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Resilient nations.*

# **INVITATION TO BID**

## **Construction of Solid Waste Transfer Station in Bozova/Şanlıurfa**

ITB No.: UNDP-TUR-ITB(MC2)-2018/04

Project: Turkey Resilience Project in Response to the Syria Crisis: Municipal Service Delivery (C2)

Country: Turkey

Issued on: 19 June 2018

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## Section 1. Letter of Invitation

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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:

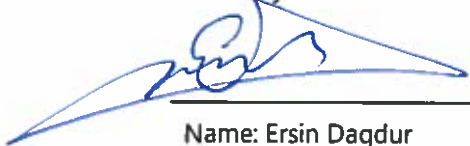
- Section 1: This Letter of Invitation
- Section 2: Instruction to Bidders
- Section 3: Bid Data Sheet (BDS)
- Section 4: Evaluation Criteria
- Section 5: Schedule of Requirements and Technical Specifications
- Section 6: Returnable Bidding Forms
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  - 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

If you are interested in submitting a Bid in response to this ITB, please prepare your Bid in accordance with the requirements and procedure as set out in this ITB and submit it by the Deadline for Submission of Bids set out in Bid Data Sheet.

Please acknowledge receipt of this ITB by sending an email to [ersin.dagdur@undp.org](mailto:ersin.dagdur@undp.org), indicating whether you intend to submit a Bid or otherwise. You may also utilize the "Accept Invitation" function in eTendering system, where applicable. This will enable you to receive amendments or updates to the ITB. Should you require further clarifications, kindly communicate with the contact person/s identified in the attached Data Sheet as the focal point for queries on this ITB.

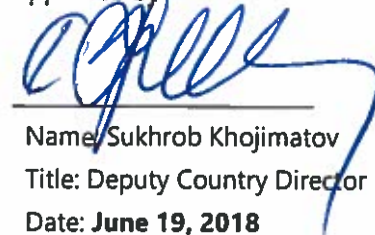
UNDP looks forward to receiving your Bid and thank you in advance for your interest in UNDP procurement opportunities.

Issued by:



Name: Ersin Dagdur  
Title: Procurement Officer  
Date: **June 19, 2018**

Approved by:



Name: Sukhrob Khojimatov  
Title: Deputy Country Director  
Date: **June 19, 2018**

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## 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 <a href="https://popp.undp.org/SitePages/POPPBSUnit.aspx?TermID=254a9f96-b883-476a-8ef8-e81f93a2b38d">https://popp.undp.org/SitePages/POPPBSUnit.aspx?TermID=254a9f96-b883-476a-8ef8-e81f93a2b38d</a></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 (<a href="http://www.ungm.org">www.ungm.org</a>). 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 <a href="http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_andinvestigation.html#anti">http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_andinvestigation.html#anti</a></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 <a href="http://www.un.org/depts/ptd/pdf/conduct_english.pdf">http://www.un.org/depts/ptd/pdf/conduct_english.pdf</a></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</p>



		these organizations.
	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"> <li>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;</li> <li>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</li> <li>c) Are found to be in conflict for any other reason, as may be established by, or at the discretion of UNDP.</li> </ul>
	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"> <li>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</li> <li>b) All other circumstances that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices.</li> </ul> <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"> <li>a) Documents Establishing the Eligibility and Qualifications of the Bidder;</li> <li>b) Technical Bid;</li> <li>c) Price Schedule;</li> <li>d) Bid Security, if required by BDS;</li> <li>e) Any attachments and/or appendices to the Bid.</li> </ul>
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	10.1 The Bidder is required to submit a Technical Bid using the Standard Forms and templates provided in Section 6 of the ITB. 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. 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. 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.
11. Price Schedule	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. 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.
12. Bid Security	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. 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>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"> <li>a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or;</li> <li>b) In the event the successful Bidder fails: <ul style="list-style-type: none"> <li>i. to sign the Contract after UNDP has issued an award; or</li> <li>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.</li> </ul> </li> </ul>
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"> <li>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</li> <li>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.</li> </ul>
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</p>



	<p>should clearly differentiate between:</p> <ul style="list-style-type: none"> <li>a) Those that were undertaken together by the JV, Consortium or Association; and</li> <li>b) Those that were undertaken by the individual entities of the JV, Consortium or Association.</li> </ul> <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>
<b>15. Only One Bid</b>	<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"> <li>a) they have at least one controlling partner, director or shareholder in common; or</li> <li>b) any one of them receive or have received any direct or indirect subsidy from the other/s; or</li> <li>c) they have the same legal representative for purposes of this ITB; or</li> <li>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;</li> <li>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.</li> </ul>
<b>16. Bid Validity Period</b>	<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>
<b>17. Extension of Bid Validity Period</b>	<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> <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.</p>

<b>18. Clarification of Bid (from the Bidders)</b>	<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>
<b>19. Amendment of Bids</b>	<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>
<b>20. Alternative Bids</b>	<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>
<b>21. Pre-Bid Conference</b>	<p>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.</p>

## 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"> <li>Bear the name of the Bidder;</li> <li>Be addressed to UNDP as specified in the BDS; and</li> <li>Bear a warning not to open before the time and date for Bid opening as specified in the BDS.</li> </ol> <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"> <li>Electronic files that form part of the Bid must be in accordance with the format and requirements indicated in BDS;</li> <li>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.</li> </ol> <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:  <a href="http://www.undp.org/content/undp/en/home/operations/procurement/business/procurement-notice/resources/">http://www.undp.org/content/undp/en/home/operations/procurement/business/procurement-notice/resources/</a></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> <p>23.2 UNDP shall not consider any Bid that is received after the deadline for the</p>

	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> <ol style="list-style-type: none"> <li>Preliminary Examination including Eligibility</li> <li>Arithmetical check and ranking of bidders who passed preliminary examination by price.</li> <li>Qualification assessment (if pre-qualification was not done)</li> <li>Evaluation of Technical Bids</li> </ol>

	<p>b) Evaluation of prices</p> <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"> <li>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;</li> <li>b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments,</li> <li>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;</li> <li>d) They are able to comply fully with the UNDP General Terms and Conditions of Contract;</li> <li>e) They do not have a consistent history of court/arbitral award decisions against the Bidder; and</li> <li>f) They have a record of timely and satisfactory performance with their clients.</li> </ul>
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"> <li>a) Verification of accuracy, correctness and authenticity of information provided by the Bidder;</li> <li>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;</li> <li>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;</li> <li>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;</li> </ul>

	<p>e) Physical inspection of the Bidder's offices, branches or other places where business transpires, with or without notice to the Bidder;</p> <p>f) Other means that UNDP may deem appropriate, at any stage within the selection process, prior to awarding the contract.</p>
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, Reparable 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> <p>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;</p> <p>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</p> <p>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.</p> <p>34.4 If the Bidder does not accept the correction of errors made by UNDP, its Bid shall be rejected.</p>



## 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 <a href="http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html">http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html</a>
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 <a href="https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Solicitation_Performance%20Guarantee%20Form.docx&amp;action=default">https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Solicitation_Performance%20Guarantee%20Form.docx&amp;action=default</a> 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 available at <a href="https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Contract%20Management%20Payment%20">https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Contract%20Management%20Payment%20</a>

	<a href="#">and%20Taxes_Advanced%20Payment%20Guarantee%20Form.docx&amp;action=default</a>
43. Liquidated Damages	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.
44. Payment Provisions	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.
45. Vendor Protest	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: <a href="http://www.undp.org/content/undp/en/home/procurement/business/protest-and-sanctions.html">http://www.undp.org/content/undp/en/home/procurement/business/protest-and-sanctions.html</a>
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 <a href="http://www.un.org/en/ga/search/view_doc.asp?symbol=ST/SGB/2006/15&amp;referer">http://www.un.org/en/ga/search/view_doc.asp?symbol=ST/SGB/2006/15&amp;referer</a></p>

### Section 3. Bid Data Sheet

The following data for the civil works 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
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	Will not be conducted  The bidders are strongly advised to visit and examine the Site of Work and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site are at the bidder's own expense.
5	16	Bid Validity Period	90 days
6	12	Bid Security	Required in the amount of USD 10,000  Acceptable Forms of Bid Security <ul style="list-style-type: none"> <li>▪ Bank Guarantee (See Section 8 for template)</li> <li>▪ Any Bank-issued Check / Cashier's Check / Certified Check</li> </ul> Validity: 120 days from the last day of Bid submission. Bid Security of unsuccessful Bidders shall be returned.
7	42	Advanced Payment upon signing of contract	Not Allowed
8	43	Liquidated Damages	Will be imposed as follows: Percentage of contract price per week of delay: 1 % Max. number of weeks of delay is 10, after which UNDP may terminate the contract.

9	41	Performance Security	Required in the amount of 10 % of the contract amount
10	13	Currency of Bid	United States Dollar
11	18	Deadline for submitting requests for clarifications/ questions	5 days before the submission deadline
12	18	Contact Details for submitting clarifications/questions	Focal Person in UNDP: Ersin Dagdur Address: Yildiz Kule, Yukari Dikmen Mah. Turan Gunes Blv. No:106 06550, Cankaya/Ankara E-mail address: tr.procurement@undp.org
13	18, 19 and 21	Manner of Disseminating Supplemental Information to the ITB and responses/clarifications to queries	Direct communication to prospective Proposers by email and Posting on the following websites:  www.undp.org www.ungm.org www.devbusiness.com www.un.org.tr www.tr.undp.orgdevbusiness.com www.un.org.tr
14	23	Deadline for Physical Submission of Bids to UNDP Premises in Yildiz Kule	July 10, 2018; 5:30 pm (GMT +3)
15	22	Allowable Manner of Submitting Bids	<input checked="" type="checkbox"/> Courier/Hand Delivery The bidders shall make all arrangements and controls to ensure that their bids are physically delivered to UNDP, address of which is given in this ITB by the stated deadline. The bidders are free to make arrangements either for physical dispatch of their proposal or through courier companies, at their own risk. UNDP shall not be responsible for any late physical delivery of the bids to UNDP due to potential delays in courier companies, working/non-working days, official holidays, strikes, etc. Physical dispatch of the bids to UNDP is possible as there is a security desk who will issue delivery receipts on a 24/7 basis.
16	22	Number of copies of Bid	Original: 1 Copies: 3 CD Copies 2 (copies of bid documents including Excel and word documents (Price Schedule, BoQs i.e.)
17	22	Bid Submission Address	United Nations Development Programme Turkey Resilience Project in Response to the Syria Crisis Yildiz Kule 16th Floor, Yukari Dikmen Mah. Turan Gunes Blv. No:106 06550, Cankaya/Ankara UNDP-TUR-ITB(MC2)-2018/04

18	22	Electronic submission (email or eTendering) requirements	N/A
19	25	Date, time and venue for the opening of bid	Date and Time: July 11, 2018 9:30 AM Venue: United Nations Development Programme Turkey Resilience Project in Response to the Syria Crisis Yildiz Kule, Yukari Dikmen Mah. Turan Gunes Blv. No:106 06550, Cankaya/Ankara
20	27, 36	Evaluation Method for the Award of Contract	Lowest priced technically responsive, eligible and qualified bid.
21		Expected date for commencement of Contract	August 27, 2018
22		Maximum expected duration of contract	120 days, starting from the date on which the Contractor will be given Access to the Site and receive a notice from the UNDP Engineer to commence the Works and ending on the date of substantial completion of Works stated in the Certificate of Substantial Completion.  As stated in the General Conditions of Contract for Civil Works, clause 47.1; "Defects Liability Period" is 12 months calculated from the date of completion of the Works stated in the Certificate of Substantial Completion issued by the UNDP Engineer.
23	35	UNDP will award the contract to:	One Proposer Only
24	40	Type of Contract	Contract for Civil Works <a href="http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html">http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html</a>
25	40	UNDP Contract Terms and Conditions that will apply	UNDP General Terms and Conditions for Works <a href="http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html">http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html</a>
26		Other Information Related to the ITB	<i>UN and its subsidiary organs are exempt from all taxes. Therefore, bidders shall prepare their Bids excluding Value Added Tax (VAT). It is the Bidder's responsibility to learn from relevant authorities (Ministry of Finance) and/or to review/confirm published procedures and to consult with a certified financial consultant as needed to confirm the scope and procedures of VAT exemption application as per VAT Law, Ministry of Finance's General Communiqués. The Contractor to be selected shall not be entitled to receive any amount over its Bid price in relation to VAT and/or Special Consumption Tax.</i>

## 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
<b>ELIGIBILITY</b>		
<b>Legal Status</b>	Vendor is a legally registered entity.	Form B: Bidder Information Form
<b>Eligibility</b>	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.	Form A: Bid Submission Form
<b>Conflict of Interest</b>	No conflicts of interest in accordance with Instruction to Bidders clause 4.	Form A: Bid Submission Form
<b>Bankruptcy</b>	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.	Form A: Bid Submission Form
<b>Certificates and Licenses</b>	<ul style="list-style-type: none"> <li>• Power of Attorney,</li> <li>• Official appointment as local representative, if Bidder is submitting a Bid on behalf of an entity located outside the country</li> </ul>	Form B: Bidder Information Form
<b>QUALIFICATION</b>		
<b>History of Non-Performing Contracts<sup>1</sup></b>	Non-performance of a contract did not occur as a result of contractor default for the last 3 years. (reference period to be taken into account: from July 10, 2015 to July 10, 2018)	Form D: Qualification Form

<sup>1</sup> Non-performance, as decided by UNDP, shall include all contracts where (a) non-performance was not challenged by the contractor,



<b>Litigation History</b>	No consistent history of court/arbitral award decisions against the Bidder for the last 3 years. (reference period to be taken into account: from July 10, 2015 to July 10, 2018)	Form D: Qualification Form
<b>Previous Experience</b>	Minimum three years of relevant experience.	Form D: Qualification Form
	Minimum two contracts of similar value, nature and complexity implemented successfully over the last five years. (reference period to be taken into account: from July 10, 2013 to July 10, 2018) <i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i>	Form D: Qualification Form
<b>Financial Standing</b>	Minimum average annual turnover of USD 1,000,000 for the last 3 years (i.e. 2015, 2016, 2017). <i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i>	Form D: Qualification Form
	Bidder must demonstrate the current soundness of its financial standing and indicate its prospective long-term profitability. <i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i>	Form D: Qualification Form
<b>Technical Evaluation</b>	The technical bids shall be evaluated on a pass/fail basis for compliance or non-compliance with the technical specifications identified in the bid document.	Form E: Technical Bid Form
<b>Financial Evaluation</b>	Detailed analysis of the price schedule based on requirements listed in Section 5 and quoted for by the bidders in Form F. Price comparison shall be based on the total estimated price for all the quantities set out in the Bill of Quantities.	Form F: Price Schedule Form

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.

## Section 5a: Statement of Works and Technical Specifications/Bill of Quantities

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### SECTION 5A.1 STATEMENT OF WORKS/TECHNICAL SPECIFICATIONS

#### 1. GENERAL

##### 1.1. INTRODUCTION AND BACKGROUND

UNDP Turkey has repositioned to contribute through four areas: 1) Inclusive and Democratic Governance (IDG); 2) Inclusive and Sustainable Growth (ISG); and 3) Climate Change and Environment (CCE); and 4) Syria Crisis and Resilience Response. In addition to these areas, UNDP Turkey is emphasizing the role of Strategic Partnerships that cut across the entire country programme regionally as well as globally.

As of November 2017, Turkey hosts over 3.2 million Syrian refugees.<sup>2</sup> Syrian refugees are mainly located in the Southeast Anatolia region bordering Syria, but as the crisis continued, the population has expanded to other regions as well. Turkey hosts the largest refugee population in the world and has demonstrated strong national ownership of the response. The Government of Turkey provides a rights-based legal framework through the Temporary Protection regulation, which offers access to education, health care, employment and social security to Syrians. According to the Government of Turkey, it spent 30 billion USD over the last 5 years on the response to the Syria crisis.

