com espessura mínima de 0.6mm e serão colocadas conforme instruções do fabricante;</p> <p>b) As chapas de cobertura serão colocadas em comprimentos longos, com as caneluras estreitas para cima, com sobreposição lateral de duas caneluras do lado oposto de onde sopram os ventos pre-dominantes;</p> <p>c) A instalação deve ser efectuada com grampos com porcas e anilhas metalizadas adequadas à estrutura de apoio; as anilhas metálicas deverão ser apertadas sobre anilhas de borracha. A anilha do grampo será executada, antes do aperto final. As roscas nos grampos deverão ser abertas antes de se efectuar a metalização do cádmio. Estes materiais estão incluídos no presente artigo, devendo ser submetido à aprovação da Fiscalização. A execução deste trabalho deverá ser confiada a operários de reconhecida competência técnica.</p> <p>d) Este capítulo inclui todos os acessórios necessários para a montagem das chapas e acabamentos tais como cumeeiras, rendas para remate de beiral, todas as fraldas de remate de empenas, sendo protegidas com produto betuminoso adequado nas áreas a serem embutidas nos revestimentos;</p> <p>e) As Cumeeiras serão em Chapa Termolacada de 0,60m de largura; na sua montagem, deverá ser aplicado um elemento de cobertura entre a Cumieeira e a Chapa de Cobertura com a finalidade de isolar o ambiente exterior e interior;</p> <p>f) O Rufo será e Chapa Termolacada com 0,4 mm de espessura; a sua fixação deverá ser nas vigas da estrutura da cobertura; poderá ser afixado em simultâneo com as chapas da cobertura podendo utilizar os mesmos pregos.</p>	04
6,6	<p>Fornecimento e colocação na varanda, de chapa de cobertura IBR 686 Termolacada 0,6mm, incluindo todos os elementos de fixação conforme as recomendações do fabricante.</p> <p>Supply and installation on the balcony of IBR 686 Thermo lacquered 0.6mm cover plate, including all fastening elements according to the manufacturer's recommendations.</p>	<p>Cover Coating</p> <p>a) The sheets should be coated thermo lacquered, type IBR 686, with a minimum thickness of 0.6mm and should be laid according to the manufacturer's instructions;</p> <p>b) The roofing sheets shall be laid in long lengths, with the narrow flutes upwards, with a lateral overlap of two flutes on the opposite side from where the prevailing winds blow;</p> <p>c) The installations shall be performed with clamps with nuts and metallized washers suitable for the support structure; metal washers should tighten over rubber washers. Under the clamp ring should be executed, before final tightening. The threads on the clamps must be opened before performing the cadmium metallization. These materials are included in this article and must be submitted for approval by the Inspection. The execution of this work must be entrusted to workers of recognized technical competence.</p>	04 (ZONA 1)
6,7	<p>Fornecimento e colocação de Cumeeira em chapa Lisa Termolacada 0,6mm.</p> <p>Supply and installation of ridge caps in 0.6mm smooth thermolacquered plate.</p>	<p>d) This chapter includes all the accessories necessary for the assembly of sheets and finishes, such as ridges, lace for eaves, all diapers for gables, being protected with a suitable bituminous product in the areas to be embedded in the coverings;</p> <p>e) The ridges should be in thermic lacquered plate, 0.60m wide; in its assembly, a covering element must be applied between the Cumieeira and the Covering Plate in order to isolate the exterior and interior environment;</p>	08
6,8	<p>Fornecimento e colocação de Rufo em chapa Termolacada 0,4 mm.</p> <p>Supply and installation of Rufo in 0.4 mm Thermo-lacquered sheet.</p>		

		f) The Rufoshould be a 0.4 mm thick thermo-lacquered sheet; its fixation must be in the beams of the roof structure; it can be affixed at the same time as the cover plates, using the same nails	
6,9	<p>Fornecimento e colocação de Caleira tipo Marley incluindo dois tubos de descarga e todos acessórios de fixação.</p> <p>Supply and installation of a Marley Gutter including two discharge pipes and all fixing accessories.</p>	<p>Caleira Marley</p> <p>a) Deverá ser aplicada a Caleira tipo Marley no alçado posterior do edifício com duas pendentes, uma para cada extremidade do edifício com inclinação de 1%;</p> <p>b) Nas extremidade, deverão ser instalados os tubos para baixo com um diâmetro de 110mm, devidamente afixados à parede e com a água a ser enviada para um tanque de plástico;</p> <p>c) A caleira será afixada a uma viga com suportes e deverá ser posicionada a cada 1 m;</p> <p>d) Todos os elementos de suporte e de fixação deverão ser do mesmo fabricante das caleiras a serem aplicadas;</p> <p>Marley Gutter</p> <p>a) Marley type gutter must be applied on the rear elevation of the building with two slopes, one for each end of the building with a 1% inclination.</p> <p>b) At the ends, down tubes with a diameter of 110mm must be installed, properly affixed to the wall and with the water being sent to a plastic tank.</p> <p>c) The gutter shall be affixed to a beam with supports and should be positioned every 1 m.</p> <p>d) All support and fixing elements must be from the same manufacturer of the gutters to be applied.</p>	
6,10	<p>Fornecimento e colocação de Reservatórios Plásticos com 5000Lts incluindo as bases de apoio em betão.</p> <p>Supply and laying of Plastic Reservoirs with 5000 Lts including the concrete support base.</p>	<p>Para este item, deverá ser considerado:</p> <p>a) A execução de uma base em betão simples com 2,0x2,0m</p> <ul style="list-style-type: none"> - escavação da fundação na profundidade de 0,20m; - rega e compactação da aérea escavada 2,4x2,4m; - aplicação da pedra de enrocamento 19-8mm no perímetro da escavação com a largura de 0,30m e espessura de 0,10m e posterior aplicação de argamassa para colocação de blocos amolecidos no perímetro; - enchimento da caixa de pavimento com solo até atingir o nível desejado deixando 0,10cm abaixo do bloco para aplicação do enrocamento; - com uma cofragem que delimita o perímetro da laje de betão que terá a espessura de 8cm e posterior betonilha e reboco afagado de 1cm de espessura. <p>b) Deverão ser fornecidos tanques de plástico com 5000 Lts e aplicados sobre as bases.</p> <p>For this item, the following should be considered:</p> <p>a) The execution of a simple concrete base with 2.0x2.0m</p> <ul style="list-style-type: none"> - foundation excavation at a depth of 0.20m. - irrigation and compaction of the 2.4x2.4m excavated area. - application of 19-8mm rockfill stone on the perimeter of the excavation with a width of 0.30m and a thickness of 0.10m and subsequent application of mortar for laying softened blocks on the perimeter. - filling the pavement box with soil until reaching the desired level, leaving 0.10 cm below the block to apply the rockfill. - with a formwork delimiting the perimeter of the concrete slab, which shall have a thickness of 8cm and subsequent screed and smoothed plaster with a thickness of 1cm. <p>b) Plastic tanks with 5000 Lts must be provided and applied on the bases.</p>	N/A
7,0	CAIXILHARIA/Framework		

7,1	<p>Fornecimento e colocação de Janela e aro em madeira Chanfuta ou Umbila Pintada, com vidro de 4 mm de espessura, duas placas de abertura com vidro, duas placas de bandeira fixas com vidro, incluindo todos os acessórios e ferragens.</p> <p>Supply and installation of Window and frame in Chanfuta or Painted Umbila wood, with 4 mm thick glass, two opening sheets with glass, two fixed flag sheets with glass, including all accessories and hardware</p>	<p>Janelas</p> <p>a) A caixilharia será de madeira de Chanfuta ou Umbila, bem seca, de fibras direitas e unidas, sem nós, bem seca, não queimada, sem fendas, isentas de vermes da madeira e outras doenças, de cor uniforme e veios de aspecto regular e uniformemente distribuídos, e executada de acordo com os desenhos detalhados anexos.</p> <p>b) Para elementos em madeira, a tinta a aplicar será <i>Esmalte Sintético</i>. A pintura deverá ser antecedida de aplicação de um primário com um mínimo de dois; serão aplicadas as demãos necessárias para obter uma cor uniforme e uma perfeita cobertura das superfícies pintadas.</p> <p>c) Os aros serão chumbados ao betão ou alvenaria por meio de parafusos com porcas, metalizados a zinco. O espaçamento entre as fixações não deve exceder 0,60 m; em cada fixação colocar-se-ão parafusos de 5/16". Os orifícios de colocação dos parafusos serão tapados por buchas de madeira idêntica à dos aros. A ligação do aro ao betão ou alvenaria será feita por interposição de cordão-vedante apropriado e de secagem lenta;</p> <p>d) A caixilharia deverá ser colocada de forma a fechar hermeticamente e o seu funcionamento ser perfeito;</p> <p>e) Cada um dos elementos dos aros será realizado, numa peça única;</p> <p>f) As ferragens em geral deverão ser robustas e de funcionamento e compatível com o esquema que o projecto prevê para o funcionamento e fecho da caixilharia. Cada caixilho será equipado com um regulador de cromado robusto que permita a abertura completa da janela, de modelo a ser aprovado previamente pela Fiscalização.</p> <p>g) O Caixilho articulado será equipado com duas fechaduras de culatra em latão com pelo menos 8" de modelo a ser aprovado previamente pela Fiscalização;</p> <p>h) A rede mosquiteira será plástica, sem furos nem defeitos, com uma malha de 1,5mm. Quando colocada, a rede deve ser perfeitamente endireitada e esticada, com os terminais protegidos. A rede é baseada num anel de Madeira e deve dar uma trinca de acordo com o detalhe.</p> <p>h) ;</p> <p>i) Na caixilharia de batente cada folha será fixada aos aros por 3 fichas de 1/2 balanço cromado de 3" com anilha,</p> <p>j) Aparafusados por parafusos de cromados. Serão providas de 2 pegas metálicas;</p> <p>k) Deverá ser executado um protótipo a aprovar pela Fiscalização.</p> <p>Windows</p> <p>a) The frame shall be of Chanfuta or Umbila wood, well dry, with straight and united fibers, without knots, well dry, not burnt, without cracks, free from woodworm and other diseases, of uniform color and veins of regular and uniform appearance. distributed, and executed in accordance with the attached detail drawings.</p> <p>b) For wooden elements, the paint to be applied should be Synthetic Enamel. The painting must be preceded by the application of a primer with a minimum of two; the necessary coats should be applied to obtain a uniform color and a perfect covering of the painted surfaces.</p> <p>c) The rims should be anchored to the concrete or masonry by means of screws with nuts, metallized with zinc. The spacing between fixtures should not exceed 0.60 m; in each fixation, place 5/16" screws. The holes for placing the screws should be covered by wooden dowels identical to the ones on the rims. The connection of the rim to the concrete or masonry wshould be made by interposing an appropriate and slow drying sealing cord ;</p> <p>d) The frame must be laid in such a way as to close hermetically and its functioning must be perfect;</p> <p>e) Each of the elements of the hoops should be made, in a single piece;</p> <p>f) The hardware in general must be robust and functioning and compatible with the scheme that the project foresees for the functioning and closing of the frame. Each frame should be equipped with a robust chrome regulator that allows the complete opening of the window, of a model to be previously approved by the Inspection.</p> <p>g) The hinged frame should be equipped with two brass breech locks with at least 8" of a model to be previously approved by the Inspection;</p>	P2
7,2	<p>Fornecimento e colocação de Janela e aro em madeira Chanfuta ou Umbila Pintada, com vidro de 4 mm de espessura, duas placas de abertura com vidro, duas placas de bandeira fixas com vidro, incluindo todos os acessórios e ferragens.</p> <p>Supply and installation of Window and frame in Chanfuta or Painted Umbila wood, with 4 mm thick glass, two opening sheets with glass, two fixed flag sheets with glass, with steel bars, including all accessories and hardware.</p>		P2
7,3	<p>Fornecimento e colocação de janela e aro em madeira Chanfuta ou Umbila Pintada com batentes e barras de aço na bandeira, incluindo todos os acessórios e ferragens.</p> <p>Supply and installation of window and frame in Chanfuta or Painted Umbila wood with stops and steel bars on the flag, including all accessories and hardware</p>		P1
7,4	<p>Fornecimento e colocação de Janela e aro em madeira tipo Umbila ou Chafuta Pintada, com vidro fixo com 4mm de espessura. Localizada entre a Sala dos</p>		