Currently, out of the 3.2 million registered Syrian refugees, more than 2.6 million refugees live amongst Turkish host communities.<sup>3</sup> 45% of the 3.2 million refugees are concentrated in 4 provinces in the South East. Within these provinces, there are four municipalities in Turkey that are particularly impacted, each hosting more than 100,000 Syrians. In these cities, the ratio of the Syrian population to that of host communities is higher than 15%, including Kilis, Hatay, Gaziantep and Şanlıurfa.<sup>4</sup> Populations have either reached or exceeded 2023 population projections. Kilis, for instance, hosts almost as many Syrian refugees as its local population.

UNDP supports the Government of Turkey to respond to this large-scale displacement through its Syria Crisis Response and Resilience Programme in Turkey to strengthen the resilience of refugees, host community members, local municipalities and relevant national institutions to cope with and recover from the impact. UNDP's resilience response strategy is to invest in existing national and local systems to ensure they can adequately serve both host and refugee communities.

As part of this programme, UNDP will implement the Turkey Resilience Project in Response to the Syria Crisis (2018-2019) (hereinafter referred to as 'the Project'), funded by the EU Regional Trust Fund in response to the Syrian crisis (EUTF Fund). The Project consists of three main components: Component 1 on Job Creation, Component 2 on Municipal Service Delivery and Component 3 on Adult Language Training. The overall budget for the Project is 50 million euros to be implemented in 2018-2019.

UNDP uses a resilience-based development approach which focuses on investing in existing national and local systems to ensure they can adequately serve both host and Syrian communities. One of the aimed outcomes of the resilience response is to strengthen infrastructure capacities of the Municipalities by construction solid waste transfer stations. Transfer stations may be erected in the central parts of cities in order to keep the transport of solid wastes

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<sup>2</sup> Official data Directorate General for Migration Management, Turkey, November 2017.

<sup>3</sup> Mostly in the South East, particularly Gaziantep, Kilis, Şanlıurfa, and Hatay

<sup>4</sup> DG of Migration Management, TURKSTAT (DGMM 2017)

economically and to avoid any heavy traffic on the transport route. In these stations, the solid wastes being collected with small volume vehicles shall be transferred to bigger vehicles and shall be transported to process and storage areas. The transfer process shall be realized by loading the waste on the waste collection trucks to bigger trucks of higher carrying capacity with aid of a bunker. The discharging/unloading places shall be constructed as closed area in order to avoid environmental pollution in terms of odor, dust, noise and appearance.

A solid waste transfer station is, in plain language, a facility which receives solid wastes from a community and where solid waste is collected and transferred to bigger vehicles in order to transport such solid waste to long distance solid waste storage facilities in a more efficient and economical way.

Transfer stations are generally used for following purposes:

- › The transport of solid waste to a long distance sanitary landfill in an economical way,
- › Increase of the municipality's collecting efficiency,
- › Providing convenient waste disposal places for citizens,
- › Decrease of the heavy traffic in the sanitary landfill.



In the scope of this contract, a solid waste transfer station in Bozova district of Şanlıurfa will be constructed. Station will be mainly composed of administrative/weigh building, waste loading bunker, waste spilling platform, ramps, intra-site roads and landscaping. System of transfer station will be "push pit", waste collection trucks dump their loads directly to a trailer. Station receives waste directly from urban waste collection system.

## 1.2. DEFINITION AND SCOPE OF THE CONTRACT

### 1.2.1. Definition

This contract comprises construction solid waste transfer station in Bozova/Şanlıurfa. System of transfer station will be "push pit", waste collection trucks dump their loads directly to a trailer. Station receives waste directly from urban waste collection system.

### 1.2.2. Scope of Works

In all construction and manufacturing, the provisions of the Technical Specifications shall be obeyed.

Before erection/installation for all materials, the contractor shall request prior approval from the Engineer.

All measurements given on the drawings shall be checked on-site by the Contractor. The Contractor shall prepare the shop drawings accordingly and get the approval of the Engineer before starting the construction.

The Contractor shall be responsible for taking all the necessary health & safety measures according to the relevant legislations until the taking over of the works by the Employer.

The works shall be executed under this contract, as mentioned in detail, in the Technical Specifications and on Drawings, together with all related civil works.

The scope of civil, electrical and mechanical works includes the supply, installation, testing and commissioning.

The works mainly consist of:

- Excavation and filling for all designed structures according to the site excavation plan.
- Construction of Solid Waste Transfer Station including structural, architectural, mechanical, electrical and landscape works detailed with drawings and technical specifications for the buildings
- Providing all "as-built drawings" and all summary tables of laboratory results at the end of the Works, fully describing the finalized Permanent Works.

The Contractor shall prepare shop drawings and as-built drawings for Engineer's approval, during the execution of the relevant stages of permanent works. The Employer and/or Engineer may request variations and/or additional works to be designed by the Contractor. The variations or new design works shall be carried out in accordance with the provisions of Technical Specifications and subject to Engineer's approval.

### 1.2.3. Construction Site

The Bozova allocated working field's area of 29046,23 m<sup>2</sup>. Construction site is 27848,72 m<sup>2</sup> located within the borders of Bozova, Şanlıurfa, and field coordinates are given below:

#### TRANSFER STATION WORKING FIELD COORDINATE / AKTARMA İSTASYONU ÇALIŞMA SAHASI KOORDİNATI

NOKTA NO POINT NAME	X	Y	Z
1	4134455.751	455364.130	657.92
2	4134440.239	455541.125	648.00
3	4134355.994	455716.588	639.91
4	4134337.815	455737.915	639.35
5	4134254.994	455647.475	646.98

#### TRANSFER STATION WORKING FIELD AREA INFORMATION / AKTARMA İSTASYONU ÇALIŞMA SAHASI ALAN BİLGİSİ

ALLOCATED FIELD AREA TAHSİS EDİLMİŞ ARAZİ ALANI	29046,23 m <sup>2</sup>
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#### FENCE COORDINATES / TELÇİT KOORDİNATLARI

NOKTA NO POINT NAME	Y	X	Z
TC.1	455720.6757	4134350.6636	639.95
TC.2	455660.8403	4134379.8986	642.36
TC.3	455547.7172	4134435.6137	647.74
TC.4	455492.3059	4134442.8804	651.00
TC.5	455432.7205	4134446.3143	654.35
TC.6	455372.2924	4134449.9680	657.50
TC.7	455647.4754	4134254.9937	646.98
TC.8	455730.5367	4134331.0584	639.35
TC.9	455720.9605	4134335.6563	640.50

#### AREA INFORMATION / ALAN BİLGİSİ

ALLOCATED FIELD AREA TAHSİS EDİLMİŞ ARAZİ ALANI	29046,23 m <sup>2</sup>
AREA WITHIN FENCE TELÇİT ALANI	27848,72 m <sup>2</sup>

### 1.3. SPECIFICATIONS AND STANDARDS

#### Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national or related to a particular country or region, other authoritative international standards that ensure substantially equal or higher quality than the specified standards and codes should be acceptable subject to the Engineer's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Engineer at least 7 days prior to the date when the Contractor desires Engineer's consent. In the event the Engineer determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

During the implementation and management of all issues of the Works; the standards, specifications and principles shall be adhered to in the management, design, construction, testing and acceptance and commissioning of all works.

#### **1.3.1. Standards**

The Contractor shall comply with the last updated editions of the following standards, in the order of precedence as listed, in the design, implementation, testing, acceptance and operation of all works within the scope of the tender. In circumstances for which there is no description in the following standards, it shall be permitted to use the last updated editions of other national and international standards on condition that the Engineer accepts.

- a. Turkish Standards (TS),
- b. European Norm (EN),
- c. International Standards Organization (ISO),
- d. Deutsches Institut für Normung (DIN),
- e. British Standards (BS)
- f. Union International des Chemins de Fer (UIC)

#### **1.3.2. Legislation**

The Contractor shall execute and complete the Works in strict accordance with applicable legislation of Turkey.

#### **1.3.3. Specifications**

The Contractor shall execute and complete the Works in strict accordance with the last updated editions of;

- Republic of Turkey Ministry of Environment and Urbanization "Construction Works, Civil, Mechanical Works and Electrical Works General Technical Specifications"<sup>5</sup>
- Republic of Turkey General Directorate of Highways "Highways Technical Specifications"
- Union of Chambers of Turkish Engineers and Architects, Chamber of Landscape Architects Publication; Technical Specifications for Landscape Works

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<sup>5</sup> Applicable communiques:

- "Communique related to Construction Works, Civil, Mechanical Works and Electrical Works General Technical Specifications" issued by Ministry of Public Works and Settlement, published in Official Gazette of Republic of Turkey no: 29459, dated 28 August 2015(complementary version) available at <http://www.resmigazete.gov.tr/eskiler/2007/06/20070630M1-1.htm>
- "Communique related to making amendments on communique related to Construction Works, Civil, Mechanical Works and Electrical Works General Technical Specifications" issued by Ministry of Public Works and Settlement, published in Official Gazette of Republic of Turkey no: 27853, dated 21 February 2011 available at:



#### 1.4. SITE

Refer to provisions stipulated in Clauses 11, 32, 33, 37, 39, 41 and Sub-Clauses 6.2, 34.2 of the General Conditions of Contract.

##### 1.4.1. Arrangement of the Site

The ground levels of the Site shall not be changed without the permission of the Engineer and no infrastructure, structure or tree shall be removed or permanent structure shall be built without the Engineer's prior approval.

The Contractor shall construct temporary parking areas, loading and unloading areas, open storage areas, approach and internal roads, temporary facilities to facilitate its methodology and order of construction of the Works.

##### 1.4.2. Site Requirements

Provision of all the necessary utility requirements on site, such as electricity, water, gas, etc. during the execution of the works shall be under the responsibility of the Contractor.

Application to the relevant authorities for subscription to provide utility connections shall also be under the responsibility of the Contractor. All costs of the consumptions on site shall be covered by the Contractor.

Any temporary fencing used by the contractor to protect the works shall be appropriate for the task to keep the public from danger and protect the workers.

The Contractor shall erect such fencing as soon as he is given possession of the relevant portion of the Site. The Contractor shall regularly inspect and maintain all such fencing, any defects being made good without delay.

Access shall be provided in temporary site fencing as necessary for the use of the occupiers of adjacent properties.

Temporary site fencing shall remain in position until the Works are sufficiently completed to enable that portion of the Site to be brought into use without danger to the public.

##### 1.4.2.1. Site Temporary Buildings

The Contractor shall supply offices, dining halls and accommodation places for his own personnel, Subcontractors and furnish and maintain these places.

The office of the Contractor shall be a building that he shall use as headquarters during the realization of the Works with necessary offices, service rooms and meeting halls. All notifications and other correspondence relating to the Contract by the Engineer to this office shall be deemed to have been made to the Contractor

##### 1.4.2.2. Temporary Water Supply

The Contractor shall supply and distribute water both for the personnel and for the Works. All of the piping, storage and similar main and intermediate systems shall be established in accordance with drawings and specifications. In the event that the municipal water supply is not available in sufficient amounts or pressure, additional supplies shall be provided by the Contractor.

It is the responsibility of the Contractor to provide all necessary back-up, maintenance and repair works for the uninterrupted supply of water sufficient for construction of the Works.

##### 1.4.2.3. Temporary Electricity and Gas Supply

Provision of all the necessary utility requirements on site, such as electricity and gas, etc. during the execution of the works shall be under the responsibility of the Contractor.

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<http://www.resmigazete.gov.tr/main.aspx?home=http://www.resmigazete.gov.tr/eskiler/2011/02/20110221.htm&main=http://www.resmigazete.gov.tr/eskiler/2011/02/20110221.htm>

- "Communique related to making amendmends on communique related to Construction Works, Civil, Mechanical Works and Electrical Works General Technical Specifications" issued by Ministry of Environment and Urbanisation, published in Official Gazette of Republic of Turkey no: 30352, dated 06 March 2018 available at: [http://sgb.csb.gov.tr/mevzuat/dosyalar/r\\_20180306093845756\\_03c559f6-993f-40e1-9009-6701e836970d.pdf](http://sgb.csb.gov.tr/mevzuat/dosyalar/r_20180306093845756_03c559f6-993f-40e1-9009-6701e836970d.pdf)



The Contractor shall be required to make all necessary arrangements with relevant local authorities and/or owners/occupiers of the properties in order to obtain the supply of necessary utilities and cover the expenses for supplying and consuming these services, where necessary.

The Contractor shall provide connection to the site from a suitable point.

The Contractor is obliged to take all precautions for the safety of employees and third parties both in the supply and distribution of the energy. It is the responsibility of the Contractor to provide all necessary back-up, maintenance and repair works for the uninterrupted performance of the temporary electrical supply.

The Contractor shall take necessary measures related to the unexpected cuts off of these services.

#### **1.4.2.4. Temporary Communication System**

The Contractor shall provide all necessary arrangements for bringing separate telephone lines to his offices in the site and to the offices of the Employer and the Engineer. The Contractor shall supply and install all necessary equipment in this regard. The Contractor shall provide all the maintenance necessary for the uninterrupted performance of telecommunications.

#### **1.4.2.5. Temporary Sanitary Installation, Cleaning**

The Contractor shall clean the site when necessary and in such a way as to preserve it in a hygienic state and shall comply with the relevant laws and instructions of the Engineer.

The Contractor shall establish temporary sanitary facility in the site in order to meet the requirements for the working personnel. For this purpose, the Contractor shall supply flushed W.C., hot water and shower and toilets in suitable places on the site. Domestic water connections of facilities shall be protected against frost. Sewerage drains shall be connected to the sewerage network as much as possible. In the event that this is not possible, connection shall be made to cesspools built in accordance with national specifications. Cesspools shall be drained at suitable intervals.

#### **1.4.2.6. Employer's Equipment and Free-issue material**

There is no Employer's Equipment available for the use of the Contractor in the execution of the Works.

Free-issue materials are not available on behalf of the Employer.

#### **1.4.2.7. Project Sign Board**

The Contractor shall at his own cost supply, erect and maintain 1 signboard (size 2.5 m x 3 m) at locations to be determined by the Engineer on which the names and information asked by the Engineer. The design of the sign board requires the prior approval of the Engineer and the Employer.

#### **1.4.2.8. Plant and Temporary Works**

The property of all structures, materials, vehicles, tools and equipment supplied and established by the Contractor for the performance of the Work belongs to the Contractor.

Temporary facilities shall be removed within the time and method to be decided by the Engineer after Substantial Completion and their places shall be cleared. Fences, billboards, etc. that have been removed temporarily shall be placed again.

#### **1.4.2.9. Protection of Existing Structures and Utilities**

The Contractor shall assume full responsibility for the protection of all buildings, structures, and roads existing in the area of the construction site, public or private, whether or not they are shown on the drawings. Any damage resulting from the Contractor's operations shall be repaired at his expense.

The Contractor shall take all necessary precautions to avoid causing any unwarranted damage to roads, lands, properties, trees and other features and, during the Contract, shall deal promptly with any complaints by owners or occupiers.

Where any portion of the Works is close to, across, or under any existing apparatus of Statutory Undertakers, the Municipality or other parties, the Contractor shall temporarily support and work round, under or adjacent to all apparatus in a manner designed to avoid damage, leakage or danger, and to ensure uninterrupted operation.

Should any leakage's or damage be discovered, the Contractor shall at once notify the Employer and the Statutory Undertaker, Municipality or owner concerned, as appropriate and the Contractor shall afford every facility for the repair or replacement of the apparatus affected.

Building interiors shall be adequately protected during the course of the works to ensure that they remain water-tight.

The Contractor shall adequately safeguard the buildings affected by the works against damage and theft.

All electrical installations shall comply with the relevant national regulations and shall be safe for the Contractor and members of the public. All Works shall be illuminated when daylight deems to be insufficient.

Before commencement of works nearby the existing structures preconstruction photos shall be taken.

#### 1.5. CONTRACTOR'S KEY PERSONNEL

The Contractor shall employ following key personnel with qualifications listed below on site in line with Programme of Work.

**Project Manager/Construction Manager:** English speaking, minimum 5 years' experience in construction of any kind of structure and degree in civil engineering or architecture.