	<p>Professores e o Gabinete do Director Pedagógico.</p> <p>Supply and installation of Window and frame in Umbila or Painted Chafuta wood, with fixed glass 4mm thick. Located between the Teachers Room and the Pedagogical Director's Office.</p>	<p>h) The mosquito net should be plastic, without holes or defects, with a 1.5mm mesh. When laying, the net must be perfectly straightened and stretched, with the terminals protected. The net is based on a ring of Wood and should take a bite as per the detail.</p> <p>i) In the casement frame, each sheet should be fixed to the hoops by 3 3" chrome 1/2 balance chips with washer,</p> <p>j) Bolted by chrome screws. They should be provided with 2 metallic catches;</p> <p>k) A prototype to be approved by the Inspection must be executed.</p>	
7,5	<p>Fornecimento e colocação de Janela e aro em madeira tipo Umbila ou Chafuta Pintada, com vidro fixo com 4mm de espessura. Localizada entre o Armazém e a Secretaria.</p> <p>Supply and installation of Window and frame in Umbila or Painted Chafuta wood, with fixed glass 4mm thick. Located between the warehouse and the secretariat.</p>		
7,6	<p>Fornecimento e colocação de Porta e aro em madeira Chanfuta ou Umbila Pintada, com vidro fixo de 4mm de espessura em bandeira, incluindo todos os acessórios e ferragens, fechadura de encastrar tipo Yale, 3 alavancas.</p> <p>Supply and installation of Door and frame in Chanfuta or Painted Umbila wood, with 4mm thick fixed glass in flag, including all accessories and hardware, Yale type recessed lock, 3 levers.</p>	<p>Portas de Madeira Maciça</p> <p>a) Os aros serão em madeira de Chanfuta ou Umbila, bem seca, ancorados à alvenaria por meio de parafusos com porcas, metalizados a zinco. O espaçamento entre fixações não excederá 0,60 m e os orifícios para a colocação dos parafusos serão tapados por buchas de madeira idênticas à dos aros.</p> <p>b) As portas serão de madeira chanfuta, ou umbila, bem seca, sem fendas ou rachaduras, com textura e cor homogêneas, a serem aprovadas pela Fiscalização, e executadas de acordo com os desenhos detalhados e mapa do vão.</p> <p>c) Para elementos em madeira, a tinta a ser aplicada será <i>Esmalte Sintético</i>. A pintura deverá ser antecedida da aplicação de um primário com um mínimo de dois; serão aplicadas as camadas necessárias para obter uma cor uniforme e uma cobertura perfeita das superfícies pintadas.</p> <p>d) Não é admissível nestas madeiras a presença de "borne".</p> <p>e) Cada um dos elementos dos aros será realizado em peça única.</p> <p>f) As folhas serão fixadas ao aro por 3 fichas de 1/2 balanço de 4" com anilhas, aparafusadas por parafusos.</p> <p>g) As portas e aros deverão ser colocados de forma a fecharem hermeticamente e a funcionarem perfeitamente.</p> <p>h) As portas exteriores serão equipadas de fechaduras do tipo "YALE".</p> <p>i) Nas portas interiores, a fechadura será simples com uma chave, do tipo YALE com 3 alavancas, a ser aprovada pela Fiscalização.</p> <p>j) Deverá ser montada uma borracha para limitar a abertura da porta, a qual será fixada ao pavimento por parafusos cromados.</p> <p>k) A fechadura será identificada com um número, a ser indicado pela Fiscalização, gravado com chapa de latão fixada na porta (face exterior); cada uma das 3 chaves levará uma chapa de latão com o mesmo número.</p> <p>l) Deverá ser executado um protótipo a ser aprovado pela Fiscalização</p>	P6
7,7	<p>Fornecimento e colocação de uma Porta em ripado de madeira incluindo todos os acessórios e ferragens.</p> <p>Supply and installation of a wooden slatted door including all accessories and hardware</p>		P7

		<p>Solid Wood Doors</p> <p>a) The rings should be in Chanfuta or Umbila wood, well dry, anchored to the masonry by means of screws with nuts, metallized with zinc. The spacing between fixings should not exceed 0.60 m and the holes for placing the screws should be covered by wooden dowels identical to the ones used in the frames.</p> <p>b) The doors should be made of chamfuta wood or umbila, well dry, free from cracks or cracks, with a homogeneous texture and color, to be approved by the Inspection, and to be executed in accordance with the detailed drawings and the span map.</p> <p>c) For wooden elements, the paint to be applied should be Synthetic Enamel. The painting must be preceded by the application of a primer with a minimum of two; the necessary coats should be applied to obtain a uniform color and a perfect covering of the painted surfaces.</p> <p>d) The presence of "post" in these woods is not admissible.</p> <p>e) Each of the elements of the rims should be made in a single piece.</p> <p>f) The leaves should be fixed to the frame by 3 1/2 balance 4" plugs with washers, screwed together with screws.</p> <p>g) The doors and frames must be installed so that they close hermetically and that they function perfectly.</p> <p>h) Exterior doors shall be fitted with "YALE" type locks.</p> <p>i) On the interior doors, the lock should be simple with a YALE key, with 3 levers, to be approved by the Inspection.</p> <p>j) A rubber must be fitted to limit the opening of the door, which should be fixed to the floor by chrome screws.</p> <p>k) The lock should be identified with a number, to be indicated by the Inspection, engraved with a brass plate fixed to the door (outer face); each of the 3 keys should carry a brass plate with the same number.</p> <p>l) A prototype to be approved by the Inspection must be executed.</p>	
7,8	<p>Fornecimento e fixação de ripas de madeira Chanfuta ou Umbila "Rodapé" para protecção contra os embates das carteiras nas paredes.</p> <p>Supply and fixation of Chanfuta wood slats or Umbila 'Rodape' for protection against the impact of desks on the walls.</p>	<p>Rodapé e Roda Média</p> <p>a) Serão em madeira Chanfuta ou Umbila com uma largura de 7 cm para Rodapé e 15cm para Roda média, afixada em todas as paredes das salas de aula com excepção da parede onde estará afixado o quadro.</p> <p>b) O elemento de madeira deverá ser polido e envernizado com verniz marinho.</p> <p>c) A Roda média deverá ser fixada a uma altura de 0,60 a partir do pavimento acabado.</p> <p>Footer and Middle Wheel</p> <p>a) They should be in Chanfuta or Umbila wood with a width of 7 cm for the baseboard and 15 cm for the wheel base, affixed to all classroom walls, with the exception of the wall where the frame should be affixed</p> <p>b) The wooden element must be polished and varnished with marine varnish.</p> <p>c) The Middle Wheel must be fixed at a height of 0.60 from the finished pavement.</p>	N/A
7,9	<p>Fornecimento e fixação de ripas de madeira Chanfuta ou Umbila "Roda-meio" para protecção contra os embates das carteiras nas paredes.</p> <p>Supply and fixation of Chanfuta wood slats or UmbilameWheel-medium" for protection against the impact of the desks on the walls.</p>		
7,10	<p>Fornecimento e instalação de quadros de giz tipo VITREX SYSTEM 2000 ou similar com 3,0 x 1,2 m de cor verde, incluindo moldura e a para-giz em alumínio e respectivos elementos de fixação.</p>	<p>Condições Gerais</p> <p>a) O quadro deverá ser da referência VITREX SYSTEM 2000 ou semelhante com a dimensão 3,00x1,20m de cor verde;</p> <p>b) Deverá ser afixado à parede por meio de parafusos e buchas apropriadas de acordo com as especificações do fornecedor.</p> <p>c) O quadro estará afixado à parede a 0,80m de altura do chão acabado;</p> <p>General conditions</p>	P3

	Supply and installation of chalk boards type VITREX SYSTEM 2000 or similar with 3.0 x 1.2 m in green color, including aluminum frame and chalkboard and respective fastening elements.	a) The table must be of the reference VITREX SYSTEM 2000 or similar with the dimension 3.00x1.20m in green color; b) It must be fixed to the wall using screws and suitable plugs according to the supplier's specification. c) The frame should be attached to the wall at 0.80m high from the finished floor;	
7,11	Fornecimento e instalação de Flanelógrafo com 1,2 x 0.9 m e os respectivos elementos de fixação. Supply and installation of Flannelgraph with 1.2 x 0.9 m and respective fastening elements.	Condições Gerais a) O Flanelógrafo deverá ter a dimensão de 1,20m x 0,90m; b) Deverá ser afixado à parede por meio de parafusos e buchas apropriadas de acordo com as especificações do fornecedor; c) O quadro estará afixado à parede a 1,0m de altura do chão acabado; General conditions a) The Flannelgraph must have a dimension of 1.20m x 0.90m; b) It must be affixed to the wall using appropriate screws and dowels according to the supplier's specification; c) The painting should be attached to the wall at 1.0m height from the finished floor;	N/A
7,12	Fornecimento e colocação de aro metálico e porta em madeira Chanfuta ou Umbila, incluindo ferragens. Supply and installation of metal frame and door in Chanfuta or Umbila wood, including hardware.	Condições Gerais das Janelas (ver do ponto 7.1 a 7.5) Pintura em Elementos Metálicos a) Todas as tintas a serem aplicadas serão de fábrica reconhecida e de boa qualidade; b) Para elementos metálicos, a tinta a ser aplicada será <i>Esmalte Sintético</i> ; c) As superfícies deverão estar isentas de poeiras, gorduras e outras impurezas; i) A pintura deverá ser antecedida de aplicação de um primário com um mínimo de dois; serão aplicadas as camadas necessárias para obter uma cor uniforme e uma cobertura perfeita das superfícies pintadas; j) A tinta deverá resistir as lavagens com sabão ou detergente normal; k) Toda tinta será aplicada com um pincel nos elementos de madeira sendo que nos metálicos poderá ser a pistola de pressão após a primeira camada; General Conditions for Windows (see section 7.1 to 7.5)	P3
7,13	Fornecimento e colocação de aro metálico e porta em ripado de madeira Chanfuta ou Umbila incluindo ferragens. Supply and installation of metal frame and door in Chanfuta or Umbila wood slats, including hardware.	Painting on Metallic Elements a) All paints to be applied should be from a recognized factory and of good quality; b) For metallic elements, the paint to be applied should be Synthetic Enamel; c) Surfaces must be free of dust, grease and other contaminants; i) The painting must be preceded by the application of a primer with a minimum of two; the necessary coats should be applied to obtain a uniform color and a perfect covering of the painted surfaces; j) The paint must resist washing with soap or normal detergent; k) All paint should be applied with a brush on the wooden elements, and on the metallic ones it may be the pressure pistol after the first coat;	P8
8,0	ACABAMENTOS/FINISHES		