**Site Works Manager:** English speaking, minimum 3 years' experience in construction of any kind of structure and degree in civil engineering or architecture.

**Electrical Engineer:** Minimum 3 years' experience in construction of any kind of structure, and degree in electrical engineering.

**Mechanical Engineer:** Minimum 3 years' experience in construction of any kind of structure and degree in mechanical engineering.

**QA/QC Engineer:** English speaking, minimum 3 years' experience in construction of any kind of building and relevant degree.

#### 1.6. PLANT

The contractor shall ensure availability of the followings on site in line with Programme of Work.

Equipment	Specifications (minimum)	Minimum number of Quantity
Excavator	90 hp	1
Truck	15 tons	2
Compressor	180 hp	1
Power Supply Generator	250 kVA	1
Crane	40 tons	1
Roller Compactor	n/a	1
Loader	n/a	1
Grader	n/a	1
Concrete Vibrators	n/a	4
Scaffolding	n/a	3.000 m2
Water Tank	20 tons	1
Panels for Power & Lighting	n/a	4

## **1.7. MATERIALS**

### **1.7.1. Conditions for Materials and Equipment**

Materials and equipment within the scope of the Work shall comply with the conditions stated in the Technical Specifications. Materials and equipment proposed to be used by the Contractor and which have not been specified shall only be incorporated in the Works after their equivalence with the Technical Specifications has been verified and approved by the Engineer.

Any material or equipment proposed by the Contractor for substitution from that specified shall be subject to prior approval of the Engineer.

### **1.7.2. Storage Facilities**

The Contractor shall establish open and closed storage places in suitable and sufficient extent at his own expense for the storage of materials and equipment in the site. The Contractor is obliged to take all necessary protective precautions against damage, contamination inclement weather and theft.

### **1.7.3. Terms of Transportation**

All of the materials and equipment shall be packaged in such a way to facilitate transporting in and out of the storage and to the Work Place and to be protected against damage.

Materials and equipment shall be loaded on vehicles in conformity with international transportation rules. During transportation, all necessary additional precautions shall be taken and adequate transportation insurance shall be provided at the sole responsibility and cost of the Contractor.

## **1.8. SETTING - OUT**

All necessary application, measurement and instrumentation processes and equipment necessary for construction of the Works and for preservation of the environment in the vicinity of the Works are the responsibility of the Contractor at his own expense.

### **1.8.1. Application Works**

The Contractor shall prepare application drawings showing the setting out of the structures on the site and based on the reference points and levels given in the Drawings and submit to the Engineer for approval. The accuracy of the setting out shall be the sole responsibility of the Contractor.

For application and measurement processes; the Contractor shall:

- Employ qualified and experienced land surveyors.
- Use modern type and high-quality topography devices suitable for the works.

Inspect and have certified the necessary topographical devices at least once every six months.

### **1.8.2. Other Measurements for Site Inspection**

The Contractor shall conduct any kind of measurement necessary for the determination of water, ground, seismic events and movements that might be caused by the aforementioned, which is related to the construction and the environment. These measurements shall be conducted in methods and at locations, which shall assist in execution of the project in line with Technical Specifications and in taking the corresponding precautions, which may damage the structures.

Within the frame of the aforementioned measurements, including but not limited to the following, fixed and moving measurement devices shall be supplied and installed by the Contractor in order to:

- Determine the ground movements that might occur due to various reasons and the movements that these shall cause in current structures and excavation supporting systems,
- Determine the vibrations and movements due to explosion, pole and sheet pile driving and earthquake and also determine the effects of these on the current structure and also structure and excavation supporting systems,
- Determine excessive rain condition and underground water movements.

Measurement devices, which are subject to the approval of the Engineer, supplied by the Contractor shall have the quality for correct reading.

The Contractor shall conduct correctly and fully:

- Placement and usage of devices,
- Recording and evaluating the measurements,
- Determination of device's lack of adjustment and ensuring their adjustment.

The Contractor's staff for measurements shall be subject to the approval of the Engineer as well.

The Contractor shall prepare and submit a Measurement Plan to the Engineer for approval in relation to the measurements including:

- Purposes of utilization of fixed and moving measurement devices, places of their settlement or points of measurement,
- Qualities and technical specifications of all measurement devices
- Reading, evaluation and reporting periods in ordinary situations,
- Any kind of determination before construction related to current structures.

In the event of detection of extraordinary events as a result of readings and evaluations, the decisions such as appropriate permanent and temporary precautions or ceasing the operations in the region shall be taken together with the Engineer and shall be implemented immediately. In the event that values are at levels affecting the calculation criteria, safety at work shall be taken into account and project shall be changed.

This measurement shall be done in case the Engineer needs them and the Engineer will give instruction to the Contractor and the Contractor shall apply them in his cost.

#### **1.9. ACCOMODATION FOR THE ENGINEER**

Before commencing the Contract, the Contractor shall supply and erect on the site a office of a minimum 10 m<sup>2</sup> room for the exclusive use of the Engineer at a location to be agreed with the Engineer. This office shall be provided for the total construction period.

The washroom shall be provided with a washbasin, hot and cold water supplies and a flush operated WC connected to the existing sewer. The Contractor shall be responsible for the security of the Engineer's office and all equipment therein until the office is finally closed.

The Contractor shall maintain, light, heat/cooling and clean the office for the duration of the contract. The Contractor shall be responsible for the insurance of the office for the duration of the contract. The Contractor shall insure the office and the contents provided by him, against fire, burglary and other risks ordinarily insured against during the period of the Contract.

Material	Quantity
Working Table	1
Director Chair	2
Guest Chairs	5
Design Review Table	1
Telephone Machine	1

The electricity, water supply, and maintenance costs of this office shall be met by the Contractor(s) until substantial completion of the Works.

All facilities shall be approved by the Engineer. The Contractor shall ensure that all equipment is kept in good condition and shall repair or replace, as directed by the Engineer, any equipment that becomes unserviceable.

#### **1.10. COORDINATION**

The Contractor is responsible for ensuring all coordination necessary for the execution of the work in accordance with the quality, cost and timing objectives foreseen by the Employer at the beginning of the work.

The Contractor shall prepare a Critical Path Method (CPM) work schedule, inspect the schedules according to the project timeframe, check the integrity of the schedules between infrastructure, superstructure constructions, electrical and mechanical works, combine the schedules and submit to the Engineer for approval.

The Contractor shall be responsible for ensuring administrative and technical coordination with the Employer, the Engineer and other parties who might directly affect the works along with the following parties who might have indirect effect:

- a. Relevant official institutions and organizations,
- b. Other authorized persons, institutions and organizations

#### **1.11. CONTROL AND EXAMINATION OF MATERIALS AND EQUIPMENT**

If the Engineer requests, s/he sends his own members to the project offices, factories of the Contractor and to factories of its subcontractors for the technical control and examination of the material and equipment, production in factories and for their participation in the project works. Any such visits, if required, are deemed to be additional to FAT (Factory Acceptance Test). The Contractor will inform the Engineer about the date when the material is ready for examination and request personnel. Examination personnel of the Engineer will be present in the construction, mounting of production parts, mounting of main groups and trial works, and will prepare the joint examination report as a result of the control.

FAT shall be organized by the Contractor. The Contractor will propose a program and a testing procedure to be approved by the Engineer. The Contractor and the Engineer shall attend the FAT in accompany with the End Recipient and at the end of the FATs, materials and equipment will be delivered on basis of the FAT Report signed by the Engineer. If the members of the Engineer are not present at the agreed date, Contractor will consign the materials and equipment's based on the examination and reports of manufacturing factory 14 days after the technical control date specified.

The Engineer will inform arrival date of the personnel or whether or not joint acceptance of the material is necessary and its term within 10 days after the Contractor gives notice.

Control made in the factory is final in terms of the quality Material, of which its examination is realized by the personnel of the Employer or the End Recipient in the factory or delivered together with the factory test reports, is controlled only for its quantity as soon as possible after its arrival to the port, where deemed necessary if imported from abroad, and the construction site. The Contractor may provide one personnel in the control made for the quantity.

As a result of the control and counting of the material, replacement of materials, which are not in compliance with the quality identified in the specifications, are malfunctioned, deficient or sent by mistake, will be realized and delivered to the buyer within 30 days (this term will be determined mutually, when special manufacturing is necessary) and all expenditures made. Otherwise, the Employer will procure these, and collect all expenditures from the receivables or performance security in the Employer.

#### **1.12. OBTAINING OF RELEVANT APPROVALS AND CERTIFICATES**

The Contractor shall obtain all relevant approvals and certificates from local Authorities regarding construction and operation of the Plants in the site.

Permits, license and approval costs which are required by the Turkish laws/regulations will be determined by the relevant local authorities.

#### **1.13. AS-BUILT DRAWINGS AND OPERATION & MAINTENANCE MANUALS**

This part of the Specifications covers the "As-built Drawings" to be prepared by the Contractor including Operation and Maintenance Manuals of the Plant incorporated in the Permanent Works. Three complete draft sets of prints of Drawings showing all Works exactly as made shall be submitted to the Engineer for approval within one month of the substantial completion of the Works on site.

The Contractor shall record all information necessary for preparing as-built drawings during the execution of the Works on the Sites. Neatly marked-up drawings and other documents covering the Permanent Works as completed shall be available to the Engineer at any time during construction.

Marked-up drawings shall be kept up to date and submitted monthly to the Engineer for approval, as the Works are completed. Submission shall be in hard copies.

The Contractor shall submit complete sets of instructions and manuals to Engineer for approval describing the installed Plant in order to facilitate operation and maintenance, together with the "As-built Drawings". The documents shall include but not be limited to:

- Layout drawings
- Schematic cabling diagrams
- Detailed descriptions
- Specific operation instructions
- Specific maintenance instructions
- Detailed record of all types of tests
- Component list specified for all installed Plant.
- Identifications of key design elements, systems and materials that are critical to long-term quality and performance of your project: e.g. exterior wall and roof materials, windows, exterior doors, landscaping, key mechanical equipment.
- Developing or collecting available operation and maintenance information/manuals on each of these components. (Much of this information will already exist and simply needs to be assembled.)
- Ensuring all materials, as-built drawings, final finish schedules and plans, and all warranties, guarantees and certifications – that are contractually owed to contractor are collected from contractor's design team before final payments are made.

All information in these manuals shall apply specifically to the Plant and equipment being supplied, and they shall be free from irrelevant matters such as might be contained in the manufacturer's general literature.

The as-built documentation shall include all architectural and engineering disciplines including architectural/ structural, electrical and mechanical drawings, and operation and maintenance manuals. Final version of as-built drawings in two hard copies and one electronic (in Auto CAD and Microsoft Word, Excel, etc) copy of each document shall be provided together with the notice for substantial completion incorporating Engineers' comments and all the modifications/revisions effected during construction. Operation and maintenance manuals shall be provided in Turkish.

All material except drawings shall be A4 size. Drawings shall be on international A size sheets, and drawings shall be marked as "AS-BUILT".

## **2. PROJECT CONTROL DOCUMENTS**

### **2.1. PROJECT MANAGEMENT**

#### **2.1.1. Project Management Obligation**

The Contractor shall be responsible for effectively managing his efforts in carrying out the requirements of this Contract.

The Contractor shall be responsible for the management, performance, monitoring and coordination of the whole project in order to fulfil all requirements of the Contract and those given in Technical Specifications.

The Contractor's management obligations shall include the efficient planning of work to be performed in cooperation with the Engineer and Employer along with their appointed representatives to ensure project progress visibility.

#### **2.1.2. General Requirements**

The Contractor shall establish a project organization in accordance with requirements included herein, having the necessary resources, qualification and experience to fulfil all the Contractor's obligations.

The Contractor shall unambiguously define the tasks, responsibilities and authorities of each individual role within the organization, at least at the management and team leader level.

The project organization shall have clear and well-defined command lines and channels for reporting, within and outside the project organization.



The Contractor shall describe which parts of the Contractor's organization are used for staffing the project, and how the project organization aligns with the Contractor's main organization.

The Contractor shall describe the support functions, which are available for the project organization in the Contractor's main organization and how such resources are put to the disposal of the project.

The Contractor shall describe the organizational interfaces towards any sub-contractor and supplier that shall be in or outside the project organization. Such interfaces shall provide a clear reference between the project management level within the Contractor's and the sub-contractor's/Supplier's organizations.

The Contractor shall appoint key staff members, and these shall to the highest possible extent remain unchanged by the Contractor for the entire project.

Any later changes in such appointments shall be informed to and approved by the Engineer and shall be argued by the Contractor in order for the Engineer to assess the reasons and likely impact of such change.

The Contractor shall, unless this is not within the power of the Contractor, ensure that existing staff remains until suitable and acceptable replacements have been found.

#### **2.1.3. Programme of Work**

The programme of work shall comprise following as minimum:

- The proposed location of office on the site, stations (steel/concrete structures), warehouses, accommodation, etc. (sketches to be attached as required).
- A brief outline for completing the works in accordance with the required method of construction and stated time of completion
- A critical milestone bar chart (schedule of execution) representing the construction programme and detailing relevant activities, dates, allocation of labour and plant resources, etc.
- If the tenderer plans to subcontract part of the works, he must provide the following details:
  - Details of work to be subcontracted,
  - Name and details of subcontractors,
  - Value of subcontracting,
  - Experience of subcontractor in similar work.

#### **2.1.4. Project Manager Responsibilities**

The Contractor shall define a project management team and shall appoint a Project Manager in charge of the entire project.

The Contractor shall allocate the necessary competence and authority to the Project Manager, entitling the Project Manager to make decisions related to all aspects of the day-to-day management of the project.

Any restriction in the Project Manager's rights in this respect shall be clearly identified and described. Such restriction shall not impose management difficulties upon the project.

All official communication between the Engineer/ the Employer and the Contractor shall be passed through the Contractor's Project Manager.

The Contractor shall prepare and submit to the Engineer a list of the following Contractor's key personnel (names and CVs)

- Contractor Project Manager
- Contractor Chief Engineer Responsible for Civil Works
- Contractor Chief Engineer Responsible for Electrical Works
- Contractor Chief Engineer Responsible for Mechanical Works
- Quality Control and Quality Assurance Manager
- Contracts and Financial Manager

#### **2.1.5. Engineer's Involvement**

For the execution of this project, the Engineer reserves the right to be assisted by other agencies for technical, operational and contractual matters.

The Contractor shall establish a close coordination with the Engineer for the development of all planning activities related to the project, and shall forward relevant plans, procedures etc. for review and approval, prior to putting such plans or procedures into force.

Engineer's duties and responsibilities are defined within the General Conditions of Contract for Civil Works.

#### **2.1.6. Project Plans**

The Contractor shall prepare the following Project plans, which shall be reviewed and approved by the Engineer:

- a) Authority Liaison and Permitting Plan with Manual and Schedule
- b) Project Management Plan, including Work Breakdown Structure and Risk Management Plan
- c) Quality Control and Quality Assurance Plan
- d) Safety Management Plan
- e) Training Plan
- f) Documentation Plan
- g) Operation and Maintenance Manual
- h) Spare Parts Management Plan

In co-ordination with the Engineer, the Contractor shall also unambiguously define which information is required from the Engineer and when during development and testing.

In addition, the Contractor shall prepare method statements for each activity. Any site activity (excavation, filling etc.) can be start after the approval of the method statements by the Engineer.

#### **2.1.7. Project Management Plan**

The Contractor shall establish a management system to plan, organize and control the administrative, technical and financial aspects of the project which will ensure the timely, efficient and cost-effective completion of this Contract's requirements and provide the Engineer and the Contractor with program progress visibility.

The Contractor's Management system shall establish:

- An agreed plan for orderly and effective project implementation;
- Rapid and accurate procedures to provide reports on progress and problems in all areas
- Effective decision-making processes with clear provision for the Engineer's participation as required; and
- Appropriate resource designation with necessary authority to control the achievement of the program.

As part of the contract, the Contractor shall deliver to the Engineer the license to use the management tools for the duration of the project.