8,1	<p>Execução e aplicação de uma betonilha de nivelamento em cimento e argamassa de areia lixada por helicóptero sobre um pavimento interior.</p> <p>Execution and application of a leveling screed in cement and sand mortar sanded by helicopter on an interior pavement.</p>	<p>Pavimentos</p> <p>a) A argamassa que constitui a betonilha será de cimento e areia no traço de 1:2; b) A betonilha deverá ter a espessura máxima de 3 cm que permite obter superfícies bem reguladas; c) A betonilha deverá ser moída a helicóptero. d) O Esquartelamento será induzido e executado com rebarbadeira.</p> <p>A medição será em metros quadrados, referindo-se à superfície aplicada.</p> <p>Floor Screeds</p> <p>a) The mortar that constitutes the screed should be cement and sand in a trace of 1:2; b) The screed should have a maximum thickness of 3 cm, which allows for well-regulated surfaces; c) The screed must be ground by helicopter. d) The quartering should be induced with a grinder.</p> <p>The measurement should be in square meters referring to the applied surface.</p>	N/A
8,2	<p>Execução e aplicação de uma betonilha de nivelamento em cimento e argamassa de areia lixada por helicóptero e subsequente aquartelamento sobre um pavimento exterior..</p> <p>Execution and application of a leveling screed in cement and sand mortar sanded by helicopter and subsequent quartering on an outdoor pavement.</p>	<p>Pavimentos</p> <p>a) A argamassa que constitui a betonilha será de cimento e areia no traço de 1:2; b) A betonilha deverá ter espessura de 3 cm no máximo que permite obter superfícies bem reguladas; c) A betonilha deverá ser preparada para receber o Mosaico Hidráulico.</p> <p>A medição será em metros quadrados, referindo-se à superfície aplicada.</p> <p>Floor Screeds</p> <p>a) The mortar that constitutes the screed should be cement and sand in a trace of 1:2; b) The screed should have a maximum thickness of 3 cm, which allows for well-regulated surfaces; c) The screed must be prepared to receive the Hydraulic Mosaic.</p> <p>The measurement should be in square meters referring to the applied surface.</p>	N/A
8,3	<p>Execução e aplicação de betonilha de nivelamento em cimento e argamassa de areia no interior.</p> <p>Execution and application of smoothing screed in cement and sand mortar inside</p>	<p>Pavimentos</p> <p>a) A argamassa que constitui a betonilha será de cimento e areia no traço de 1:2; b) A betonilha deverá ter espessura de 3 cm no máximo que permite obter superfícies bem reguladas; c) A betonilha deverá ser preparada para receber o Mosaico Hidráulico.</p> <p>A medição será em metros quadrados, referindo-se à superfície aplicada.</p> <p>Floor Screeds</p> <p>a) The mortar that constitutes the screed should be cement and sand in a trace of 1:2; b) The screed should have a maximum thickness of 3 cm, which allows for well-regulated surfaces; c) The screed must be prepared to receive the Hydraulic Mosaic.</p> <p>The measurement should be in square meters referring to the applied surface.</p>	N/A
8,4	<p>Execução e aplicação de betonilha queimada à colher em armazém.</p> <p>Execution and application of spoon fired screed in storage</p>	<p>Betonilhas Queimada à colher</p> <p>a) A superfície deverá estar húmida (betão fresco de preferência); b) Aplicar o cimento em pó enquanto se utiliza o colher do pedreiro; c) A superfície acabada deverá ter aspecto vidrado.</p> <p>A medição será em metros quadrados, referindo-se à superfície aplicada.</p> <p>Spoon-fired screeds</p>	N/A

		<p>a) The surface must be damp (preferably fresh concrete); b) Apply the powdered cement while using the mason's spoon; c) The finished surface must have a glazed appearance.</p> <p>The measurement should be in square meters referring to the applied surface.</p>	
8,5	<p>Reboco liso em Paredes Exteriores em argamassa de cimento e areia.</p> <p>Smooth plaster on exterior walls in cement and sand mortar.</p>	<p>Reboco em Paredes</p> <p>a) A argamassa que constitui o reboco será de cimento e areia ao traço de 1:4, para o caso de reboco liso, e 1:3 para o reboco a tirolês; b) O reboco deverá ter espessura que permite obter superfícies bem reguladas, sem rugosidade e nunca terá espessura inferior a 0.02 m; c) O reboco deverá ficar bem liso, endireitado, sem rugosidade, e apertado com uma colher, quando se tratar de superfícies a serem pintadas;</p>	8
8,6	<p>Reboco liso em Paredes Interiores em argamassa de cimento e areia.</p>	<p>A medição será em metros quadrados, referindo-se à superfície aplicada.</p> <p>Plastering on Walls</p> <p>a) The mortar that constitutes the plaster should be of cement and sand in a trace of 1:4, for the case of smooth plaster, and 1:3 for the Tyrolean plaster. b) The plaster must have a thickness that allows to obtain well-regulated surfaces, without roughness and should never be less than 0.02 m thick. c) The render must be very smooth, straightened, without roughness, and tight with a spoon, when dealing with surfaces to be painted.</p> <p>The measurement should be in square meters referring to the applied surface.</p>	8
8,7	<p>Fornecimento e colocação de Azulejo em paredes.</p> <p>Supply and installation of tiles on walls.</p>	<p>Azulejo em Paredes</p> <p>Serão aplicadas nas paredes dos Sanitários e deverão obedecer às seguintes condições:</p> <p>a) O azulejo a ser utilizado será azulejo de pó de pedra, de cor branca, de arestas arredondadas e de dimensões 0,15 x 0,15m, de boa qualidade, com esmalte perfeito sem defeitos; b) A instalação será com cimento cola conforme as instruções do fabricante; c) Antes da aplicação, os azulejos deverão permanecer pelo menos 4 horas dentro de água. Caso se verifique alteração na tonalidade em algumas partes, deverão ser rejeitadas pela Fiscalização e substituídas; d) Caso a largura do pano ou painel não corresponda a um determinado número de azulejos, os cortes serão feitos de um único lado, escolhendo-se, quando possível, o lado mais escondido; e) As junções serão feitas a cimento branco, não sendo permitido o uso de gesso.</p> <p>A medição será em metros quadrados, referindo-se à superfície aplicada.</p> <p>Wall Tile</p> <p>They should be applied on the walls of the toilets and must comply with the following conditions:</p> <p>a) The tile to be used should be stone powder tile, white in color, with rounded edges and dimensions 0.15 x 0.15 m, of good quality, with perfect glaze without defects. b) The installation should be with cement glue according to the manufacturer's instructions.</p>	N/A

		<p>c) Before application, the tiles must remain in water for at least 4 hours. If there is a change in tone in some parts, they must be rejected by the Inspection and replaced.</p> <p>d) In case the width of the cloth or paneling does not correspond to a certain number of tiles, the cuts should be made on a single side, choosing, when possible, the most hidden side.</p> <p>e) The joints should be made of white cement; the use of plaster not being allowed.</p> <p>The measurement should be in square meters referring to the applied surface</p>	
8,8	<p>Fornecimento e colocação de Mosaico hidráulico em pavimento.</p> <p>Supply and laying of hydraulic floor tiles.</p>	<p>Mosaico em Pavimento Será aplicado em pavimento no interior dos Sanitários e deverão obedecer as seguintes condições:</p> <p>a) O mosaico a ser utilizado deverá ser anti-derrapante com dimensões de 0,25 x 0,25m, de boa qualidade e sem defeitos;</p> <p>b) A instalação será com cimento cola para pavimentos e aplicada conforme as instruções do fabricante;</p> <p>c) Caso a largura do pano ou painel não corresponda a um determinado número de azulejos, os cortes serão feitos de um único lado, escolhendo-se, quando possível, o lado mais escondido;</p> <p>d) As junções serão feitas com cimento.</p> <p>A medição será em metros quadrados, referindo-se à superfície aplicada.</p> <p>Floor Mosaic It should be applied on pavement inside the toilets and must comply with the following conditions:</p> <p>a) The mosaic to be used must be non-slip with dimensions of 0.25 x 0.25 m, of good quality and without defects.</p> <p>b) The installation should be with cement glue for floors and applied according to the manufacturer's instructions.</p> <p>c) In case the width of the cloth or paneling does not correspond to a certain number of tiles, the cuts should be made on a single side, choosing, when possible, the most hidden side.</p> <p>d) The joints should be made with cement.</p> <p>The measurement should be in square meters referring to the applied surface.</p>	N/A
8,9	<p>Pintura em Parede Exterior, com tinta Esmalte Exterior de boa qualidade, antecedida de preparação da parede com subcamada.</p> <p>Exterior Wall Painting, with good quality Exterior Enamel paint, preceded by wall preparation with undercoat.</p>	<p>Pintura em Paredes</p> <p>a) Todas as tintas a serem aplicadas serão de fábrica reconhecida e de boa qualidade;</p> <p>b) Para as paredes exteriores, a tinta a ser aplicada será <i>Esmalte Aquoso 100% Acrílico</i>, própria para aplicação sobre reboco de cimento acabado em áspero, e resistente às intempéries e à impermeabilização;</p> <p>c) Para interiores, a tinta a ser aplicada será <i>Aquosa Estireno-Acrilica</i>, com resistência à lavagem e à esfoliação tipo II;</p> <p>d) Para áreas interiores em painéis, a tinta será <i>Esmalte Aquoso 100% Acrílico</i>;</p> <p>e) As tintas deverão dar entrada na obra em embalagem original e serão de cores e tipo a escolher pelo Dono da Obra;</p>	N/A
8,10	<p>Pintura em Parede Exterior em lãbril de 1,50m, com tinta Aquosa de boa qualidade antecedida de preparação da parede com subcamada. Cor à escolha do dono da obra.</p>	<p>f) Todas as superfícies a serem pintadas serão isoladas com produto apropriado à natureza da parede, e segundo as instruções do fabricante da tinta;</p> <p>g) Sobre o isolamento será dado o número de camadas indicado pelo fabricante, pelo menos duas; serão aplicadas as camadas necessárias para obter uma cor uniforme e um revestimento perfeito das superfícies pintadas;</p> <p>h) A tinta deverá resistir às lavagens com sabão ou detergente normal;</p> <p>i) A primeira camada será aplicada com pincel e as restantes com rolo ou de acordo com as instruções da Fiscalização;</p>	