The Engineer may wish to conduct an audit of the project management systems to be used during the project implementation. The Contractor is required to provide Engineer's authorized representatives with access to the information and supporting documentation necessary to demonstrate compliance with the project management and reporting requirements of the contract.

#### **2.1.8. Reporting and Reports**

The Contractor shall ensure that the Engineer and the Employer are kept informed about the status of all areas within the project, and as a whole ensure that the Engineer can maintain a complete and detailed knowledge of the project.

The Contractor shall provide progress reports to the Engineer describing, but not limited to, achievement, problems, risks and containing updated schedules, WBS, cost/schedule control reports, status of contract variation proposals, and other data which are required for the efficient management of the project.

The Contractor shall agree with the Employer dates for the submission of monthly Progress Reports. These reports shall normally be submitted no later than 7 working days after the completion of each month.

Such reports shall provide information on the status of the Contract, and/or on any matters that could interfere with the timely achievement of any aspect of the Contract and the steps proposed by the Contractor to remedy such matters. The progress report will have minimum the following contents:

- Project progress

- \* Project management overview. Describes major results achieved, problems that have occurred, and corrective action that has been taken or is planned for solving the problems.
- \* Technical status: Identifies detailed status, including requirements definition status, design and development progress, problems encountered, corrective actions taken, and a summary of outstanding and approved change items during the period.
- \* Quality follow-up: Describes activities of the quality assurance program
- Project Schedules: Shows activities completed (e.g., milestones and deliveries), status of ongoing activities, schedule changes (if any). This section also identifies the outlook for the next three months with an assessment of the major activity completion dates.
- Action item status: Describes outstanding action items and action items that have been closed during the reporting period.
- Risk assessment: Presents the current critical paths, critical activities, and technical risk, including assessment, impact, and containment plans.

#### **2.1.9. Action Items Management**

The Contractor will generate action items throughout the Works life cycle, either at formal reviews and project progress meetings, or as issues arise during Works development.

The Contractor shall record and track all action items relating to schedule, technical issues, subcontractor problems, or the Engineer's concerns. The project managers will assign action items to the person responsible for resolving the issue.

Action items list and status shall be attached to the Progress report and shall be issued by the Contractor on request from the Engineer. The list shall at least include following information:

- Action item description
- Person in Charge
- Due Date
- Status

#### **2.1.10. Meetings**

##### **2.1.10.1. Progress Meetings**

Progress meetings will be held at the times indicated on the progress chart (at least every 1 months, unless agreed otherwise), and will take place at location, which shall be proposed by the Contractor and approved by the Engineer.

The following persons shall be present at progress meetings:

- The Contractor's representative (i.e. the project manager)
- The representatives of the Employer, the Engineer and the Implementing Partner.
- Any other persons whom the above representatives consider should be present in an assistant/consulting capacity.

The major items to be addressed in the progress meetings are those identified for the progress reports and any other items, which are deemed necessary by the Engineer, the Implementing Partner or the Contractor.

The Contractor shall prepare an agenda and forward it to the Engineer no later than 1 week prior to each meeting for review and approval.

Progress meetings will be chaired by the Engineer's Project Manager or his deputy and will be held at the Engineer's offices or as otherwise agreed.

The Contractor shall prepare and produce the minutes. Draft minutes will be ready at the end of meetings and reviews. Minutes signed by the Engineer and the Contractor shall be attached to the contract file and shall become binding for both parties. All of these proceedings pertaining to progress meetings shall be conducted by the Contractor under the orientation of the Engineer.

#### **2.1.10.2. Weekly Site Meetings**

Site Meetings (SMs) will be convened by the Contractor as mutually agreed between the Contractor and the Engineer, during the project to allow discussion on specific aspects of the execution, orientation, future arrangement and coordination of the works and also for briefing. SMs may be held to formalize important technical discussions, generally prior to the Progress Meetings and record information's and recommendations arising from these discussions. Decision shall be normally taken at the Progress Meeting.

SMs will be held at locations to be mutually agreed between the Contractor and the Engineer. The Contractor shall provide SMs with the papers documenting the technical items for discussion and recommendations.

The agenda of SMs shall be determined by the Engineer and the Contractor together. The agenda of SMs shall be notified to the participants at least 2 (two) days prior to SMs in writing and via e-mails. In addition to the Engineer, the Employer and the Contractor, SMs can be attended by supply companies, manufacturer companies, subcontractors and other institutions and organizations related to the works when necessary.

Meeting minutes shall be recorded by the Engineer, kept carefully and these shall be distributed as minutes of SMs to the Employer and the Engineer, participants and also other persons, institutions and organizations to be found necessary by the Engineer. Minutes signed by the Engineer and the Contractor shall be attached to the contract file and shall become binding for both parties. Minutes shall be forwarded by the Employer and the End Recipient for consideration at the next Progress Meeting. All of these proceedings pertaining to SMs shall be conducted by the Contractor under the orientation of the Engineer.

Electronic mail link will be established between the Project Offices to ease the communications between the Contractor and the Engineer.

The Contractor is also responsible for organizing additional meetings upon the instruction of the Employer or the Engineer.

#### **2.1.11. Sub- Contractor Involvement**

Generally spoken it is the responsibility of the Contractor that all sub-contractors perform their part of the work in accordance with the rules laid down in the contract between the Employer and the Contractor.

This implies that the sub-contractors are subject to the same Project Management procedures and must follow the same standards as applied by the Contractor. The Engineer has the same rights against any sub-contractor as against the Contractor, but this will not free the Contractor for his responsibility for the work performed by the sub-contractors.

To finish the approval procedure for Sub-Contractors involved by the Contractor within the Project, the Contractor shall provide to the Engineer specified documents for each Sub-Contractor (means Sub-Contractor and Sub-Designer) as stated below.

Registration for chamber of commerce

Trade registry gazette

Criminal records of the responsible people of the Sub-contractor

Delivery statement of previous project accomplished by the sub-contractor

Authorized signatures list

Relevant quality certificates like ISO 9001

No bankruptcy statement given by the commercial record authorities

A summary of the status of Sub-contractor with monthly progress payments needs for hand over to keep overview.

Be aware that this matter is pre-condition of payment for works done by Sub-contractors.

The Engineer shall have the right to disapprove a proposed sub-contractor in case of objective evidence that the sub-contractor cannot comply with requirements within this contract, that be related to the delivery or the Project Management and Quality Assurance.

The Contractor shall keep a list of all sub-contractors and suppliers, which are used or are planned to be used within the project and shall forward such list to the Engineer every time it is updated.

The list shall include a precise identification of which parts or components the sub-contractor or supplier in question shall deliver to the Contractor.

The Contractor shall be fully responsible for the work performed by any sub-contractor as for the work performed by the Contractor himself.

## **2.2. SPECIFIC ON-SITE ACTIVITIES**

### **2.2.1. Management and Planning**

The Contractor shall have the full responsibility for the construction, installation and setting up the Works.

The planning of the construction, installation and setting up of the Works shall be developed in close cooperation with the Engineer.

The Contractor shall be responsible for the maintenance and operation of the system during its installation and setting up.

### **2.2.2. Installation Plan**

At each site where installation is going to take place, the Contractor shall prepare an installation plan comprising:

- The Engineer's activities
- Sub-contractor's involved
- Tasks to be performed and who is responsible for each task
- Timing of the tasks
- Documentation of installation (e.g. instructions, specifications and drawings)
- and other information important for the final installation.

The installation plan shall be approved by the Engineer in due time before the final installation

### **2.2.3. Installation**

The Contractor shall, in due time before installation, submit instructions and specifications with detailed information concerning:

- interior
- installation
- cabling, routing, grounding, power, communication
- other topics important for the installation of the Works.

The installation shall take into consideration local legislation, rules and procedures to (i.e.) cabling, power connection and working conditions.

The Contractor shall produce, procure and supply all necessary equipment, tools, etc. consumable as well as non-consumable needed for the installation and setting-up.

### **2.2.4. Setting up**

Setting up covers the activities after the physical installation to adjust and tailor system parameters, fine tuning, etc. to make the system 100% operational.

The Contractor shall specify which procedures will be used to set up the Works.

## **2.3. SAFETY**

The Contractor is responsible for taking all necessary precautions in respect of Works, materials, machinery, equipment and current facilities, persons on site and neighboring environment. All expenses including indemnities that might arise are the responsibility of the Contractor.

Before the commencement of the Works and site infrastructure survey, The Contractor shall prepare a detailed safety management plan along with safety manuals, in which precautions for the safe performance of Works and methods of actions against unexpected circumstances are specified and submit to the Engineer for approval. This approval does not free the Contractor from his responsibilities related to safety.

The Contractor shall also form experienced safety personnel that shall work 24 hours a day for the maintenance of safety and observation of precautions and for taking additional precautions if necessary. Detailed Safety Management Plan shall be prepared and approved by the Engineer after 28 days of site handover. The Contractor can only start the works on site after the approval of the Safety Management Plan by the Engineer.

### **2.3.1. Safety of the Construction Site and Periphery**

#### **2.3.1.1. Safety Fence**

Contractor shall determine the extent of site boundary fencing necessary to protect the site, works, materials, equipment and facilities against unauthorized access and for safety of the public, to control entries-exits and prevent the entrance of unauthorized persons.

There shall be sufficient number of security officers provided by the Contractor at entrance-exit gates and locations where deemed necessary. There shall be adequate night lighting for ensuring supervision of security officers throughout the fence.

#### **2.3.1.2. Fire Protection**

The Contractor is responsible for taking necessary precautions for the protection of Works, Temporary Works and any kind of property and person during performance. All of the precautions, including raising the awareness of personnel, and the proceedings to be implemented in the event of a fire shall be determined working closely with the Fire Department.

During the Work, the special additional precautions that might be needed in the following cases shall be taken and implemented:

- Storage of materials that might easily inflame,
- Collection, storage and disposing of inflammable wastes,
- Operations performed with electric-arc welding and oxy-acetylene cutting machines,

In case a fire breaks out, the Contractor shall supply and get ready following equipment:

- Dry chemical powder type fire extinguishers that can be installed to walls, carried manually with nitrogen pressurized in certain places
- Special extinguishing systems in sections where Fire Department can't enter or access easily

#### **2.3.1.3. Warning Marks, Lighting**

All of the open excavations, material piles, structures, facilities and equipment that might create hazard shall be surrounded by barricades with appropriate marks with the aim of protecting the employees and other people.

In the same manner, the roads and passages blocked due to Works shall be protected by barricades.

This kind of areas shall be marked with warning plates placed in appropriate distances and attract the attention of people. All of the barricades, obstacles and marks shall be illuminated from dusk to sunrise.

### **2.3.2. Safety at Work**

It is the responsibility of the Contractor to take necessary precautions to prevent accidents that might cause damage to persons, materials, equipment and facilities during the work.

The Contractor shall assign a Safety Team under the leadership of an experienced Safety Manager for any kind of work on safety at work. The primary duties of this team shall include but not limited to:

Training the employees in respect of actions and practices that shall cause accidents or damage, taking precautions in the site that shall at least meet the requirement of "TS 8983 General Safety Precautions that Should be Taken in Structures During Construction", Monitoring whether precautions and warning are obeyed or not,

Taking additional precautions, warning orally, and giving punishment in the event that faults are detected.

Stepping in and performing what should be done in the event of a harmful event.

The Contractor shall carry out the works in accordance with the Turkish Health and Safety regulations.

#### **2.3.2.1. First Aid**

Shall be arranged in accordance with the applicable Turkish Health and Safety Regulations.



#### **2.3.2.2. Hazardous Substances**

When the following are encountered, Works shall be ceased in the section where the event occurs:

- Buried known or unknown toxic substances,
- Unnaturally colored ground water or soil,
- Asbestos,
- Volatile organic compounds measured with photo ionization detector,
- Chemical substances or oil products or other similar circumstances that are spilt and spread on the site.

Cleaning of the area in such a way not to damage employees and removal of the hazardous substance shall be performed by an expert team trained and equipped for this kind of works.

#### **2.4. QUALITY CONTROL AND QUALITY ASSURANCE**

The Quality Control and Quality Assurance Manager shall be employed after the approval of the Engineer.

##### **2.4.1. Quality Responsibility**

All of the Works shall be performed according to the most appropriate engineering practices and standards in respect of construction, material, equipment and workmanship.

It is the responsibility of the Contractor to control the quality of the work and to take samples and carry out necessary tests in respect of achieving conformity with specifications and approved materials at his own expense. A Quality Control and Quality Assurance Manager to be assigned by the Contractor shall be responsible for all phases of quality control and sustain an efficient communication with the Engineer.

##### **2.4.2. Material Quality and Equivalent Materials**

All of the materials and equipment supplied to be used permanently within the scope of the works shall comply with current standards and specifications. The products of other Manufacturers instead of determined materials and equipment shall be accepted on condition that their equivalency is approved by the Engineer. In such events, the Contractor shall submit to the Engineer all of the evidences of the equivalency of the new product.

##### **2.4.3. Quality Control and Quality Assurance Plan**

After signature of the Contract, the Contractor shall submit to the Engineer a detailed Quality Control and Quality Assurance Plan within 28 (twenty-eight) days for approval. The plan shall cover quality control and assurance of all phases of works on the site.

The plan shall include at least the following items and shall be supported by additional information that might be needed by the Engineer.

The Plan shall cover the quality assurance of all aspects of the Works, and contain, as a minimum, the following items:

- Organization chart for quality control and quality assurance
- List of Contractor's staff to be engaged in quality control and materials testing together with details of their relevant experience
- List of facilities which will be inspected and tested by the Contractor at stages during implementation of the Works as part of his quality control, together with inspection procedures and test types
- Certificates of materials
- Specifications of equipment and work
- Tests
- Relevant certificates on supplied materials
- Detailed checklist for all installations. The checklist shall be for the Contractor's own use, documenting the Contractor's own quality control of the installation.

The Plan may be supplemented with additional items from time to time as requested by the Engineer.

The approved Quality Plan shall be followed throughout the performance of the Contract, unless the Engineer to the contrary issues specific approvals or instructions. Any approval of the Engineer shall not relieve the Contractor of his obligation to ensure that the Works comply with the requirements of the Contract.

Quality assurance records, test certificates, reports and daily records of on-site testing and inspection shall be kept on site during the works, and the results shall be certified by the responsible member of the Contractor's staff.

Quality Control and Assurance Plan shall enter into force after the approval of the Engineer

#### **2.4.4. Tests Samples, Materials and Equipment**

The Contractor shall supply all of the samples including storage, packaging and transportation related to quality control and tests. The materials represented by these samples shall not be manufactured without the approval of the Engineer, brought to work place or used in any work.

Approved material and equipment samples to be used on the site shall be kept carefully under they are permitted to be disposed by the Engineer.

#### **2.4.5. Test Laboratory Services**

Quality Control tests shall be done in the laboratory to be established by the Contractor. For the tests that cannot be done in this laboratory, an independent laboratory that is approved by the Engineer shall be used at the expense of the Contractor.

The Contractor shall ensure that both his own laboratory and the independent test laboratory perform the desired material inspection, sample receiving and test processes as fast as possible and conclude them.

Test results shall be immediately submitted to Engineer. In the event of detection of disorders or deficiencies that might affect the Work, the Contractor shall take any kind of corrective precaution immediately.

The laboratory is not authorized to change, expand or invalidate the terms of the Contract.

#### **2.4.6. Examinations and Manufacturer's Tests**

The Contractor is responsible for ensuring that quality control and all relevant examinations and tests are carried out duly without taking into account whether they are on Site or in any other place and also for taking corrective precautions when necessary.

The Engineer can audit the work carried out in the Manufacturer Company's facilities and also the tests related to these works. The Contractor shall inform the Engineer and the End Recipient on time so that this can be done as desired.

The manufactured items and materials that are delivered to the Site shall be examined by the Contractor on their arrival and any kind of fault shall be informed to the Engineer. The products with important faults shall be returned to the Manufacturer Company to be amended or replaced.

Examinations and tests carried out by the Engineer or on his behalf do not release the Contractor of his obligations related to quality control

#### **2.4.7. Construction Site Records and Tests Certificates**

Quality Control records, test certificates, reports, daily construction site tests and examination records shall be kept on forms approved by the Engineer.