	Painting on Exterior Wall in 1.50m wainscot, with good quality Aqueous paint, preceded by preparation of the wall with undercoat. Color chosen by the developer.	Wall Painting a) All paints to be applied should be from a recognized factory and of good quality. b) For exterior walls, the paint to be applied should be 100% Acrylic Aqueous Enamel, suitable for application on cement plaster finished in rough, and resistant to weathering and waterproofing. c) For interiors, the paint to be applied should be Aqueous Styrene-Acrylic, with wash resistance and type II scrubbing. d) For interior areas in panelling, the paint should be 100% Acrylic Aqueous Enamel. e) The paints must enter the work in original packaging and should be of colors and type to be chosen by the Owner of the Work. f) All surfaces to be painted should be insulated with a product appropriate to the nature of the wall, and in accordance with the paint manufacturer's instructions. g) On the insulation, the number of coats indicated by the manufacturer should be given, at least two; the necessary coats should be applied to obtain a uniform color and a perfect covering of the painted surfaces. h) The paint must resist washing with soap or normal detergent. i) The first coat should be applied by brush and the rest by roller or according to the instructions of the Inspection;	
8,11	Pintura em Parede Interior, acima do nível do lambril com tinta Aquosa de boa qualidade, antecedida de preparação da parede com subcamada.		
8,12	Pintura em Paredes Interiores em lambril de 1,50m, com Esmalte de boa qualidade, antecedida de preparação das superfícies com subcamada. Cor à escolha do dono da obra. Pintura em Paredes Interiores em lambril de 1,50m, com Esmalte de boa qualidade, antecedida de preparação das superfícies com subcamada. Cor à escolha do dono da obra.		
9,0	INSTALAÇÃO ELÉCTRICA/ELETRIC INSTAL		
9,1	Fornecimento e instalação de caixas de junção quadradas de 80x80x45 encastradas, em termoplástico branco, com tampa.. Supply and installation of 80x80x45 recessed square junction boxes, in white thermoplastic, with lid.	Condições Gerais Normativas As instalações deverão seguir as normas vigentes no país nomeadamente: - R.S.I.U.E.E.-Regulamento de Segurança de Instalações de Utilização de Energia Eléctrica e de Instalação Colectiva de Edifícios e Entradas; - R.S.S.P.T.F.-Regulamento de Subestação e Postos de Transformação e Secção; - R.S.L.E.A.T.-Regulamento de Segurança de Linhas Eléctricas de Alta Tensão. Os materiais deverão ser do tipo JSL ou qualidade equivalente mediante a aprovação da Fiscalização; Todos os dispositivos visíveis deverão ter uma cor única a ser aprovada pelo Dono de Obra; Todas as instalações devem ser incorporadas. General Normative Conditions The facilities must follow the rules in force in the country, namely: - R.S.I.U.E.E.-Safety Regulation of Installations for the Use of Electric Energy and for Collective Installation of Buildings and Entrances. - R.S.S.P.T.F.-Regulation of Substation and Transformer and Sectioning Stations. - R.S.L.E.A.T.-Safety Regulation of High Voltage Electric Lines. The materials must be of the JSL type or equivalent quality upon approval by the Inspection. All visible devices must have a single color to be approved by the Owner of Work. All installations must be built in.	N/A
9,2	Fornecimento e instalação de caixas de interruptores redondas de montagem embutida, diâmetro 70 mm, em termoplástico branco, com tampa		N/A

	<p>Supply and installation of round flush-mounted switchgear boxes, diameter 70 mm, in white thermoplastic, with lid.</p>	<p>Caixas de Derivação</p> <ul style="list-style-type: none"> a) As caixas serão para montagem visível; b) Serão em baquelite moldada de cor creme, com tampas da mesma cor fixadas por parafusos cromados, apertadas em buchas cromadas roscadas ou cravadas nas caixas; c) Terão as dimensões mínimas de 80x80x40mm até seis entradas e 120x80x40mm para mais de seis entradas; d) A espessura mínima da parede das caixas é de 20mm; e) As entradas e saídas dos tubos RV deverão permitir uma estanquidade perfeita, e serão executadas no mesmo material dos tubos; f) Não será aceite mais do que um tipo de circuito em cada caixa; g) Só será permitido uma placa de bornes em cada caixa, admitindo-se a passagem no seu interior de condutores inteiros do mesmo circuito; h) As placas de bornes serão em porcelana, com dimensões adequadas à secção dos condutores a ligar, devendo estas ligações cumprir as disposições dos Artigos Nº 121, 122 e 123 do R.S.I.U.E.E.; serão fixadas ao fundo das caixas por dois parafusos. <p>Junction Boxes</p> <ul style="list-style-type: none"> a) The boxes should be for visible assembly. b) They should be in molded cream-colored bakelite, with lids of the same color fixed by chrome screws, tightening in chrome bushings threaded or nailed into the boxes. c) Should have the minimum dimensions of 80x80x40mm for up to six entries and 120x80x40mm for more than six entries. d) The minimum wall thickness of the boxes is 20mm. e) The entrances and exits of the RV tubes must ensure perfect watertightness and should be made in the same material as the tubes. f) No more than one type of circuit should be accepted in each box. g) Only one terminal board should be allowed in each box, admitting the passage inside it of entire conductors of the same circuit. h) The terminal boards should be in porcelain, with dimensions suitable for the section of the conductors to be connected, and these connections must comply with the provisions of Articles No. 121, 122 and 123 of the R.S.I.U.E.E.; should be fixed to the bottom of the boxes by two screws. 	
9,3	<p>Fornecimento e instalação de uma caixa de painéis eléctricos semi-integrada em termoplástico branco, com cobertura e Gabinete de Distribuição, incluindo todos os componentes para o seu funcionamento..</p> <p>Supply and installation of an Electrical Panel box semi-embedded in white thermoplastic, with cover and Distribution Cabinet, including all components for its operation.</p>	<p>Condições Gerais Normativas (ver ponto 9,1) General Normative Conditions (see point 9.1)</p> <p>Quadros Eléctricos</p> <ul style="list-style-type: none"> a) Serão construídos painéis eléctricos de material isolante ou outro extingüível; b) O equipamento de controlo deve ser montado com suficiente rigidez, mas de modo a que seja fácil a montagem e desmontagem dos equipamentos; c) As portas deverão ter fechaduras de maçaneta, sem chave; d) Entre a porta e o aparelho existirá um painel desmontável em chapa de aço de 2mm, que protegerá o conjunto dos equipamentos sob tensão, do aparelho. Na face do painel ficarão visíveis os órgãos de controlo e sinalização. Todos os painéis serão equipados com fechaduras; e) A preparação interior de quadros deve ser efectuada na fábrica devendo as ligações exteriores ao quadro serem efectuadas sobre réguas de terminais devidamente identificadas e referenciadas; 	N/A

		<p>f) Os barramentos deverão ser dimensionados em função dos esforços térmicos, mecânicos e da frequência de ressonância em curto-circuito;</p> <p>g) Todos os barramentos de fase possuirão a mesma secção, devendo os barramentos Neutro e terra ter secção superior à metade da secção de cada um dos barramentos de fase;</p> <p>h) Todos os barramentos serão em cobre electrolítico, dimensionado para uma densidade máxima de corrente de 2A/mm² e apoiados rigidamente sobre isoladores do tipo "permali" ou equivalente, devidamente dimensionados;</p> <p>i) Em todos os casos existirá um barramento de terra, devendo ser convenientemente ligado a este toda a sua estrutura metálica;</p> <p>j) Todos os barramentos serão dimensionados segundo as normas DIN e pintados nas cores regulamentares;</p> <p>k) Os esquemas eléctricos deverão obedecer ao indicado nos desenhos e incluir todas as alterações propostas e aprovadas pela Fiscalização;</p> <p>l) Todos os cabos interiores do quadro devem ser devidamente referenciados e dispostos, de forma a permitir a descoberta de avarias e substituição de equipamento, pela sua parte frontal;</p> <p>m) Todos os cabos internos terão como mínimo a secção de 1,5mm², para os circuitos de controlo, sinalização ou controlo, e de 2,5mm² de secção mínimo para os restantes circuitos; todos os cabos interiores serão identificados nas suas extremidades, com braçadeiras numeradas de acordo com os terminais a que se ligam;</p> <p>n) A sinalização de comando inclui obrigatoriamente um circuito de teste;</p> <p>o) Serão colocadas etiquetas individuais que informam claramente a função de cada circuito; as etiquetas serão em material lamido do tipo trafolite, gravadas com as designações a serem aprovadas pela Fiscalização e protegidas contra poeira por capa de plástico transparente;</p> <p>p) Interruptores - serão tetrapolares para corte em carga, ruptura brusca e comando frontal, sendo alguns equipados com relés à cabeça, de acordo com os desenhos. O seu poder de corte não poderá ser inferior a oito vezes da intensidade nominal requerida ou do valor indicado para a corrente de curto-circuito, e os seus contactos deverão permitir, sem fusão doze vezes a corrente nominal;</p> <p>q) Interruptores Diferenciais serão bipolares e tetrapolares para corte em carga, ruptura brusca e comando frontal, de acordo com os desenhos. Possuirão relés diferenciais de 300 mA e 30mA para protecção de defeitos de isolamento. O seu poder de corte não poderá ser inferior a oito vezes a intensidade nominal requerida e os seus contactos deverão permitir, sem fusão, doze vezes a corrente nominal;</p> <p>r) Sinalizadores - para presença de tensão nas cores EVA, quadrados ou circulares, com lâmpadas incandescentes de filamento e para funcionamento em subtenção, com uma duração mínima de 20.000 horas;</p> <p>s) Disjuntores - bipolares ou tetrapolares, sempre com corte neutro, equipados com relés térmicos e electromagnéticos, para corte no ar. O seu poder de corte deverá ser selectivo com fusíveis a montante;</p> <p>t) Seccionadores porta-fusíveis-tripolares, para corte em carga, distância de abertura suficientemente para extinção do arco, tratamento de protecção normal, segundo as normas IEC 408;</p> <p>u) Corta circuitos-fusíveis - serão do tipo cartucho ou de facas, de alto poder de corte, com percutor e sistema indicador de fusão, devendo considerar-se para distribuição, fusíveis com poder limitador mais fraco e para a protecção directa de motores, transformadores, etc., fusíveis capazes de resistir a maior sobrecargas de curta duração. Sempre que a alimentação a um mesmo quadro se fizer por meio de dois ou mais cabos, as bases para fusíveis de facas que os protegem serão equipadas com microrruptores para accionamento dos relés existentes no interruptor a montante;</p> <p>v) Terminais - existirão placas de terminais para ligar os condutores de saída e entrada do quadro, possuindo os calibres adequados às intensidades de corrente. Todas as saídas deverão ser numeradas para que a sua identificação seja rápida e de fácil percepção;</p>	
--	--	--	--

		<p>x) Condutores - as ligações entre os barramentos e os equipamentos interiores serão executadas em condutor tipo V de secção apropriadas. A secção de 1,5mm² não será permitida. Sempre que possível, serão dispostos de forma a correr no interior de calhas com tampas extractíveis de encaixe por pressão;</p> <p>z) Etiquetas - todos os circuitos deverão ser referenciados com etiquetas de trafolite preta com a designação gravada e protegida contra a poeira por placas de plástico transparente. Para os circuitos que devem estar sempre ligados, mesmo fora das horas normais de trabalho, a identificação será feita com etiquetas de cor vermelha.</p> <p>Electrical Panels</p> <p>a) Electrical panels of insulating material or other extinguishable material should be built.</p> <p>b) The control equipment must be assembled with sufficient rigidity, but in such a way that it is easy to assemble and disassemble the equipment.</p> <p>c) The doors must have handle locks, without a key.</p> <p>d) Between the door and the appliance there should be a detachable panel in 2mm steel plate, which should protect all the equipment under tension from the appliance. The control and signaling organs should be visible on the face of the panel. All panels should be equipped with locks.</p> <p>e) The interior preparation of switchboards must be carried out at the factory, and the external connections to the switchboard must be made on terminal strips duly identified and referenced.</p> <p>f) The busbars must be dimensioned to the thermal and mechanical efforts and the short-circuit resonance frequency.</p> <p>g) All phase busbars should have the same section, and the Neutral and earth busbars must have a section greater than half of the section of each one of the phase busbars.</p> <p>h) All busbars should be in electrolytic copper, dimensioned for a maximum current density of 2A/mm² and rigidly supported on "permali" or equivalent type insulators, suitably dimensioned.</p> <p>i) In all cases, there should be an earth busbar, and its entire metal structure must be conveniently connected to it.</p> <p>j) All busbars should be dimensioned according to DIN standards and painted in regulatory colors.</p> <p>k) The electrical diagrams must comply with what is indicated in the drawings and include all the changes proposed and approved by the Inspection.</p> <p>l) All the internal wiring of the switchgear must be properly referenced and arranged, in order to allow the discovery of malfunctions and replacement of equipment, from the front.</p> <p>m) All internal cabling should have a minimum section of 1.5mm² for the command, signaling or control circuits, and a minimum section of 2.5mm² for the remaining circuits; all inner cables should be identified at their ends, with clamps numbered according to the terminals to which they are connected.</p> <p>n) Command signaling must include a test circuit.</p> <p>o) Individual labels should be placed that clearly inform the function of each circuit; the labels should be in laminated trafolite-type material, engraved with the designations to be approved by the Inspection and protected from dust by a transparent plastic cover.</p> <p>p) Switches should be four-pole for load cut, sudden break and front control, some being equipped with overhead relays, according to the drawings. Its breaking power must not be less than eight times the nominal intensity required, or the value indicated for the short-circuit current, and its contacts must allow, without melting, twelve times the nominal current.</p> <p>q) Differential switches should be bipolar and tetrapolar for load cut, sudden break and front control, according to the drawn parts. They should have 300 mA and 30 mA differential relays for protection from insulation defects. Its cutting power must not be less than eight times the nominal intensity required, and its contacts must allow, without fusion, twelve times the nominal current.</p>	
--	--	--	--

		<p>r) Signals for the presence of voltage in EVA colors, square or circular, with incandescent filament lamps and for undervoltage operation, with a minimum duration of 20,000 hours.</p> <p>s) Bipolar or tetrapolar circuit breakers, always with neutral cutout, equipped with relays. thermal and electromagnetic, for cutting in air. Its cutting power should be selective with upstream fuses.</p> <p>t) Three-pole fuse-holder disconnectors, for on-load cut-off, opening distance sufficiently to extinguish the arc, normal protection treatment, according to IEC 408 standards.</p> <p>u) Cuts fuse circuits should be of the cartridge or knife type, with high cutting power, with firing pin and fusion indicator system, considering whether for distribution, fuses with weaker limiting power and for the direct protection of motors, transformers, etc., fuses capable of withstanding greater short-term overloads. Whenever the power supply to the same switchgear is made by means of two or more cables, the bases for fuses of the knives that protect them should be equipped with microswitches to activate the existing relays in the upstream switch.</p> <p>v) Terminals There should be terminal boards to connect the output and input conductors of the switchgear, having the appropriate gauges for the current intensities. All exits must be numbered, so that their identification is quick and easy to understand.</p> <p>x) Conductors the connections between the busbars and the interior equipment should be carried out in a type V conductor with an appropriate section. The 1.5mm² section should not be allowed. Whenever possible, they should be arranged to run inside gutters with removable snap-oncovers.</p> <p>z) Labels all circuits must be referenced with black trafilite labels with the designation engraved and protected against dust by transparent plastic plates. For circuits that must always be on, even outside normal working hours, identification should be made with red colored labels.</p>	
9,4	<p>Fornecimento e montagem de Tubo VD Ø 20 mm, incluindo todos os acessórios, curvas, uniões e boquilhas.</p> <p>Supply and assembly of VD Tube Ø 20 mm, including all accessories, bends, unions and mouthpieces.</p>	<p>Condições Gerais Normativas (ver ponto 9,1)</p> <p>Tubagem tipo VD 16</p> <p>a) Em todo o projecto serão aplicados acessórios devidamente colocados, não se aceitando ligações por chama;</p> <p>b) Os tubos que corram paralelamente no mesmo roço deverão ser instalados, ao longo de todo o seu trajecto, com um afastamento entre si que permita à argamassa de tapamento penetrar entre eles;</p> <p>c) O raio de curvatura das tubagens não pode ser inferior a seis vezes o seu diâmetro exterior;</p> <p>d) Deverão ser deixadas guias de enfiamento em toda a tubagem até ao enfiamento final dos condutores respectivos;</p> <p>e) Em casos de corte ou ligação de tubos não é permitida a permanência de rebarbas que possam vir a romper o isolamento dos condutores;</p> <p>f) As tubagens que circulam à vista serão colocadas sobre braçadeiras extensíveis com parafusos de latão;</p> <p>g) Deverá o empreiteiro considerar as caixas de passagem necessárias para um fácil enfiamento dos condutores, não podendo estas estar afastadas entre si mais que 10 metros, devendo esta distância ser encurtada sempre que as condições de montagem o justifiquem;</p> <p>h) Todas as tubagens deverão entrar nas caixas mesmo que não seja electricamente necessário;</p> <p>i) A cobertura das ondulações só deve ser autorizada após a confirmação da sua correcta aplicação pela Fiscalização.</p>	N/A
9,5	<p>Fornecimento e montagem de Tubo VD Ø 40 mm, incluindo todos os acessórios, curvas, uniões e boquilhas.</p> <p>Supply and assembly of VD Tube Ø 40 mm, including all accessories, bends, unions and mouthpieces.</p>	<p>General Normative Conditions (see point 9.1)</p> <p>Type VD 16 piping</p> <p>a) In the entire project, properly placed accessories should be applied, not accepting connections by flare.</p> <p>b) The pipes that run parallel to the same trench must be installed, along their entire route, with a distance between them that allows the masking mortar to penetrate between them.</p> <p>c) The radius of curvature of the pipes cannot be less than six times its outer diameter.</p> <p>d) Threading guides must be left throughout the pipe until the final threading of the respective conductors.</p>	N/A

		<p>e) In cases of cutting or connecting pipes, burrs that could break the conductor insulation are not allowed.</p> <p>f) The pipes that circulate on sight should be laid on extensible clamps with brass screws.</p> <p>g) The contractor must consider the passage boxes necessary for an easy threading of the conductors, which cannot be more than 10 meters apart from each other, and this distance must be shortened whenever the assembly conditions so justify.</p> <p>h) All piping must enter the boxes even if it is not electrically necessary.</p> <p>i) The covering of the swales should only be authorized after confirmation of their correct implementation by the Inspection.</p>	
9,6	<p>Fornecimento e colocação de tomadas monofásicas nos compartimentos.</p> <p>Supply and installation of single-phase sockets in the compartments.</p>	<p>Condições Gerais Normativas (ver ponto 9,1)</p> <p>Tomadas Monofásicas</p> <p>a) As tomadas serão para montagem visual;</p> <p>b) Com pólo de terra, para 16A/250V, de alvéolos protegidos, com aperto mecânico dos condutores aos terminais;</p> <p>c) Serão montados a 0,30m do pavimento acabado (cota do centro da caixa de aparelhagem).</p> <p>General Normative Conditions (see point 9.1)</p> <p>Single-Phase Outlets</p> <p>a) The sockets should be for visual assembly.</p> <p>b) With ground pole, for 16A/250V, with protected alveoli, with mechanical tightening of the conductors to the terminals.</p> <p>c) They should be mounted at 0.30m from the finished floor (elevation of the center of the switchgear box).</p>	N/A
9,7	<p>Fornecimento e colocação de interruptores para as luminarias dos compartimentos.</p> <p>Supply and installation of switches for the luminaires in the compartments.</p>	<p>Condições Gerais Normativas (ver ponto 9,1)</p> <p>Interruptores Simples</p> <p>a) Os interruptores serão para montagem visual;</p> <p>b) Os interruptores serão do tipo basculante, para 10A - 250V, silenciosos e com ruptura brusca independentemente do órgão de controlo, contactos de elevada duração e aperto mecânico dos endutores aos terminais;</p> <p>c) Serão montados a 1,70 metros do pavimento acabado (elevação do centro da caixa de interruptores);</p> <p>d) A aparelhagem deverá ser fixa à respectiva parede através de buchas plásticas.</p> <p>General Normative Conditions (see point 9.1)</p> <p>Simple switches</p> <p>a) The switches should be for visible assembly.</p> <p>b) The switches should be of the tilting type, for 10A 250V, silent and with a sudden break regardless of the control organ, long-lasting contacts and mechanical tightening of the enductors to the terminals.</p> <p>c) They should be mounted at 1.70 meters from the finished floor (elevation of the center of the switchgear box).</p> <p>d) The appliance must be fixed to the respective wall using plastic plugs.</p>	N/A
9,8	<p>Fornecimento e instalação da cabos necessários para a electrificação da rede.</p>	<p>Condições Gerais Normativas (ver ponto 9,1)</p>	N/A