All of the test certificates and examination records shall be divided into their relevant departments and kept including those in the Manufacturer Company and other test institutions. The processes shall be under the responsibility of qualified personnel of the Contractor and moreover the Contractor shall establish a comprehensive archive and library related to quality control.

The Contractor shall prepare details lists including tests, approvals, orders and delivery information related to quality control and other materials and products depending on approval. These lists shall be submitted to Engineer as they are updated, however once in a month under any circumstance.

Test results shall be delivered to Engineer at the end of the test in respect of determining the necessary precautions, if any. Test certificates, on the other hand, shall be submitted to the Engineer

- When the tests of the Production Plant and Manufacturer Company are completed or not later than 7 days before the date on which products should be used in the Work under any circumstance,
- Within 7 days following the completion of the test for those conducted during or upon completion of the continuous work.

### **3. ENVIRONMENTAL MANAGEMENT PLAN – (EMP)**

#### **3.1. GENERAL**

The Contractor shall comply with the provisions of the applicable Turkish legislation on environment protection that may affect the Project (the "Environmental Requirements"). In particular this shall include compliance with the following regulations (latest version of the below mentioned laws will be in placed):

Environment Law (no. 2872, date: 09.08.1983, published in the 11.08.1983 dated and 18132 y numbered Official Gazette, amended on 26.04.2006 no 5491),

Worker Health and Work Safety Act (published in the 11.01.1974 dated and 14765 numbered Official Gazette),

The Regulation for the Assessment and Control Air Pollution 2009

The regulation for the assessment and management of environmental noise (2008),

Water Pollution Control Regulation 2004

Solid Waste Control Regulation (published in the 14.03.1991 dated and 20814 numbered Official Gazette),

Hazardous Waste Control Regulation 2005

Cultural and Natural Assets Protection Law and relevant regulations

Waste Oil Control Regulation (21.01.2004 dated and 25353 numbered Official Gazette.)

Excavation Soil, Construction and Debris Waste Control Regulation (18.03.2004 dated and 25406 numbered Official Gazette)

Soil Pollution Control Regulation (31.05.2005 dated and 28831 numbered Official Gazette.)

The Contractor shall take all measures and precautions to avoid any nuisance or disturbance arising from the execution of Project Activities. This shall, wherever possible, be achieved by suppression of the nuisance at source rather than abatement of the nuisance once generated. The Contractor will also be required to compensate for any damage, loss, spoilage, or disturbance of the properties and health of the project affected people during construction. In conformance with the Contract Specifications of which these Environmental Provisions are a part, the Employer reserves the right to withhold payments and/or stop construction in the event of serious or repeated violations of the conditions stipulated herein.

The Contractor shall, at his own expense, obtain, retain in force and renew as necessary all Consents provided for by the Environmental Requirements of the Government of Turkey that are required to enable it to meet its obligations in designing and constructing the Project.

#### **3.2. REQUIREMENTS for ENVIRONMENTAL MANAGEMENT PLAN**

The Contractor shall establish, implement and maintain an Environmental Management Plan (EMP) and shall document all environmental Operations carried out on the Project during the Contract Period. The Environmental Management Plan shall be prepared to by the Contractor ensure that the application and execution of the mitigation and compensation measures are in compliance with the Environmental Requirements of the Project EIA. The final EMP shall be submitted for approval of the Engineer within 28 days after signature of the contract.

EMP shall be organized in five sections as follows:

- Management Acknowledgements.
- Organization & Staffing.
- Reporting Procedures.
- Environmental Management Provisions. The environmental mitigation and monitoring obligations required for inclusion within the EMP.

Review of the EMP will be provided by the Engineer and/or Employer following the receipt of all necessary information and documentation. The EMP shall be subject to the approval of the Engineer. Approval may be conditional as specified by the Engineer/Employer. The Engineer may also require periodic reviews, updating and supplements to the EMP in the course of the work. The Contractor shall particularly note that aspects of the EMP will affect the ability to commence work, including the following:

- Initial Safety Induction Courses are required for Contractor's staff within their first week on the Site.

#### 4. PARTICULAR TECHNICAL SPECIFICATIONS

Unless otherwise stated in particular technical specifications, the Contractor shall execute and complete the Works in strict accordance with the last updated editions of;

- Republic of Turkey Ministry of Environment and Urbanization "Construction Works, Civil, Mechanical Works and Electrical Works General Technical Specifications"
- Republic of Turkey General Directorate of Highways "Highways Technical Specifications"
- Union of Chambers of Turkish Engineers and Architects, Chamber of Landscape Architects Publication; Technical Specifications for Landscape Works

##### 4.1. EXCAVATION AND FILLING WORKS

Before bidding the contractual price, the contractor shall execute all site purchases in the project area and surrounding and shall prepare the related city maps, all related costs shall be covered by the contractor. The contractor shall include and take into respect any deficiencies, defects, if any and all measures to be taken around the project area in the bid price. After the tender, the contractor shall not request any price increase, claiming that either there is a discrepancy between the project area and the city maps provided by the administration or there are incomplete or wrong purchases. Also, any works (interception ditch, interception channel, supporting wall, culvert, areas needed to be filled etc.) which have to be made when taking the project area and surrounding into consideration and which are not stipulated in the tender documents, shall be deemed included in the contractor's bid price. Due to all the aforementioned matters, it is assumed that the contractor has visited the site before bidding and has prepared its bid in this respect. refuses, the organic and non-organic wastes shall be removed from the site by the Contractor.

Before starting the field works, the contractor shall be liable for field measuring and for obtaining approval from the administration. The works in scope of the project shall not commence without approval. No payment shall be made for works having started without approval. Any roads, ramps as well as excavation and filling works on-site and other locations according to the projects shall be made in compliance with the project elevations by the contractor. When an excavation reaches the planned ground, all excavated surfaces shall be inspected. In cases where any material below the standards have been identified, such material shall be replaced with material which is placed and compressed according to the filling requirements. Excavation material surplus shall be transported to the area specified by the administration.

Fillings shall be applied in layers of 25 cm thickness and shall be irrigated and compressed until achieving a standard proctor of 96%.

The ground shall be leveled and trimmed upon excavation and filling and a rubbed surface shall be achieved. The field elevations after the leveling shall be approved by the administration.

The filling material in the platform and ramp are of high importance. In order to prevent any slumps due to vehicle traffic, the filling shall consist of layers of 25 cm thickness using material which has been prepared by a 0 - 50 stabilized stone crusher. The mine and material shall be approved by the administration before bringing to the site and approved material shall be used only.

Upon preparing the field other productions shall be started.

##### 4.2. FACILITY GATEWAY

A facility gateway shall be made for preventing unauthorized access to the facility and to keep entry and exit in control. The facility gateway shall operate in type of a double leaf door.

The length of the gate shall be 9 m and shall be suitable for vehicle entry and exit at the same time. The gate shall be produced according to the architectural project detail sheets.

##### 4.3. WEIGHBRIDGE AND WEIGHHOUSE

The solid wastes being collected in the city center by small volume vehicles shall be weighed in the facility before transferring to vehicles of higher volume. The weighing shall be realized with fully-automatic electronic weighing machines (unmanned weighbridge system). For weighing purposes, an above ground weighing machine with dimensions of 4 x 16 meters and capacity of 60 tons shall be installed in the facility entry. The details of the weighing machine are given in its project and in the technical characteristics chart below.

A weigher control room of 2.4 x 3.64 m dimensions in which the computer hardware and printer of the weighing system shall be placed, shall be installed beside the weighing machine, in the administrative building. All electrical installations, cabling and electrical switchboard works are under the responsibility of the contractor. The contractor shall be liable for the weighing machine calibration upon completion of the works and for arranging a training related to the operation and maintenance of the weighing machine to the persons to be assigned by the administration.

During operation, an electronic ticket shall be printed upon weighing in the weighing house, which shall consist of three copies. One copy of the ticket shall be given to the truck driver upon weighing.

Lean concrete of 10 cm, stabilized filling and base platform of 25 cm thickness shall be made by the contractor as specified in the weigher project. A blockage of 15 cm shall be applied under the stabilized filling. Before starting the reinforced concrete production of the weigher, a comparison with the project of the weighing machine manufacturer shall be made and upon such comparison, the production shall commence.

#### **Weighbridge Technical Specification**

- The weigher manufacturer shall be certified with an ISO 9001:2008 quality assurance system.
- The weigher manufacturer shall be certified with 90384 AT certificate, related to the weighing devices.
- The references related to previously delivered weighing machines shall be attached to the bids.
- Catalogs, brochures, technical drawings and related documents shall be attached to the bids.
- Transport, assembly and start-up of the materials shall be conducted by the company.
- The first control and sealing procedures of the weighing machine shall be made by the company in accordance with the 90384 AT directives.
- A "Calibration Certificate" evidencing that the weighing machine is in compliance with European Standards and traceable shall be presented.
- The company shall provide a free-of-charge training for the operation of the weighing machine.
- The construction works related to the weighing machine shall be conducted by the contractor in accordance with the project to be provided by the weighing machine manufacturer.
- The transporting vehicle required during the assembly of the weighing machine shall be provided by the contractor.
- The warranty period shall be minimum two years.

#### **Material to be used and Technical Characteristics**

Following materials shall be used in the system:

- 1 piece of 4x16 cm foreground steel platform
- 8 pieces of 20 tons Load Cells
- Assembly accessories for 8 pieces of Load Cells-
- 1 piece of junction box
- 1 piece of weighing terminal
- 1 piece of monitor
- 1 piece of keyboard
- 1 piece of printer

#### **4x16 cm Foreground Steel Platform**

- The main beams shall be located at the longitude side edges of the platform. The beams shall be placed 25 cm above the platform level. The weighing machine platform shall be above ground and the platform height shall not exceed 36 cm from the ground.
- Gas metal arc welding shall be applied in the welded connection points of the weighing machine.

- All surfaces of the platform shall be coated with two layers of paint base and one layer of synthetic paint.
- The weighing machine shall be designed in such way, being capable of operating under overload of 30% over the nominal capacity.
- Weighing shall be made without any need for a side load-feeding system.

#### **Load Cells**

- The weigher shall be equipped with 8 units of load cells with 20 tons capacity.
- The load cells shall be of 1/3000 precision, class C3 and OIML certified.
- Protection class shall be IP 68, and shall be water-proof according to DIN 40050 norms.
- Output shall be 2 mV/V.
- Operating temperature shall be -40 to +60 C. Hysteresis and non-linearity fault shall not be higher than 0,03 %.
- Calibrated heat area shall be -10, +40 C.
- The load cells shall be capable of weighing at the same precision even at 150% of the allowed value.
- The load cells shall operate without any defects even when a load of 200% of the nominal value is applied.
- Rubber based assembly accessories shall be used at the bottom of the load cells against sudden moves of the trucks towards the weighing machine and against irregular loads to the weighing machine at entry and exit.
- The CALIBRATION CERTIFICATES which shall include the failure graphics showing that the failure limits of all test results are in compliance with OIML 3000d shall be presented by the manufacturer for each load cell.

#### **4.4. WATER TANK**

A steel modular water tank of 3.750-liter capacity shall be installed in the site, together with air pressure tank and all sanitary installation, for the purpose of providing domestic water for the transfer station. At the first stages, the tank shall be filled with water, externally supplied by water tankers. Later on, if possible, the administration shall drill a well or install a pipe-line to the city water supply and shall provide connection to the tank.

A line shall be installed for the 3.750 Liter steel modular Water Tank to the area where the disassembly container and bunkers are located for cleaning the area. The air pressure tank system shall be selected in such way that it shall provide the pressurized water demand of the whole facility. The required measures to prevent any damage in the air pressure tank system from winter conditions, and for clean water pipes either polyethylene pipes (underground) or pprc or galvanized steel pipes (over ground) shall be used.

The water tank plans and intersections take place in the projects and;

- 0.25 m Slab Concrete (C25/30) with Double Layer Wiremesh (2x2 Q188/188)
- 0.20 m Compacted Stabilized Fill
- 0.90 m sub base layer (granular material) shall be applied.
- 0.10 m poor concrete will be applied.

The water supply pipes in the site shall be of the diameters and characteristics as specified in their projects and the pipes shall be placed and filled into the trenches in accordance with their projects.

The compressing of the filling shall be realized according to the non-precipitating filling requirements. The connections shall be provided from the main water pipe with appropriate t-elbows and other necessary equipment.

The technical specifications, pressure curves and similar documents of the air pressure tank system shall be presented to the control organization before the supply of such equipment.

#### **4.5. CESSPIT**

A fully leak-proof cesspit of 32 m<sup>3</sup> and 32 m<sup>3</sup> capacity shall be installed for the collection of the facility's waste water. A weighing staff and a security staff shall be available in the facility, continuously. The 32 m<sup>3</sup> cesspit has been selected, taking into respect that waste collection truck drivers, heavy truck drivers and the accompanying cleaning staff may use WC, lavatory and shower. The garbage waters from the garbage collection vehicles and trucks shall be collected in the cesspit with a capacity of 32 m<sup>3</sup>. The cesspit shall be fully leak-proof and shall be discharged by sewage trucks



when full. It shall be ensured that the garbage waters which may appear during discharge of trucks to the bunkers and which may leak from garbage water discharge valves of the trucks shall be collected and transferred to the cesspit through the pipeline.

In respect with environmental health, it is essential that the cesspit shall be leak-proof and shall be discharged when full, at once. All projects of the cesspit are specified in the related design sheets.

#### **4.6. WASTE SPILLING PLATFORM, ENTRY-EXIT RAMPS AND ROADS**

Upon the completion of the field leveling works of the facility area, a platform on which the vehicles shall spill the wastes shall be constructed. The Platform dimensions shall be as specified in its project and the height shall be  $h=6,00$  m. One discharge bunker shall be available in the platform. A reinforced concrete ramp shall be constructed on the platform for the entry and exit of vehicles. The ramp length shall be 340 m. Detailed projects are given in the related design sheets. During the Platform construction, the form work, concrete and structural bars shall be produced according to science and craft rules.

The number of bunkers on the platform has been planned as 1, in order to restrict heavy traffic of vehicles on the platform.

Any excavation works required for the construction of buildings specified in the project shall be provided by the contractor. Safety rails made of iron pipes which shall surround the spill platform consisting of concrete section buildings and the entry-exit ramp shall be made by the contractor.

The safety rails shall be made of profile as specified in the details of the project and profile supply, assembly and any transport and labor shall be provided by the contractor. The anchorage of the safety rails into the reinforced concrete wall shall be made by the contractor. The safety rails shall be coated with 2 layers of anti-rust and 2 layers of oil paint, by the contractor.

The width of the roads and platform shall be 8 m minimum. The slope of the ramp shall be  $\%11,27 - \%2,08$  to  $\%3,69$  as specified in its project. The shear walls around the ramp shall be constructed as per its project.

The necessary patterns on the concrete coated surfaces of the waste spill platforms and entry-exit ramps enabling comfortable road handling for trucks shall be available and the contractor shall ensure that the concrete coated surfaces shall be non-slip.

Concrete coating of roads, ramp, platform and filed coatings shall be constructed by placement and compression of following layers:

- 0.20 m C25/30 concrete (2XQ188/Q188 wiremesh)
- 0.25 m base layer (sand, gravel)
- 0.25 m sub base layer (granular material)

All coated areas shall be equipped with systems for collection and discharge of surface water.

The concrete used in the shears and base constructions shall be of class C25/30, concrete strength tests shall be applied by sampling at each  $100 \text{ m}^3$  minimum and the test results issued by accredited laboratories shall be submitted to the administration.

All above the aforementioned items take place in the architectural project.

#### **4.7. WASTE LOADING BUNKER**

One waste loading bunker shall be available in the platform which shall be constructed by the contractor. The height of the bunker shall be 6.00 m above the ground and 6 m above the platform. The bunker carrying structure shall be made of steel construction. The roof and three faces shall be covered with galvanized and coated corrugated steel sheet (38/906-0.70 mm). By this way, the wetting of wastes by rain shall be prevented.