	Supply and installation of the necessary cabling for the electrification of the network.		
9,9	<p>Fornecimento e instalação de Luminárias de tipo régua com abas nos compartimentos.</p> <p>Supply and installation of ruler type Luminaires with flaps in the compartments.</p>	<p>Condições Gerais Normativas (ver ponto 9,1)</p> <p>Armaduras Fluorescentes</p> <ul style="list-style-type: none"> a) Todas as armaduras fluorescentes serão do tipo régua industrial com abas reflectoras; b) Os corpos das armaduras bem como as abas reflectoras, deverão ter sido tratados contra a corrosão, pintados em cor branca e seca em estufa; c) Os balastros deverão ter perdas mínimas, deverão ser não ruidosos e do tipo aconselhado para as lâmpadas indicadas. d) Deverá evitar-se o efeito estroboscópico pelos sistemas de compensação mais usuais. Caso a compensação não possa ser individual deverá efectuar-se por conjunto de armaduras; e) Todas as armaduras deverão possuir um alto factor de potência, superior a 0,9, devendo os circuitos de iluminação apresentar um factor de potência mínimo de 0,85 após a compensação do efeito estroboscópico; f) As lâmpadas fluorescentes a aplicar serão de designada nova geração, do tipo TLD com diâmetro de 26mm e de 36W, todos os módulos, excepto nas instalações sanitárias, onde é permitida a montagem de lâmpadas da cor 33; g) Nas instalações sanitárias deverão as armaduras ser estanques devendo a estanquidade nos buçins de entrada ou saída de cabo ser perfeita, para evitar condensações interiores. <p>General Normative Conditions (see point 9.1)</p> <p>Fluorescent Armors</p> <ul style="list-style-type: none"> a) All fluorescent armatures should be of the industrial ruler type with reflective flaps. b) The reinforcement bodies, as well as the reflective flaps, must have been treated against corrosion, painted white and dried in an oven. c) Ballasts must have minimal losses, must be non-noisy and of the type recommended for the indicated lamps. d) The stroboscopic effect should be avoided by the most usual compensation systems. If the compensation cannot be individual, it must be carried out by a set of reinforcements. e) All armatures must have a high-power factor, greater than 0.9, and the lighting circuits must have a minimum power factor of 0.85 after compensation for the stroboscopic effect. f) The fluorescent lamps to be applied should be of the designated new generation, of the TLD type with a diameter of 26mm and 36W, all modules, except in the sanitary installations, where the assembly of lamps of color 33 is allowed. g) In the sanitary installations, the reinforcements must be watertight and the watertightness of the cable entry or exit glands must be perfect, in order to avoid interior condensation. 	N/A
9,10	<p>Fornecimento e instalação das Terras de Protecção.</p> <p>Supply and installation of Protective Lands</p>	<p>Condições Gerais Normativas (ver ponto 9,1)</p> <p>Terra de Protecção</p> <ul style="list-style-type: none"> a) A terra de protecção será construída com base em duas placas quadradas com 1m² e 1mm de espessura como valores mínimas para as superfícies de dissipação; b) A interligação dos eléctrodos de terra entre si e a instalação em geral será feita com um condutor de cobre com a secção indicada nos desenhos, sendo nu entre eléctrodos e isolamento dos eléctrodos ao quadro; c) De acordo com o estudo efectuado prevê-se que a resistência desta terra não seja superior a 10 ohm; 	N/A

		<p>d) De qualquer forma é condição prioritária, que a terra de protecção não ultrapasse o valor de 15 ohm, competindo ao empreiteiro, ajustar as condições da sua instalação a este factor determinante;</p> <p>e) Os eléctrodos serão enterrados de forma a que a sua parte superior se situe a um mínimo de 0,80m do pavimento, após substituição;</p> <p>f) A distância entre os eléctrodos deverá respeitar os regulamentos em vigor e muito em particular no que refere à tensão do degrau;</p> <p>g) Deverão ser deixados os tubos que permitam a rega da terra envolvente dos eléctrodos;</p> <p>h) A desmontagem da área onde se pretende estabelecer os eléctrodos e a sua reposição são parte integrante da empreitada, devendo ter-se particular cuidado durante a escavação, com a eventual existência de tubagens e cabos de energia, que deverão ser previamente sondados;</p> <p>i) Todas as estruturas metálicas dos quadros deverão ser ligadas à terra. Não é permitido o uso de terminais de aperto como conectores de terra e deverá em todos os casos ser instalado um barramento de terra com aperto por terminais e parafuso, , aceitando apenas a ligação de um condutor para cada furo do barramento;</p> <p>j) De acordo com os regulamentos, o corpo das armaduras de iluminação, será a terra de protecção;</p> <p>k) Será deixado um terminal amovível de terra a fim de se efectuar as medições periódicas exigidas pelo regulamento;</p> <p>l) Serão cumpridas na instalação deste sistema, todas as especificações impostas pelos regulamentos de segurança.</p> <p>General Normative Conditions (see point 9.1)</p> <p>Protective Land</p> <p>a) The protective earth should be built on the basis of two square plates with 1m² and 1mm thick as minimum values for the dissipation surfaces.</p> <p>b) The interconnection of the earth electrodes between them and the installation in general should be made with a copper conductor with the section indicated in the drawings, being bare between the electrodes and insulating the electrodes to the frame.</p> <p>c) According to the study carried out, it is expected that the resistance of this earth should not exceed 10 ohms.</p> <p>d) In any case, it is a priority condition that the protective earth does not exceed the value of 15 ohm, it being up to the contractor to adjust the conditions of its installation to this determining factor.</p> <p>e) The electrodes should be buried in such a way that their upper part is located at least 0.80m from the floor, after replacement.</p> <p>f) The distance between the electrodes must comply with the regulations in force and in particular with regard to the step voltage.</p> <p>g) The tubes that allow the watering of the earth surrounding the electrodes must be left.</p> <p>h) The disassembly of the area where the electrodes are to be established and their replacement are an integral part of the contract, and particular care must be taken during the excavation, with the possible existence of pipes and energy cables, which must be probed beforehand;</p> <p>i) All metal frame structures must be earthed. The use of tightening terminals as earth connectors is not allowed and, in all cases, an earth busbar with tightening by terminals and screws must be installed, only accepting the connection of a conductor for each hole in the busbar.</p> <p>j) According to the regulations, the body of the lighting fixtures should be the protective earth.</p> <p>k) A removable earth terminal should be left in order to carry out the periodic measurements required by the regulation.</p> <p>l) When installing this system, all specifications imposed by safety regulations should be met.</p>	
--	--	---	--

10,0	INSTALAÇÕES SANITÁRIAS/SANITARY FA		
10,1	Esgoto de Águas Residuais/Waste water		
	<p>Fornecimento e aplicação de Tubos de águas residuais incluindo curvas e acessórios de ligação.</p> <p>Supply and application of wastewater pipes including bends and connection accessories.</p>	<p>Tubagem em P.V.C.</p> <p>a) A tubagem a ser utilizada segundo o traçado e os diâmetros indicados no projecto serão em P.V.C. rígido, para uma classe de pressão mínima normal de 0,60 MPa (~ 6 Kgf/cm²);</p> <p>b) As juntas de tubos de ponto a ponto em derivação utilizando peças acessórias devem ser sempre efectuadas após imersão em água quente e, fazendo-se o aperto entre as peças por meio de braçadeiras metálicas de zinco;</p> <p>c) Antes de o tubo ser tapado, deve ser testado por um processo adequado para ser submetido à aprovação da Fiscalização.</p> <p>P.V.C. piping</p> <p>a) The piping to be used according to the layout and diameters indicated in the project should be in P.V.C. rigid, for a normal minimum pressure class of 0.60 MPa (~ 6 Kgf/cm²).</p> <p>b) The end-to-end pipe joints in by-pass using accessory parts must always be carried out after being immersed in hot water, tightening the parts by means of metallic zinc clamps.</p> <p>c) Before the pipe is plugged, it must be tested by an appropriate process to be submitted for approval by the Inspection.</p>	N/A
	<p>Fornecimento e aplicação de Tubos de Ventilação incluindo curvas, respirador e acessórios de ligação.</p> <p>Supply and application of Ventilation Tubes including bends, respirator and connection accessories.</p>		
	<p>Execução de Caixas de Visita.</p> <p>Execution of Visit Boxes.</p>	<p>Caixas de Inspeção e ligação</p> <p>a) A caixa deverá ter dimensões interiores de 0,60x0,60m, em blocos de cimento enchidos com betão B15, colocadas em base de betão B20 armado (#Ø8@15) com 0,10m espessura e com tampa apoiada em paredes devidamente acabada com espessura de 0,08m e armadura igual da base. A cobertura deverá ter um segurador em armadura Ø10 para a sua inspeção;</p> <p>b) O fundo da caixa, na continuidade à rede de esgoto que à mesma se vai ligar, é formado por um enchimento de betão em U constituindo as caleiras de circulação, de largura e altura igual ao diâmetro da canalização respectiva. A parte da base da câmara, não utilizada como caleira, deverá ter sempre um declive de 20% para contrariar as disposições;</p> <p>c) Todo o interior das caixas deverá ser rebocado com argamassa de 500 Kg/m³ de cimento e com 2cm de espessura e queimado a colher;</p> <p>d) As caixas deverão, no final, ser estanques aos gases e líquido.</p> <p>Inspection and Connection Boxes</p> <p>a) The box must have interior dimensions of 0.60x0.60m, in cement blocks filled with lean B15 concrete, supported on a reinforced B20 concrete base (#Ø8@15) with 0.10m thickness and with a lid properly supported on walls finished with a thickness of 0.08m and the same armor as the base. The cover must have a Ø10 armor holder for inspection.</p> <p>b) The bottom of the box, continuing the sewage network that should be connected to it, is formed by a U-shaped concrete filling constituting the circulation gutters, with a width and height equal to the diameter of the respective channel. The part of the base of the chamber, not used as a gutter, must always have a slope of 20% to counteract provisions.</p> <p>c) The entire interior of the boxes must be plastered with mortar of 500 kg/m³ of cement and 2cm thick and burnt with a spoon.</p> <p>d) The boxes must, in the end, be gas and liquid tight.</p>	N/A
10,2	Distribuição de Água/Water Distribution		

	<p>Fornecimento e colocação de Tubos de abastecimento incluindo acessórios de ligação.</p> <p>Supply and laying of supply pipes including connecting accessories.</p>	<p>Tubagem em IPS</p> <p>a) A tubagem terá os diâmetros indicados no projecto e será em tubo IPS, série reforçada, desenhada e sem costura, para água sob pressão, do melhor fabrico. A tubagem seguirá o traçado indicado nos desenhos do projecto;</p> <p>b) A tubagem seguirá no pavimento, em valas ou em roços, e será coberta por argamassa de cimento ao traço 1:4; a tubagem é previamente envolvida em papel de saco de cimento;</p> <p>c) Na tubagem que seguir em valas aplicar-se-á, antes do tapamento da vala, duas camadas de produto betuminoso apropriado.</p> <p>IPS piping</p> <p>a) The piping should have the diameters indicated in the project and should be in IPS tube, reinforced series, drawn and seamless, for pressurized water, of the best manufacture. The piping should follow the route indicated in the drawn parts of the project.</p> <p>b) The piping should continue on the pavement, in ditches or in trenches, and should be covered with cement mortar with a 1:4 trace; the tubing is previously wrapped in cement bag paper.</p> <p>c) In the piping that follows in trenches, apply two coats of appropriate bituminous product before the trench is closed.</p>	N/A
	<p>Fornecimento e montagem de Válvulas de Seccionamento</p> <p>Supply and assembly of Sectioning Valves</p>	<p>Válvulas de Seccionamento</p> <p>a) A válvula será de obturador de cunha, cromada do tipo COBRA ou qualidade equivalente mediante aprovação pela Fiscalização;</p> <p>b) Será colocada nos locais indicados nos desenhos detalhados e terá o diâmetro de tubagem com o qual é inserida;</p> <p>c) O punho terá uma seta indicando a posição do fuso.</p> <p>Sectioning Valves</p> <p>a) The valve should have a wedge plug, COBRA type chrome or equivalent quality upon approval by the Inspection.</p> <p>b) It should be placed in the places indicated in the detailed drawings and should have the pipe diameter with which it is inserted.</p> <p>c) The handle should have an arrow indicating the position of the spindle.</p>	N/A
	<p>Fornecimento e montagem de Torneira de Serviço incluindo acessórios de fixação.</p> <p>Supply and assembly of Service Faucet including fixing accessories.</p>	<p>Torneiras de Serviço</p> <p>a) A torneira será de Lavatorio de Mesa, cromada do tipo COBRA ou qualidade equivalente mediante a aprovação da Fiscalização;</p> <p>b) A cabeça multifacetada ou em forma de estrela.</p> <p>Service Taps</p> <p>a) The faucet should be a Table Lavatorio, chrome-plated type COBRA or equivalent quality upon approval by the Inspection.</p> <p>b) The multicanus or star-shaped head.</p>	N/A
10,3	Aparelhos Sanitários/Sanitary Devices		
	<p>Fornecimento e montagem de Sanita com tampas de abrir em fibra e Autoclismo incluindo acessórios de fixação.</p> <p>Supply and assembly of toilet with fiber lids and flush toilet including fixing accessories.</p>	<p>Sanitas com Autoclismo</p> <p>a) A sanita e o autoclismo serão brancos em loiça cerâmica vitrificada do tipo VAAL ou qualidade equivalente após a aprovação da Fiscalização;</p> <p>b) A sanita será de sifão tubular incorporado com descarga pelo fundo;</p> <p>c) O autoclismo será baixo e a sua ligação à sanita será feita por tubo de P.V.C. rígido de diâmetro de 1 1/4";</p> <p>d) O autoclismo será ligado à rede de água por um tubo flexível de diâmetro de 3/4".</p> <p>e) As pias turcas e o autoclismo serão brancas em loiça cerâmica vitrificada do tipo VAAL ou qualidade equivalente após a aprovação da Fiscalização;</p> <p>f) Os autoclismos para as pias turcas serão de material plástico altamente resistentes.</p>	N/A

		Toilets with Flush a) The toilet and the cistern should be white in VAAL type glazed ceramic ware or equivalent quality upon approval by the Inspection. b) The toilet should have a built-in tubular siphon with flushing from the bottom. c) The toilet should be low and its connection to the toilet should be done by a PVC pipe. 1 1/4" diameter rigid. d) The cistern should be connected to the water mains by a flexible tube with a diameter of 3/4". e) The Turkish sinks and the cistern should be white in VAAL type glazed ceramic crockery or equivalent quality upon approval by the Inspection. f) The cisterns for Turkish sinks should be made of highly resistant plastic material.	
	Fornecimento e montagem de Urinol incluindo todos os acessórios de fixação. Supply and assembly of Urinal including all fixing accessories.	Urinol a) O urinol será feito de aço inoxidável e deverá ser submetido à aprovação da Fiscalização; c) A ligação do urinol à parede será feita de modo a se obter uma perfeita estanqueidade; d) A válvula de descarga será cromada com botão de pressão do tipo COBRA; e) O sifão será do tipo de garrafa de 1"1/4 cromada. As juntas de ligação deverão observar uma estanqueidade perfeita e o sifão será instalado de modo a ser rigorosamente vertical. Urinal a) The urinal should be made of stainless steel and must be submitted for approval by the Inspection. c) The connection of the urinal to the wall should be done in order to obtain perfect watertightness. d) The discharge valve should be chromed with a COBRA type push button. e) The siphon should be of the 1"1/4 chrome-plated bottle type. The connection joints must observe perfect watertightness and the siphon should be installed in such a way as to be strictly vertical.	N/A
	Fornecimento e montagem de Lavatório de Mão incluindo todos os acessórios de fixação. Supply and assembly of Hand Washbasin including all fixing accessories.	Lavatório de Mão a) O lavatório será feito de em betão armado e revestido em azulejo; b) A ligação do lavatório à parede será feita de modo a se obter uma perfeita estanqueidade, e de modo a que a água salpicada reflua para o lavatório; c) A válvula de descarga será cromada com aperto por porca, com porca em calçudo, com pistão, corrente e cobertura. A cobertura será em plástico (P.V.C. rígido) e o pistão e a corrente em latão cromado; d) O sifão será do tipo garrafa cromada de 1"1/4. As juntas de ligação deverão observar uma estanqueidade perfeita e o sifão será instalado de modo a ficar rigorosamente vertical. hand washbasin a) The washbasin should be made of reinforced concrete and covered in tile. b) The connection of the washbasin to the wall should be done so as to obtain perfect watertightness, and so that the splashed water flows back into the washbasin. c) The discharge valve should be chromed with a nut tightening, with a shoe nut, with a piston, chain and cap. The cap should be in plastic (rigid P.V.C.) and the piston and chain in chromed brass. d) The siphon should be of the 1"1/4 chrome-plated bottle type. The connection joints must observe perfect watertightness and the siphon should be installed in such a way as to be strictly vertical.	N/A
10,4	Descarga/discharge		

	<p>Execução de uma Fossa Séptica e Drenagem.</p> <p>Execution of a Septic Tank and Drain.</p>	<p>Fossa e Drenagem</p> <ul style="list-style-type: none"> a) A Capacidade da fossa e da drenagem deverá ter uma capacidade para 100 pessoas; b) A fossa deverá ter dois compartimentos de acordo com a legislação nacional; c) A estrutura da fossa será em betão armado (betão B20) para uma base com 0,20m de espessura (com malha dupla Ø10 com espaçamento de 0,15) e uma laje superior com 0,15m (com espaçamento de malha única Ø10 a 0,15) ambos; deverão ser projectados pilares (8 distribuídos uniformemente) e uma viga de coroamento com a dimensão de 0,20x0,20m; d) O revestimento será em blocos amolecidos com betão B15; e) O interior da fossa deverá ser rebocado ao traço 1:4 e impermeabilizado com pintura a base de epoxi para este tipo de ambiente e o produto deverá ser aprovado pela Fiscalização; f) A fundação da fossa devera ter um enrocamento de 0,10m de espessura; g) O dreno terá uma profundidade de 2 m revestido com blocos de 0,15m amolecidos e uma laje superior com malha de ferro de Ø8 com 0,10m de distância e 0,10m de espessura; h) A localização da fossa e da drenagem deverá ser aprovada pela Fiscalização. <p>Pit and Drain</p> <ul style="list-style-type: none"> a) The capacity of the pit and drain must have a capacity for 100 people. b) The pit must have two compartments in accordance with national legislation. c) The structure of the pit should be in reinforced concrete (B20 concrete) for a base with 0.20m thick (with double mesh Ø10 with a spacing of 0.15) and an upper slab with 0.15m (with a single mesh Ø10 spacing at 0,15) both; Pillars (8 evenly distributed) and a crowning beam with a dimension of 0.20x0.20m should be designed. d) The coating should be in blocks softened with B15 concrete. e) The inside of the pit must be plastered to a 1:4 line and waterproofed with epoxy-based paint for this type of environment and the product must be approved by the Inspection. f) The foundation of the pit must have a 0.10m thick rockfill. g) The drain should have a depth of 2 m covered with blocks of 0.15 m softened and an upper slab with Ø8 iron mesh 0.10 m apart and 0.10 m thick. h) The location of the pit and drain must be approved by the Inspection. 	N/A
--	---	---	-----

SECTION 5B: OTHER RELATED REQUIREMENTS

N/A

SECTION 6: RETURNABLE BIDDING FORMS / CHECKLIST

This form serves as a checklist for preparation of your Bid. Please complete the Returnable Bidding Forms in accordance with the instructions in the forms and return them as part of your Bid submission. No alteration to format of forms shall be permitted and no substitution shall be accepted.

Before submitting your Bid, please ensure compliance with the Bid Submission instructions of the BDS 22.

Technical Bid:

Have you duly completed all the Returnable Bidding Forms?	
▪ Form A: Bid Submission Form	<input type="checkbox"/>
▪ Form B: Bidder Information Form	<input type="checkbox"/>
▪ Form C: Joint Venture/Consortium/ Association Information Form	<input type="checkbox"/>
▪ Form D: Qualification Form	<input type="checkbox"/>
▪ Form E: Format of Technical Bid/Bill of Quantities	<input type="checkbox"/>
▪ Form G: Form of Bid Security	
▪ [Add other forms as necessary]	<input type="checkbox"/>
Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?	<input type="checkbox"/>

Price Schedule:

▪ Form F: Price Schedule Form	<input type="checkbox"/>
-------------------------------	--------------------------

FORM A: BID SUBMISSION FORM

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

We, the undersigned, offer to supply the goods and related services required for [Insert Title of goods and services] in accordance with your Invitation to Bid No. [Insert ITB Reference Number] and our Bid. We hereby submit our Bid, which includes this Technical Bid and Price Schedule.

Our attached Price Schedule is for the sum of [Insert amount in words and figures and indicate currency].

We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium /Association members or subcontractors or suppliers for any part of the contract:

- a) is not under procurement prohibition by the United Nations, including but not limited to prohibitions derived from the Compendium of United Nations Security Council Sanctions Lists;
- b) have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization;
- c) have no conflict of interest in accordance with Instruction to Bidders Clause 4;
- d) do not employ, or anticipate employing, any person(s) who is, or has been a UN staff member within the last year, if said UN staff member has or had prior professional dealings with our firm in his/her capacity as UN staff member within the last three years of service with the UN (in accordance with UN post-employment restrictions published in ST/SGB/2006/15);
- e) have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future;
- f) undertake not to engage in proscribed practices, including but not limited to corruption, fraud, coercion, collusion, obstruction, or any other unethical practice, with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN and we embrace the principles of the United Nations Supplier Code of Conduct and adhere to the principles of the United Nations Global Compact.