By the aid of the bunker system, the waste trucks with automatic compression approaching under the bunker shall be filled with waste spilled from above without any need for intervention. The waste shall not be stored in the bunker for long times. The spilled waste shall be transferred directly into the trucks. The spilling of garbage water shall be prevented as well. Nevertheless, surfaces which garbage water has spilled on shall be cleaned with clean water and shall be transferred to the cesspit through the sanitary installation, without flowing under the soil.

#### 4.8. SITE SURROUND/EXTERIOR LIGHTING

As the facility shall operate at nights as well, exterior lighting shall be provided in the site. All necessary cabling works in this respect shall be conducted in accordance with its project. The works to be conducted are specified in the electrical application project design sheets. The temporary acceptance of the installation shall be conducted by the related electricity distribution company on the order of the contractor.

Alternatively, the removal of shutters shall be determined by the demanded compressive strength of the concrete with Section 4.4.1

#### 4.9. SURFACE WATER DRAINAGE CHANNELS

Drainage channels shall be constructed at all slope bottoms and road slopes being split in the facility, for the purpose of removing rain and surface water in a safe manner. The drainage channels are planned concrete coated and with corrugated sections.

All works shall be constructed according to their shop drawings and to science and craft rules.

#### 4.10. SURROUNDING WIRE FENCE CONSTRUCTION

The facility shall be encircled with wire fences as shown in the related project and typical sections. The site shall be secured with wire fences in order to prevent unauthorized access and intervention of wild animals etc. The wire fences shall be applied from the borders of assigned land. In the course of the wire fence production, the posts shall be straight, unbroken and fixed properly.

- Holes of 50cm depth and 40x50 cm dimension (50x50 cm for wire fence application of 3 meters) shall be prepared with a distance of 3 meters, on the soil ground.
- Nato type concrete fence posts shall be erected in these holes.
- Double-side stopper buttresses shall be installed in the middle of the posts every 45 meters and at each corner.
- Spiral weaving wire (galvanized or PVC coated) shall be installed on the plain part of the post.
- Guy wires (galvanized or PVC coated) shall be installed in three lines being at the top, middle and bottom of the weaving wire.
- The weaving wire, guy wire and barb wire shall be bonded to the concrete posts by bonding wire.
- 4 pieces of iron bars with 6 mm thickness and 4 to 7 stirrups in average shall be used in the concrete fence posts against cracks and breaking.
- The length of the post shall be 300 cm.

In the course of the wire fence application, the materials deemed as necessary by the contractor shall be presented to the control organization before the supply of such material.

#### 4.11. ADMINISTRATIVE BUILDING

An administrative building shall be constructed as a head office of the facility. Due to this characteristic, the administrative building shall be positioned in such sight distance, allowing the observation of other units. In the administrative building which is designed as prefabricated;

- Main Entrance
- Weigher Control Office
- Meeting Room- Office
- Office
- Kitchen
- Storage/wareroom
- Toilet
- Toilet for Handicapped
- Medicine Cabinet

- Laboratory
- Water tank room

shall be available. This building shall serve the administrative personnel using the facility. It shall also embody the equipment required for the monitoring and recording of the incoming vehicles as well as for weighing the incoming vehicles.

Therefore, the said building shall be located across the weigher. The single-store building has a rectangular form and takes a space of 101,65 square meters.

**Technical Specifications:**

Outer wall (120mm thickness): Prefab Wall + 2 layers of water based paint

Isolation : Rock wool, 4 cm

Inner Wall (100mm thickness): Prefab Wall + 2 layers of water based paint

Isolation : Rock wool filling, 4 cm

Roof : Roof Coating : Pre-painted trapezoid galvanized steel

Isolation : Rock wool, 5 cm

External doors: PVC

Inner doors: MDF Lamellar Pressed Panel

Windows: Double glazed PVC

Access to the weigher control office from the building's main entrance shall be available and a separate door shall be available

for direct access to the weigher. Also, a separate access door shall be available for the laboratory. The ground of the building shall be floored with ceramic tiles, the external environment of the building shall be floored and a ramp for handicapped shall be available.

Local fire extinguishers and fully equipped fire stations shall be available in the building. Storage of reinforcement shall be on racks or supports clear of the ground. Different types and sizes of reinforcement shall be kept separate.

**4.12. IN-SITE LANDSCAPE**

Upon completion of the works, the whole soil surface within the site shall be leveled with vegetable soil of 30 cm thickness, shall be covered with grass and shall be handed over to the employer in clean condition and allowing botanicseeding.

## SECTION 5A.2 SPECIFICATIONS FOR ITEMS/POSE DEFINITIONS

Official item definition from the related book shall prevail, in case of any inconsistency and vagueness about item definition.

### Construction Works

Item no:	Item	Unit	Quantity
Y.15.001/2B	Excavation of soft and hard soil at any width and depth by machine (Deep excavation)	m <sup>3</sup>	2,046.47
<b>Description/ Specifications</b>	<p>Technical Description: In soft and hard skirting; Excavation with machinery, transportation up to 25 meters, unloading of the warehouse, sign or sill in the ground, laying, filling of the spaces remaining at the excavation site after the construction has been done, all kinds of materials made for laying and repairing the bottom and side walls of the excavated floor, and excavation price of 1 m<sup>3</sup> including waste, labor, tools and equipment expenses, contractor general expenses and profit:</p> <p>MEASURE: The excavation volume is calculated on the excavation project.</p> <p>NOTE:</p> <p>1) This unit does not include water hike, transportation outside the 25 meters, irrigation and compression costs.</p> <p>2) Depreciation is not paid.</p>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
Y.15.006/2B	Excavation of soft and hard loose at any depth and width by machine (Deep excavation)	m <sup>3</sup>	4,775.09
<b>Description/ Specifications</b>	<p>Technical Description: In soft and hard skirting; Excavation with machinery, transportation up to 25 meters, unloading of the warehouse, sign or sill in the ground, laying, filling of the spaces remaining at the excavation site after the construction has been done, all kinds of materials made for laying and repairing the bottom and side walls of the excavated floor, and excavation price of 1 m<sup>3</sup> including waste, labor, tools and equipment expenses, contractor general expenses and profit:</p> <p>MEASURE: The excavation volume is calculated on the excavation project.</p> <p>NOTE:</p> <p>1) This unit does not include water transportation outside the 25 meters, irrigation and compression costs.</p> <p>2) Depreciation is not paid.</p>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
N.012	Transport of excavation surplus material to the warehouse at 1 km distance	m <sup>3</sup>	4,018.91
<b>Description/ Specifications</b>	Transport of excavation surplus material to the warehouse at 1 km distance		
<b>Book</b>	İller Bank		

Item no:	Item	Unit	Quantity
KGM/2205	Irrigation and compression of any type of soil	m <sup>3</sup>	2,802.65
<b>Description/ Specifications</b>	Technical Description: Irrigation and compression of any type of soil in line with the principles of the related sections of the KTŞ. Costs included in the unit price: Water supply by motor pump, supply of irrigation and compression machines to the workplace, irrigation of any type of soil for filling floored at any desired thickness depending on the compression machines according to specification until optimum humidity is achieved, compression of material with appropriate compression machines, any labor, material, machine, tool and equipment, contractor profit and overheads, excluding the works and material stated under the heading "costs not included in the unit price". Costs not included in the unit price: Water supply to the workplace. Measurement: The volume in cubic meters of the filling prepared by irrigation and compression. Payment: To be made in accordance with the m <sup>3</sup> unit price in the unit price bid chart - Poz KGM/2205' "Irrigation and Compression of any type of soil".		
<b>Book</b>	Republic of Turkey General Directorate of Highways		

Item no:	Item	Unit	Quantity
Y.15.140/04	Supply of gravel and flooring, irrigation and compression by machine	m <sup>3</sup>	368.00
<b>Description/ Specifications</b>	Technical Description: Supply of gravel, discharge on the field, flooring by motor grader, irrigation, compression of each layer separately by vibrating rubber-tired roller, labor, material and wastage, loading, vertical and horizontal transport, unloading, contractor profit and overheads. MEASUREMENT: Volume shall be calculated according to the dimensions in its project.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
KGM/6040	Formation of base layer ((with crushed and screened quarry stone (1 inch))	m <sup>3</sup>	1,197.69
<b>Description/ Specifications</b>	Technical Description: Foundation construction using 25 mm ("1") quarry stone, crushed by stone crusher and screened material in accordance with the principles and terms stated in the related sections of the KTŞ. Costs included in the unit price: Extraction of stones from the mine, crushing to sizes appropriate for stone crusher, loading on to vehicles, transport between mine and stone crusher of distance up to 150 meters, unloading, feeding to stone crusher, grain size and characteristics research, crushing by stone crusher for achieving the grain size specified in the KTŞ, screening, loading to vehicles, unloading and figuration, water supply by water pump, layering the foundation material by optimum water supply, compression, any labor, material, machine, tool and equipment, contractor profit and overheads, excluding the works and material stated under the heading "costs not included in the unit price". Costs not included in the unit price: Transport between the mine and stone crusher exceeding 150 m in average, transport of material from the stone crusher to the workplace, water transport. Measurement: The volume in cubic meter, calculated on the figuration dimensions of the floored and compressed material, without taking into respect the bulking and slump before the layering. Payment: To be made in accordance with m <sup>3</sup> unit prices in the Unit Price Bid Chart - Poz KGM/6040' "Foundation [with crushed and screened quarry stone (1'')]"'. Note: (1) Figuration shall be in the place, form and dimension as requested by the administration and shall be made by figuration machine. (2) The contractor shall protect the figuration and shall remove any slumps and deformations.		
<b>Book</b>	Republic of Turkey General Directorate of Highways		

Item no:	Item	Unit	Quantity
KGM/6100/3-1	Plant-Mix Subbase production (with crushed and screened quarry stone)	Ton	2,155.84
Description/ Specifications	<p>Technical Description: Plant-Mix Sub base construction, using crushed and screened quarry stones and layered by finisher according to the principles and terms of the related sections of the KTŞ.</p> <p>Costs included in the unit price:</p> <p>Supply, assembly and disassembly of any required machine an equipment, extraction of stones from the mine, crushing up to size suitable for stone crusher, loading to vehicles, transport between the mine and stone crusher of distance up to 150 meters, unloading, feeding to stone crusher, crushing and screening in stone crusher until achievement of grain size required by the administration or specified in the specification, regular screening and grain size adjustment, discharge of the stone crusher bottom, loading of crushed aggregate to vehicles, unloading to plant field and storage, loading from storage place to trucks, transport to field silo and unloading, rodding by hand, if necessary for achieving good flow of aggregate in the silo, transfer from silo to mixing plant, water supply by motor pump and filling the water tanks, feeding into mixer, mixing of aggregate and water, loading of mixed material to trucks, waiting at plant and weighing, research and technical supervision, weighing of material by automatic weigher with bill printer at a capacity required by the administration, waiting of trucks until their turn comes, discharge of material to finisher, flooring of material by finisher at referencing, axis, cross-section and elevation given by the administration, correction of faults manually, making, cleaning, adjusting, irrigating and compressing longitudinal and transverse joints, fine adjustment, irrigation of floored material, compression by vibrating and rubber-tired roller, any labor, material, machine, tool and equipment, contractor profit and overheads, excluding the works and material stated under the heading "costs not included in the unit price".</p> <p>Costs not included in the unit price:</p> <p>Transport between the mine and stone crusher at distance exceeding 150 meters, transport of aggregate to plant field, transport of water to work place and transport of mixture to place of flooring.</p> <p>Measurement: Is the weight in tons found by weighing the prepared, floored and compressed mixture used in the sub base layer.</p> <p>Payment:</p> <p>To be paid over the ton unit price in the Unit Price Bid Chart - Poz KGM/6100/3-1 "Plant-Mix Sub Base Foundation (by crushed and screened quarry stone)".</p> <p>Note:</p> <p>(1) As the contractor is obliged to make the production according to the mixture design approved by the administration, no changes shall be made in the unit price due to design changes.</p> <p>(2) If the final average distance between the mine and stone crusher should be over 150 and under 10.000 m upon the administration's approval; transport cost for (M) meters shall be paid using following formula:</p> $F = A \times 1,25 \times 0,00017 \times K \times \text{square root}(M) - 0,00260 \times K \text{ TL/ton.}$ <p>In this formula, (square root(M)), (K), (A) and (Y), are the same as in Poz 07.005/K.</p> <p>If the final average distance between the mine and stone crusher should be over 10.000 m upon the administration's approval; transport cost for (M) meters shall be paid using following formula</p> $F = A \times 1,25 \times K \times (0,0007 \times M + 0,01) - 0,00260 \times K \text{ TL/ton.}$ <p>In this formula, (square root(M)), (K), (A) and (Y), are the same as in Poz 07.006/K.</p>		
Book	Republic of Turkey General Directorate of Highways		



Item no:	Item	Unit	Quantity
KGM/15.150/K	Laying the sub base and base material	m <sup>3</sup>	2,395.38
<b>Description/ Specifications</b>	<p>After B-15.044-In line with completion of the works of engineering structure and earth works on the way, they shall be placed on the motorized grader in accordance with the shapes, sizes and rims of the slopes, ditches, fillings and slopes of the fine leveling surface as described in section 9 of the Roads Technical Specifications attached to the contract, Leveling machines, as well as the price per kilometer of the way in which all kinds of workmanship, materials and expenses necessary for the finishing of the hand work as well as the fine leveling by hand are included, including the contractual profit and general expenses.</p> <p>Sand, gravel, clay, crushed stone, sand, stabilize and similar materials to be made.</p> <p>Unit Fees Included Costs:</p> <p>Any kind of and workmanship required for the construction of sand, gravel, clay, Materials, machinery, tools and utilities, and contractor profits and overheads.</p> <p>Unit Price Incomparable Costs: There is no expense not included in the unit price.</p> <p>Measure: The volume of the shaped material is the volume in cubic meters, which is calculated without regard to the swelling and collapse of the figure.</p> <p>Payment: Unit Price Bidding Schedule Exposure is done at the unit price of "m<sup>3</sup> (Sand, Gravel, Clay, Crushed stone, Stabilize, etc.)" in KGM / 15.150 /</p> <p>Note: These poses; If the price of the above-mentioned materials, which are formed upon request of the buyer, is not included in the unit price, it is applied.</p>		
<b>Book</b>	Republic of Turkey General Directorate of Highways		

Item no:	Item	Unit	Quantity
N-041	Transport price to base and subbase material from 20000 m distance	Ton	4,311.68
<b>Description/ Specifications</b>	<p>Technical Description: Note: The transport prices stated in Table 1 are calculated from the formula in the İller Bankası (Bank of Provinces) analysis book and shall be applied for Base and subbase materials (excluding loading, unloading, stapling and 25% contractor profit and overheads)</p>		
<b>Book</b>	İller Bank		

Item no:	Item	Unit	Quantity
KGM/16.002/K	Plain concrete at each dosage (with concrete mixer)	m <sup>3</sup>	185.54
<b>Description/ Specifications</b>	<p>Technical Description: Preparation of plain concrete by concrete mixer at each class according to the instructions to be given by the administration and in compliance with the principles and conditions stated in the related sections of the KTŞ. Costs included in the unit price: Supply and storage of required machinery and equipment and water, and if necessary, chemical curing material and all-in material, sand and gravel screened and irrigated according to its grain size, loading and unloading of these material, weighing or if allowed by the administration, volume measuring and feeding into concrete mixer with required amount of cement and water according to the concrete mix design report approved by the administration, mixing, loading, vertical and horizontal transport, unloading, layering, compression, protection from heat and cold, curing by using water or chemical curing material if necessary, sampling, laboratory services and all labor, material, machinery, tool and equipment, contractor profit and overheads, excluding the works and material stated under the heading "costs not included in the unit price". Costs not included in the unit price: Cost of cement to be used within the construction, loading, unloading and stapling, supply of chemicals and mineral ingredients if to be used, transport of cement, sand and gravels to the workplace. Measurement: The measured volume in cubic meters of the implemented concrete. Payment: To be made in accordance with the m<sup>3</sup> unit price in the unit</p>		

	price bid chart - Poz KGM/16.002/K "Plain concrete at every dosage (by concrete mixer)".
<b>Book</b>	Republic of Turkey General Directorate of Highways