We declare that all the information and statements made in this Bid are true and we accept that any misinterpretation or misrepresentation contained in this Bid may lead to our disqualification and/or sanctioning by the UNDP.

We offer to supply the goods and related services in conformity with the Bidding documents, including the UNDP General Conditions of Contract and in accordance with the Schedule of Requirements and Technical Specifications.

Our Bid shall be valid and remain binding upon us for the period specified in the Bid Data Sheet.

We understand and recognize that you are not bound to accept any Bid you receive.

I, the undersigned, certify that I am duly authorized by [Insert Name of Bidder] to sign this Bid and bind it should UNDP accept this Bid.

Name: _____

Title: _____

Date: _____

Signature: _____

[Stamp with official stamp of the Bidder]

FORM B: BIDDER INFORMATION FORM

Legal name of Bidder	[Complete]
Legal address	[Complete]
Year of registration	[Complete]
Bidder's Authorized Representative Information	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
Are you a UNGM registered vendor?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, [insert UGNM vendor number]
Are you a UNDP vendor?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, [insert UNDP vendor number]
Countries of operation	[Complete]
No. of full-time employees	[Complete]
Quality Assurance Certification (e.g. ISO 9000 or Equivalent) <i>(If yes, provide a Copy of the valid Certificate):</i>	[Complete]
Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? <i>(If yes, provide a Copy of the valid Certificate):</i>	[Complete]
Does your Company have a written Statement of its Environmental Policy? <i>(If yes, provide a Copy)</i>	[Complete]
Does your organization demonstrates significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies or membership of trade institutions promoting such issues	[Complete]
Is your company a member of the UN Global Compact	[Complete]

Contact person that UNDP may contact for requests for clarifications during Bid evaluation	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
Please attach the following documents:	<ul style="list-style-type: none"> ▪ Company Profile, which should <u>not</u> exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods and/or services being procured ▪ Certificate of Incorporation/ Business Registration ▪ Tax Registration/Payment Certificate issued by the Internal Revenue Authority evidencing that the Bidder is updated with its tax payment obligations, or Certificate of Tax exemption, if any such privilege is enjoyed by the Bidder ▪ Trade name registration papers, if applicable ▪ Quality Certificate (e.g., ISO, etc.) and/or other similar certificates, accreditations, awards and citations received by the Bidder, if any ▪ Environmental Compliance Certificates, Accreditations, Markings/Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-efficient equipment, reduced carbon emission, etc.), either in its business practices or in the goods it manufactures ▪ Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder ▪ Certification or authorization to act as Agent on behalf of the Manufacturer, or Power of Attorney. ▪ Export Licenses, if applicable ▪ Local Government permit to locate and operate in assignment location, if applicable ▪ Official Letter of Appointment as local representative, if Bidder is submitting a Bid on behalf of an entity located outside the country

FORM C: JOINT VENTURE/CONSORTIUM/ASSOCIATION INFORMATION FORM

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

To be completed and returned with your Bid if the Bid is submitted as a Joint Venture/Consortium/Association.

No	Name of Partner and contact information <i>(address, telephone numbers, fax numbers, e-mail address)</i>	Proposed proportion of responsibilities (in %) and type of goods and/or services to be performed
1	[Complete]	[Complete]
2	[Complete]	[Complete]
3	[Complete]	[Complete]

Name of leading partner (with authority to bind the JV, Consortium, Association during the ITB process and, in the event a Contract is awarded, during contract execution)	[Complete]
--	------------

We have attached a copy of the below referenced document signed by every partner, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture:

☐ Letter of intent to form a joint venture **OR** ☐ JV/Consortium/Association agreement

We hereby confirm that if the contract is awarded, all parties of the Joint Venture/Consortium/Association shall be jointly and severally liable to UNDP for the fulfillment of the provisions of the Contract.

Name of partner: _____ Name of partner: _____

Signature: _____ Signature: _____

Date: _____ Date: _____

Name of partner: _____ Name of partner: _____

Signature: _____ Signature: _____

Date: _____ Date: _____

FORM D: ELIGIBILITY AND QUALIFICATION FORM

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

If JV/Consortium/Association, to be completed by each partner.

History of Non- Performing Contracts

<input type="checkbox"/> Non-performing contracts did not occur during the last 3 years			
<input type="checkbox"/> Contract(s) not performed in the last 3 years			
Year	Non- performed portion of contract	Contract Identification	Total Contract Amount (current value in US\$)
		Name of Client: Address of Client: Reason(s) for non-performance:	

Litigation History (including pending litigation)

<input type="checkbox"/> No litigation history for the last 3 years			
<input type="checkbox"/> Litigation History as indicated below			
Year of dispute	Amount in dispute (in US\$)	Contract Identification	Total Contract Amount (current value in US\$)
		Name of Client: Address of Client: Matter in dispute: Party who initiated the dispute: Status of dispute: Party awarded if resolved:	

Previous Relevant Experience

Please list only previous similar assignments successfully completed in the last 3 years.

List only those assignments for which the Bidder was legally contracted or sub-contracted by the Client as a company or was one of the Consortium/JV partners. Assignments completed by the Bidder's individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Bidder should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by UNDP.

Project name & Country of Assignment	Client & Reference Contact Details	Contract Value	Period of activity and status	Types of activities undertaken

Bidders may also attach their own Project Data Sheets with more details for assignments above.

☐ Attached are the Statements of Satisfactory Performance from the **Top 3 (three) Clients** or more.

Financial Standing

Annual Turnover for the last 3 years	Year	USD
	Year	USD
	Year	USD
Latest Credit Rating (if any), indicate the source		

Financial information (in US\$ equivalent)	Historic information for the last 3 years		
	Year 1	Year 2	Year 3
	<i>Information from Balance Sheet</i>		
Total Assets (TA)			
Total Liabilities (TL)			
Current Assets (CA)			
Current Liabilities (CL)			
	<i>Information from Income Statement</i>		
Total / Gross Revenue (TR)			
Profits Before Taxes (PBT)			
Net Profit			
Current Ratio			

☐ Attached are copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition:

- Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies;
- Historic financial statements must be audited by a certified public accountant;
- Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.

FORM E: FORMAT OF TECHNICAL BID

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

The Bidder's Bid should be organized to follow this format of the Technical Bid. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance, but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same will be viewed as non-responsive.

SECTION 1: Bidder's qualification, capacity and expertise

- 1.1 General organizational capability which is likely to affect implementation: management structure, financial stability and project financing capacity, project management controls, extent to which any work would be subcontracted (if so, provide details).
- 1.2 Relevance of specialized knowledge and experience on similar engagements done in the region/country.
- 1.3 Quality assurance procedures and risk mitigation measures.
- 1.4 Organization's commitment to sustainability.

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 requirements/specifications. All important aspects should be addressed in sufficient detail.

- 2.1 A detailed description of how the Bidder will deliver the required goods and services, keeping in mind the appropriateness to local conditions and project environment. Details how the different service elements shall be organized, controlled and delivered.
- 2.2 Explain whether any work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.
- 2.3 The bid shall also include details of the Bidder's internal technical and quality assurance review mechanisms.
- 2.4 Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.
- 2.5 Demonstrate how you plan to integrate sustainability measures in the execution of the contract.

Goods and services to be Supplied and Technical Specifications	Your response			
	Compliance with technical specifications	Delivery Date	Quality Certificate/Exp	Comments

	Yes, we comply	No, we cannot comply <i>(indicate discrepancies)</i>	<i>(confirm that you comply or indicate your delivery date)</i>	ort Licenses, etc. <i>(indicate all that apply and attach)</i>	
All technical Specification specified in the Scope of Works (SOW)					

SECTION 3: Management Structure and Key Personnel

- 3.1 Describe the overall management approach toward planning and implementing the project. Include an organization chart for the management of the project describing the relationship of key positions and designations. Provide a spreadsheet to show the activities of each personnel and the time allocated for his/her involvement.
- 3.2 Provide CVs for key personnel that will be provided to support the implementation of this project using the format below. CVs should demonstrate qualifications in areas relevant to the scope of goods and/or services.

Format for CV of Proposed Key Personnel

Name of Personnel	[Insert]
Position for this assignment	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]
Education/ Qualifications	<i>[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]</i> [Insert]
Professional certifications	<i>[Provide details of professional certifications relevant to the scope of goods and/or services]</i> ▪ Name of institution: [Insert] ▪ Date of certification: [Insert]
Employment Record/ Experience	<i>[List all positions held by personnel (starting with present position, list in reverse order), giving dates, names of employing organization, title of position held and location of employment. For experience in last five years, detail the type of activities performed, degree of responsibilities, location of assignments and any other information or professional experience considered pertinent for this assignment.]</i> [Insert]
References	<i>[Provide names, addresses, phone and email contact information for two (2) references]</i> Reference 1: [Insert] Reference 2: [Insert]

I, the undersigned, certify that to the best of my knowledge and belief, the data provided above correctly describes my qualifications, my experiences, and other relevant information about myself.

Signature of Personnel

Date (Day/Month/Year)

FORM F: PRICE SCHEDULE FORM

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

Bidders are required to fill the Bill of Quantities they intend to present and offer for; using the format provided.
The Bill of Quantities must list costs and prices for all the quantities and works requested.

N.B. Incomplete Bill of Quantities will be disregarded.

Currency of the Bid: [Insert Currency]

Name of Bidder:	_____
Authorised signature:	_____
Name of authorised signatory:	_____
Functional Title:	_____

FORM G: FORM OF BID SECURITY

**Bid Security must be issued using the official letterhead of the Issuing Bank.
Except for indicated fields, no changes may be made on this template.**

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

WHEREAS [Name and address of Bidder] (hereinafter called "the Bidder") has submitted a Bid to UNDP dated [Click here to enter a date.](#) to execute goods and/or services [Insert Title of Goods and/or Services] (hereinafter called "the Bid"):

AND WHEREAS it has been stipulated by you that the Bidder shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security if the Bidder:

- a) Fails to sign the Contract after UNDP has awarded it;
- b) Withdraws its Bid after the date of the opening of the Bids;
- c) Fails to comply with UNDP's variation of requirement, as per ITB instructions; or
- d) Fails to furnish Performance Security, insurances, or other documents that UNDP may require as a condition to rendering the contract effective.

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

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Bidder, 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 Price Bid 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 up to 30 days after the final date of validity of bids.

SIGNATURE AND SEAL OF THE GUARANTOR BANK

Signature: _____

Name: _____

Title: _____

Date: _____

Name of Bank _____

Address _____

[Stamp with official stamp of the Bank]