Item no:	Item	Unit	Quantity
Y.21.001/03	<b>Production of reinforced concrete plain surface form works with plywood</b>	m <sup>2</sup>	3,529.00
<b>Description/ Specifications</b>	<p>Technical Description: 1 m2 unit price of production reinforced concrete plain surface form works made of 21 mm thickness plywood (filmed) artificial wood and inner surface lubricated according to the project and specification, including their disassembly, strengthening against the vibration required, material and their outages, vertical and horizontal transport at workplace, loading-unloading, labor, contractor profit and overhead costs. MEASUREMENT: The surfaces facing the form works shall be calculated from their project or by measuring at site. The surrounding form works of production holes which their gap volume has not been reduced shall be not taken into the measurement. No hole gap shall be extracted from the hole side at the form side. NOTE 1) The form works scaffolding shall be paid separately. 2) The material extracted from the forms shall be the contractor's property.</p>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity															
Y.23.014	Cutting, bending and placement of Ø 8- Ø 12 mm deformed concrete steel bars	ton	33.58															
Description/ Specifications	<p>Technical Description: 1-ton unit price of deformed concrete steel bar including the cutting, bending and placement of such bars according to the application project, iron bonding wire and any material required for binding the bars and outages, loading, vertical and horizontal transport and unloading at workplace, labor, contractor profit and overhead costs.</p> <p>MEASUREMENT:</p> <p>1) The length of the iron including crotchets shall be measured according to the concrete application drawings.</p> <p>2) The weights of the steel bars shall be taken from the chart below.</p> <p>3) Steel bars and joints which are not shown in the project shall not be taken into the calculation.</p> <p>4) The weights (m) in the chart are base for calculation. As bonding wires, steel parts used in the alignment of steel bars and outages are considered in the analysis, no additional payment shall be made.</p> <table><tr><th colspan="2">Diameter (Ø)</th><th>Unit weight</th></tr><tr><th>mm</th><th></th><th>Kg/m</th></tr><tr><td>8</td><td></td><td>0.395</td></tr><tr><td>10</td><td></td><td>0.617</td></tr><tr><td>12</td><td></td><td>0.888</td></tr></table>			Diameter (Ø)		Unit weight	mm		Kg/m	8		0.395	10		0.617	12		0.888
Diameter (Ø)		Unit weight																
mm		Kg/m																
8		0.395																
10		0.617																
12		0.888																
Book	Republic of Turkey Ministry of Environment and Urbanization																	

Item no:	Item	Unit	Quantity
Y.23.015	<b>Cutting, bending and placement of Ø 14- Ø 28 mm deformed concrete steel bars</b>	ton	71.60
<b>Description/ Specifications</b>	<p>Technical Description: 1-ton unit price of deformed concrete steel bar including the cutting, bending and placement of such bars according to the application project, iron bonding wire and any material required for binding the bars and outages, loading, vertical and horizontal transport</p>		

	<p>and unloading at workplace, labor, contractor profit and overhead costs.</p> <p><b>MEASUREMENT:</b></p> <p>1) The length of the iron including crotchets shall be measured according to the concrete application drawings.</p> <p>2) The weights of the steel bars shall be taken from the chart below.</p> <p>3) Steel bars and joints which are not shown in the project shall not be taken into the calculation.</p> <p>4) The weights (m) in the chart are base for calculation. As bonding wires, steel parts used in the alignment of steel bars and outages are considered in the analysis, no additional payment shall be made.</p> <table> <tr> <th colspan="2">Diameter (Ø)Unit Weight</th></tr> <tr> <th>mm</th><th>Kg/m</th></tr> <tr> <td>14</td><td>1.208</td></tr> <tr> <td>16</td><td>1.578</td></tr> <tr> <td>18</td><td>1.998</td></tr> <tr> <td>20</td><td>2.466</td></tr> <tr> <td>22</td><td>2.984</td></tr> <tr> <td>24</td><td>3.551</td></tr> <tr> <td>26</td><td>4.168</td></tr> <tr> <td>28</td><td>4.834</td></tr> </table>	Diameter (Ø)Unit Weight		mm	Kg/m	14	1.208	16	1.578	18	1.998	20	2.466	22	2.984	24	3.551	26	4.168	28	4.834
Diameter (Ø)Unit Weight																					
mm	Kg/m																				
14	1.208																				
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<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization																				

Item no:	Item	Unit	Quantity
<b>N-093</b>	<b>Transport price to 360.000 m distance</b>	<b>ton</b>	<b>146.87</b>
<b>Description/ Specifications</b>	Technical Description: Note: The transport prices stated in Table 1 are calculated from the formula in the İller Bankası (Bank of Provinces) analysis book and shall be applied for Reinforcement (excluding loading, unloading, stapling and 25% contractor profit and overheads)		
<b>Book</b>	İller Bank		

Item no:	Item	Unit	Quantity																											
Y.23.010	Ribbed wire mesh (1.50-3.00 kg/m2) Installation (including 3.00 kg / m²)	ton	40.37																											
Description/ Specifications	<p>Technical description: Mounting in accordance with the project of the steel masonry with the spot-welded joints of the stabs of the St IVb of 5,00 mm and bigger, and installation and support in accordance with the specifications and details, installation at the construction site, horizontal and vertical transportation, Price of 1 ton wire mesh including unloading, all kinds of materials and losses, labor, tools, equipment expenses, contractor general expenses and profits</p> <p>MEASURE: 1) According to the reinforced concrete project, the calculated square of the steel mesh is multiplied by the weights shown in the following table and calculated as tons.</p> <p>2) Steel and inserts not shown in the project are not included in the account.</p> <p>3) Bonded, kg / m weight differences (relative to the table) are not included in the calculation as the support is included in the loss in the analysis</p> <div><div>STEEL DAMAGE TABLES RANGE BY Kg / m² (One way)</div><table><tr><th>Diameter</th><th>Kg/m.</th><th>50mm</th><th>75mm</th><th>100m m</th><th>150m m</th><th>200m m</th><th>250m m</th><th>300m m</th></tr><tr><td>4.0</td><td>0.099</td><td>1.97</td><td>1.32</td><td>0.99</td><td>0.66</td><td>0.49</td><td>0.39</td><td>0.33</td></tr><tr><td>5.0</td><td>0.154</td><td>3.08</td><td>2.06</td><td>1.54</td><td>1.03</td><td>0.77</td><td>0.62</td><td>0.51</td></tr></table></div>			Diameter	Kg/m.	50mm	75mm	100m m	150m m	200m m	250m m	300m m	4.0	0.099	1.97	1.32	0.99	0.66	0.49	0.39	0.33	5.0	0.154	3.08	2.06	1.54	1.03	0.77	0.62	0.51
Diameter	Kg/m.	50mm	75mm	100m m	150m m	200m m	250m m	300m m																						
4.0	0.099	1.97	1.32	0.99	0.66	0.49	0.39	0.33																						
5.0	0.154	3.08	2.06	1.54	1.03	0.77	0.62	0.51																						

	5.5	0.187	3.73	2.49	1.87	1.24	0.93	0.75	0.62
	6.0	0.222	4.44	2.96	2.22	1.48	1.11	0.89	0.74
	6.5	0.260	5.21	3.47	2.60	1.74	1.30	1.04	0.87
	7.0	0.302	6.04	4.03	3.02	2.01	1.51	1.21	1.01
	7.5	0.347	6.94	4.62	3.47	2.31	1.73	1.39	1.16
	8.0	0.395	7.89	5.26	3.95	2.63	1.97	1.58	1.32
	8.5	0.445	8.91	5.94	4.45	2.97	2.23	1.78	1.48
	9.0	0.499	9.99	6.66	4.99	3.33	2.50	2.00	1.66
	9.5	0.556	11.13	7.42	5.56	3.71	2.78	2.23	1.85
	10.0	0.617	12.33	8.22	6.17	4.11	3.08	2.47	2.06
	10.5	0.680	13.59	9.06	6.80	4.53	3.40	2.72	2.27
	11.0	0.746	14.92	9.95	7.46	4.97	3.73	2.98	2.49
	11.5	0.815	16.31	10.87	8.15	5.44	4.08	3.26	2.72
	12.0	0.888	17.76	11.84	8.88	5.92	4.44	3.55	2.96
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization								

Item no:	Item	Unit	Quantity
Y.16.050/16	<b>Concreting of C 30/37 compressive strength class concrete being manufactured at a concrete plant or purchased (including concrete transport)</b>	m <sup>3</sup>	1,042.00
<b>Description/ Specifications</b>	<p>Technical Description: 1 m<sup>3</sup> price of concrete with compressive strength C 30/37 being poured at site including: the supply of ready concrete manufactured at a complete concrete facility (minimum 60m<sup>3</sup>/h capacity, with four unit aggregate bunker compressor, computer controlled with control cabin, min. 50 ton capacity cement silo and conveyor system, recycling unit, laboratory for aggregate and concrete tests, generator, sufficient number of truck mixers and mobile concrete pumps and at least one loader, ingredient tank and ingredient tank bunker, humidity-meter and similar tools and equipment) compliant to the standards and the project, manufactured with washed, screened granulometric sand-gravel and/or ballast, cement, water and ingredients if necessary at C 30 / 37 class or having same characteristics; execution of concrete quality controls, loading to truck mixers, transportation to the work place, pouring by concrete pump to the pouring place, placement, compression with vibrator, irrigation, protection from cold, heat and other external effects and maintenance, taking sufficient number of samples for necessary and adequate tests and execution such tests, any labor, tool and equipment and outages, laboratory expenses for the aforementioned, any vertical and horizontal transport in the work place, loadings and unloading, loading of any granulometric sand, gravel or ballast and cement which is a part of concrete from the place of production, supply or purchase, transport to the concrete facility, unloading from vehicles, stapling, placement into the concrete facility, supply and transport of water for irrigation in the concrete, supply of concrete facility and all other equipment and its amortization expenses, any other expenses, contractor profit and overhead costs</p> <p><b>MEASUREMENT:</b> To calculated over the dimensions in the project.</p> <p><b>NOTE:</b> 1) The facility which the concrete is manufactured at or purchased from shall have all certifications required by the TSE and legislation and such documents have to be submitted to the administration before starting the production. Provided that only after it has been identified that the submitted documents are compliant and the use is allowed, such concrete produced or</p>		

	<p>purchased from such facility, with compliance certificate and bearing the conditions of the applicable legislation and market supply terms can be used.</p> <p>2) If the concrete is supplied by purchase, one copy of the purchase invoices which shall show the name of the works shall be added to the payment documents.</p> <p>3) The cost of ingredients to be added to the concrete shall be paid separately.</p>
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
<b>Y.16.050/15</b>	<b>Concreting of C 25/30 compressive strength class concrete being manufactured at a concrete plant or purchased (including concrete transport)</b>	<b>m<sup>3</sup></b>	<b>1,094.50</b>
<b>Description/ Specifications</b>	<p>Technical Description: 1 m<sup>3</sup> price of concrete with compressive strength C 25/30 being poured at site including: the supply of ready concrete manufactured at a complete concrete facility (minimum 60m<sup>3</sup>/h capacity, with four unit aggregate bunker compressor, computer controlled with control cabin, min. 50 ton capacity cement silo and conveyor system, recycling unit, laboratory for aggregate and concrete tests, generator, sufficient number of truck mixers and mobile concrete pumps and at least one loader, ingredient tank and ingredient tank bunker, humidity-meter and similar tools and equipment) compliant to the standards and the project, manufactured with washed, screened granulometric sand-gravel and/or ballast, cement, water and ingredients if necessary at C 25 / 30 class or having same characteristics; execution of concrete quality controls, loading to truck mixers, transportation to the work place, pouring by concrete pump to the pouring place, placement, compression with vibrator, irrigation, protection from cold, heat and other external effects and maintenance, taking sufficient number of samples for necessary and adequate tests and execution such tests, any labor, tool and equipment and outages, laboratory expenses for the aforementioned, any vertical and horizontal transport in the work place, loadings and unloading, loading of any granulometric sand, gravel or ballast and cement which is a part of concrete from the place of production, supply or purchase, transport to the concrete facility, unloading from vehicles, stapling, placement into the concrete facility, supply and transport of water for irrigation in the concrete, supply of concrete facility and all other equipment and its amortization expenses, any other expenses, contractor profit and overhead costs</p> <p>MEASUREMENT:</p> <p>To calculated over the dimensions in the project.</p> <p>NOTE:</p> <p>1) The facility which the concrete is manufactured at or purchased from shall have all certifications required by the TSE and legislation and such documents have to be submitted to the administration before starting the production. Provided that only after it has been identified that the submitted documents are compliant and the use is allowed, such concrete produced or purchased from such facility, with compliance certificate and bearing the conditions of the applicable legislation and market supply terms can be used.</p> <p>2) If the concrete is supplied by purchase, one copy of the purchase invoices which shall show the name of the works shall be added to the payment documents.</p> <p>3) The cost of ingredients to be added to the concrete shall be paid separately.</p>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
Y.21.050/C11	Mold Scaffolding from steel pipe (between 0.00 – 4.00 m)	m <sup>3</sup>	1,234.00
<b>Description/ Specifications</b>	<p>Technical description: Construction and industrial manufacture of steel scaffolding, which is subject to the standard and approved project when it is required to be carried out by the standard and approved project, installation and dismantling of the scaffolding by taking necessary safety precautions, all kinds of materials and casualties, loading on construction site, horizontal and vertical transportation, , Vehicle and equipment expenses, contractor general expenses and profit, 1 m3 price:</p> <p>MEASURE:</p> <p>1) The gap between the face of the mold and the industrial production falling within the scope of this measure and the ground to which the scaffold is subjected is calculated. If the ceiling is inclined, the moderate altitude is the basis.</p> <p>2) When applied to these exposed tunnels or galleries, the gap between the bottom surface of the gallery or tunnel arch and the floor where the screed is applied is calculated.</p> <p>3) This pose is applied in water depot construction scaffoldings falling within the scope of this measure. In this case, the gap between the concrete water tank ceiling and the ground to which the scaffold is attached is calculated.</p> <p>4) The scaffold width required for frames, beams and columns not to be built together with the floor is determined.</p> <p>NOTE:</p> <p>1) The volume of steel pipes and timber used in scaffolding and casting, and the volume of construction elements (gusseler, beams, columns, curtains, water reservoirs and similar construction elements ..) in the space shall not be deducted from the scaffold cavity volume.</p> <p>2) Length and other tunnel hikes for tunnels and galleries are also applied to these poses in a certain way.</p> <p>3) In the buildings, triangular pier hollow spaces carrying concrete masonry, balconies, concrete, concrete retaining walls, curtains and similar molds are calculated. The triangular horizontal size can not be more than half of the mold height.</p> <p>4) Concrete wall with a height of less than one meter. Inverted beam width is less than 0,50 m. Portafo and fringes are not provided with scaffolding for door window lentolas with an opening of 1.50 m.</p> <p>5) Since the mold scaffolding will be installed for the reinforced concrete scaffoldings, concrete scaffolding and concrete screed which remain in the building, independent columns and similar productions are not allowed with mold scaffolding.</p> <p>6) This price shall not be applied for construction scaffolding of construction or manufacture to be made with special sliding mold.</p> <p>7) The material from the sculpture belongs to the contractor.</p>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
Y.21.050/C12	Mold Scaffolding from steel pipe (4.01 – 6.00 m)	m <sup>3</sup>	555.00
<b>Description/ Specifications</b>	<p>Technical description: Construction and industrial manufacture of steel scaffolding, which is subject to the standard and approved project when it is required to be carried out by the standard and approved project, installation and dismantling of the scaffolding by taking necessary safety precautions, all kinds of materials and casualties, loading on construction site, horizontal and vertical transportation, , Vehicle and equipment expenses, contractor general expenses and profit, 1 m3 price:</p> <p>MEASURE: 1) The gap between the face of the mold and the industrial production falling within the scope of this measure and the ground to which the scaffold is subjected is calculated. If the</p>		



	<p>ceiling is inclined, the moderate altitude is the basis. 2) When applied to these exposed tunnels or galleries, the gap between the bottom surface of the gallery or tunnel arch and the floor where the screed is applied is calculated. 3) This pose is applied in water depot construction scaffoldings falling within the scope of this measure. In this case, the gap between the concrete water tank ceiling and the ground to which the scaffold is attached is calculated. 4) The scaffold width required for frames, beams and columns not to be built together with the floor is determined.</p> <p><b>NOTE:</b></p> <p>1) The volume of steel pipes and timber used in scaffolding and casting, and the volume of construction elements (gusseted, beams, columns, curtains, water reservoirs and similar construction elements ..) in the space shall not be deducted from the scaffold cavity volume.</p> <p>2) Length and other tunnel hikes for tunnels and galleries are also applied to these poses in a certain way.</p> <p>3) In the buildings, triangular pier hollow spaces carrying concrete masonry, balconies, concrete, concrete retaining walls, curtains and similar molds are calculated. The triangular horizontal size cannot be more than half of the mold height.</p> <p>4) Concrete wall with a height of less than one meter. Inverted beam width is less than 0,50 m. Portafo and fringes are not provided with scaffolding for door window lento as with an opening of 1.50 m.</p> <p>5) Since the mold scaffolding will be installed for the reinforced concrete scaffoldings, concrete scaffolding and concrete screed which remain in the building, independent columns and similar productions are not allowed with mold scaffolding.</p> <p>6) This price shall not be applied for construction scaffolding of construction or manufacture to be made with special sliding mold.</p> <p>7) The material from the sculpture belongs to the contractor.</p>
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
Y.21.050/C13	Mold Scaffolding from steel pipe (6.01 – 8.00 m)	m <sup>3</sup>	625.00
<b>Description/ Specifications</b>	<p>Technical description: Construction and industrial manufacture of steel scaffolding, which is subject to the standard and approved project when it is required to be carried out in compliance with the standard and approved project, to install and dismantle the scaffolding by taking necessary safety precautions, all kinds of materials and casualties, loading on construction site, horizontal and vertical transportation, , Vehicle and equipment expenses, contractor general expenses and profit, 1 m3 price:</p> <p>MEASURE: 1) The gap between the face of the mold and the industrial production falling within the scope of this measure and the ground to which the scaffold is subjected is calculated. If the ceiling is inclined, the moderate altitude is the basis. 2) When applied to these exposed tunnels or galleries, the gap between the bottom surface of the gallery or tunnel arch and the floor where the screed is applied is calculated. 3) This pose is applied in water depot construction scaffoldings falling within the scope of this measure. In this case, the gap between the concrete water tank ceiling and the ground to which the scaffold is attached is calculated. 4) The scaffold width required for frames, beams and columns not to be built together with the floor is determined.</p> <p><b>NOTE:</b></p> <p>1) The volume of steel pipes and timber used in scaffolding and casting, and the volume of construction elements (gusseted, beams, columns, curtains, water reservoirs and similar construction elements ...) in the space shall not be deducted from the scaffold cavity volume.</p> <p>2) Length and other tunnel hikes for tunnels and galleries are also applied to these poses in a certain way.</p> <p>3) In the buildings, triangular pier hollow spaces carrying concrete masonry, balconies, concrete,</p>		

	<p>concrete retaining walls, curtains and similar molds are calculated. The triangular horizontal size can not be more than half of the mold height.</p> <p>4) Concrete wall with a height of less than one meter. Inverted beam width is less than 0,50 m. Portafo and fringes are not provided with scaffolding for door window lento as with an opening of 1.50 m.</p> <p>5) Since the mold scaffolding will be installed for the reinforced concrete scaffoldings, concrete scaffolding and concrete screed which remain in the building, independent columns and similar productions are not allowed with mold scaffolding.</p> <p>6) This price shall not be applied for construction scaffolding of construction or manufacture to be made with special sliding mold. 7) The material from the sculpture belongs to the contractor.</p>
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
<b>Y.23.176</b>	<b>Making and replacing various iron works from iron band,hollow section and steel profile</b>	<b>kg</b>	<b>26,507.65</b>
<b>Description/ Specifications</b>	<p>Technical description: Iron rivets, bolts, welding and all kinds of materials for the construction of all kinds of stairs made of various steel bars, lathes and profile bars, balconies for bridge railing, window and garden railings, stairs made for roofing, septic tank and similar places, 1 kg price (excluding paint price), including, but not limited to, the following: loss and damage, workplace loading, horizontal and vertical handling, unloading, labor, general contractor expenses and profits</p> <p>MEASURE: It is weighed together with the production and, if necessary, the fixing material, before being painted and assembled. NOTE: However, administrations may ascertain the weight of the project relative to the weights of all profiles and nodal points on the scale of the project, if it is deemed necessary. As a result of this weighing; 7% weight surcharges will be paid in comparison with rulings, 7% dense weight will not be taken into consideration. If the weight of this weighing is less than the weight of the weighing, the weighing shall be based on acceptance of the manufacture made.</p>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>Y.25.002/01</b>	<b>Two layers of coating on metal surfaces against corrosion</b>	<b>m<sup>2</sup></b>	<b>675.00</b>
<b>Description/ Specifications</b>	<p>Technical Description: 1 m<sup>2</sup> price of: cleaning metal works surfaces with sandpaper and wire brush, anti-rust coating of 0,100 kg for 1st layer and 0,100 kg for 2nd layer (each layer shall be of different colors), including any material and labor required for such works, contractor profit and overheads.</p> <p>MEASUREMENT:</p> <p>a) For furniture, the coated surfaces shall be measured.</p> <p>b) For doors and compartments;</p> <p>1) For Telaro type window frames; two side shall be measure from plaster to plaster.</p> <p>2) For window frames (without jamb); frame fields shall be added to the two sides from case to case, vertically</p> <p>3) For window frames jamb, the casing shall be added to two sides measurement from jamb to jamb</p> <p>4) For all measurements indent, outgrowth and window gaps shall not be added to the measuring If there are laths at the window edge, measurement shall start from there.</p> <p>c) In window walls and windows;</p>		

	<p>1) In window walls and windows with jamb; vertical field from jam to jam shall be measured whereas for windows without jamb the vertical field from plaster to plaster shall be measured. One surface shall be calculated, but two surfaces shall be coated. Glass gaps shall not be deducted, if sill, casing and edges are available they will be measured separately and added to the field.</p> <p>2) For double windows the measurement shall be the same, the wooden case between two windows shall be measured separately and added to the field. Two sides shall be coated of both windows but one side shall be calculated. Glass gap shall not be deducted.</p> <p>d) For fences and rods, the projection field of one side vertically shall be measured. Gaps shall not be deducted.</p> <p>e) The coated surfaces of columns, roof trusses, beams, area ways and similar metal works shall be measured.</p>
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
Y.26.017/032	<b>Covering with 8 cm height normal cement steam cured concrete paving stone (every size, color and pattern)</b>	m <sup>2</sup>	225.00
<b>Description/ Specifications</b>	<p>Technical Description: Disassembly: Is the TL/m2 price including disassembly, disposal, transport, labor, contractor profit and any overheads.</p> <p>Measurement: The disassembled area shall be calculated by measuring based on m2.</p> <p>b) PARQUET, concrete, ordinary pavement and blockage disassembly. Is the TL/m2 price including removal, sorting and stapling of the parquets, transport, labor, contractor profit and overheads.</p> <p>Measurement: The disassembled stones and plates shall be calculated by measuring based on m2.</p> <p>Production: The TL/m2 price for arranging the ground to be floored with paving stone, layering of sand of 10 cm thickness, flooring of parquet stones of 16 cm height and other dimensions of 12x22 cm on the sand layer at required slope, sand-filling of spaces between the stones and sweeping.</p> <p>Measurement: The disassembled area shall be calculated by measuring based on m2.</p> <p>b) Asphalt paving: The TL/m2 price for asphalt concrete wearing layer of 5 cm compressed thickness on asphalt concrete binder layer of 7 cm compressed thickness over bitumen hot base asphalt concrete layer together with crushed and screened quarry stones with 14 cm compressed thickness.</p> <p>Measurement: The area of asphalt paving shall be calculated by m2 measurement.</p> <p>c) Concrete slab: The TL/m2 price for arranging the layer for concrete slab, layering of sand of 10 cm thickness, applying 250 dose concrete of 20 cm thickness over the sand layer with slope.</p> <p>Measurement: The concrete applied field shall be calculated by m2 measurement.</p> <p>d) Macadam construction with quarry stone: TL/m2 price for paving of macadamization of 30 cm thickness on the prepared ground.</p> <p>Measurement: The floored field shall be calculated by m2 measurement.</p>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
17.141/İB	Concrete border construction	m	745.00
<b>Description/ Specifications</b>	Technical Description: 1 meter price of: border with 18x30 cm dimensions and with 3/5 cm slope on front upper side and made of 350 dose concrete depending on the project, including any material and wastage required for layering with 400 dose mortar over base layer made of 200 dose lean concrete, labor, transport to workplace, loading and unloading costs, contractor profit and overheads (excluding transport to workplace, loading and unloading, stapling and figuration costs of cement, sand and gravel).		
<b>Book</b>	İller Bank		

Item no:	Item	Unit	Quantity
KGM/37.556/K	Grass seed sowing	da	2.00
<b>Description/ Specifications</b>	<p>Technical Description: Grass seed sowing according to the principles and terms stated in the related sections of the KTŞ.</p> <p>Costs included in the unit price:</p> <p>Supply of any tool, equipment and grass seed, raking by hand the soil for grass field, preparation of grass seed mixture at rates required by the building inspector, sowing the seeds at least 50 kg per decare, screening of layering material, preparation by adding turf, loading and unloading, flooring at 1-1,5 cm thickness and supporting, water supply to workplace and applying sap to at least 15 cm depth, any labor, material, machine, tool and equipment, contractor profit and overheads, excluding the works and material stated under the heading "costs not included in the unit price".</p> <p>Costs not included in the unit price:</p> <p>Cost and transport to workplace of topsoil and dung added to the layering material</p> <p>Measurement:</p> <p>The field sowed with grass seed is measured in decare.</p> <p>Payment:</p> <p>To be made over the decare unit price in the Unit Price Bid Chart - Poz KGM/37.556/K' "Sowing of Grass Seed (perennial ryegrass)".</p>		
<b>Book</b>	Republic of Turkey General Directorate of Highway		

Item no:	Item	Unit	Quantity
37.092/2	Supply of topsoil. (including transport)	m <sup>3</sup>	300.00
<b>Description/ Specifications</b>	For nursery, park and reforestation fields, the plant soil for forests development, forests, shrubs etc. Loading and unloading of all kinds of workmanship, materials and casualty necessary for the figure, transportation of the meters, transportation of the meters, discharging of the equipment, equipment and utilities; Including the cost of the contractor's profits and overheads, the price of cubic meter per square meter of plant material. MEASUREMENT: 90% of the value found in the cubic meter of plant soil is calculated. M 10 000 m. (07.006 / 1-22)		
<b>Book</b>	Republic of Turkey General Directorate of State Hydraulic Works		

Item no:	Item	Unit	Quantity
37.092/3	Layering of topsoil - 10 to 15 cm thickness	m <sup>3</sup>	300.00
<b>Description/ Specifications</b>	All kinds of workmanship, materials and casualties necessary for planting, 10 to 15 cm thick soil taken from fig and planting, nursery, park and nursery fields to be sorted out from foreign materials, suitable for seed growing, machinery, tools and equipment, unloading; Contractor profits and general expenses, including the provision of herbal soil, except for the field of herbal coating on the field 10 - 15 cm. The thickness of the vegetable soil spreading per cubic meter price. MEASUREMENTS: Puppies no. Measured in cubic meters according to 37.092 / 2. Thickness control is performed after pouring.		
<b>Book</b>	Republic of Turkey General Directorate of State Hydraulic Works		

Item no:	Item	Unit	Quantity
MSB.521/B2	Roof coating with painted trapezoidal section sheet	m <sup>2</sup>	612.50
<b>Description/ Specifications</b>	Technical Description: Price of 1m2 painted trapezoidal sheet roof coating: overlapping of 0.50mm galvanized and painted trapezoidal sheet, painted with fabricated roll paint system (outwards surface min. 5 micron, inwards surface min. 7 micron epoxy coating and polyester paint coat of min. 20 micron), fixing to suspensions, placement of accessories (goin, eaves, wall, edge coting etc.), silicon application to lag washer holes, loading, horizontal and vertical transport, unloading, assembly at workplace, material, transport, labor, assembly, wastage, tools and equipment, contractor profit and overheads. Measurement: The coated roof surfaces shall be calculated in field.		
<b>Book</b>	Republic of Turkey Ministry of National Defense		

Item no:	Item	Unit	Quantity
N-040	Transport price to 15000 m distance	ton	5.29
<b>Description/ Specifications</b>	Technical Description: Note: The transport prices stated in Table 1 are calculated from the formula in the İller Bankası (İller Bank) analysis book and shall be applied for galvanized sheet metal (excluding loading, unloading, stapling and 25% contractor profit and overheads)		
<b>Book</b>	İller Bank		

Item no:	Item	Unit	Quantity
23.260/İB-1	Construction of reinforced concrete gauze with post of 2.63 m height and protective fences	m	835.18
<b>Description/ Specifications</b>	Technical Description: 1 meter price of: construction of reinforced concrete gauze with 2.63 m height and protective fences, preparation of reinforced concrete twin pole, gauze with 3 mm thickness and 5x5 cm interocular distance, guy wire and galvanized barb wire at workplace in accordance with the approved typical project, placing of reinforced concrete poles with distance of 2.50 m supported with 1 buttress at corners and 2 buttresses at each 30 meters along the fence, placing of fence poles into 250 dose concrete of 40 x 40 x 50 cm and buttresses into 250 dose concrete of 60 x 60 x 50 cm, installation of three lines of guy wire of 3 mm thickness along the top, middle and bottom of the galvanized gauze for a proper appearance, installation of 2 lines of barb wire above the upper guy wire, assembly of a door dimension and type as specified in the typical project for access to the protected field, costs for applying padlock, contractor profit and overheads included (transport, loading, unloading, stapling of iron, sand, gravel and cement only and padlock cost excluded).		
<b>Book</b>	İller Bank		

Item no:	Item	Unit	Quantity
Y.18.460/24	Ø 200 mm nominal diameter, PVC-based corrugated drainage pipe and its placement	m	428.00
<b>Description/ Specifications</b>	<p>Technical Description: Ø 200 mm nominal diameter PVC-based corrugated drainage pipes are prepared for drainage and laying down, all kinds of materials and wastes, workmanship and equipment expenses, workplace loading, horizontal and vertical transportation, unloading, general contractor and profit Price of 1 m including:</p> <p>MEASURE: The area laid on the drainage pipe is calculated as m.</p> <p>NOTE: The excavation of the drainage pipe to be laid to the drainage base, the material or concrete layer to be laid on the base of the drainage, the filling and compression of the drainage with the appropriate size of material on the side and top is paid from its own pose.</p>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		


Item no:	Item	Unit	Quantity
Y.18.461/041	Laying of geotextile	m <sup>2</sup>	4,850.00
<b>Description/ Specifications</b>	<p>In order to protect the insulation of the basement or terraces in accordance with the approved projects and details, it is necessary to lay the geotextile fleece on top of each other with a 10 cm overlay, loading, horizontal and vertical transportation, unloading, all kinds of materials and wastes, and the price of 1 m<sup>2</sup> including profit:</p> <p>MEASUREMENT: The insulation surface is calculated in m<sup>2</sup>.</p>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
İ-ÖBF 1	Site Signboard with foot pedestal	piece	1
<b>Description/ Specifications</b>	<p>Technical Description: UNDP standard identification signboards and montage, including all material painting and writing works, to be determined by the characteristics and measurements. A signboard of 2.5m X 3m in dimension and Project fund, project name, stakeholder, budget, schedule and contractor's name will be shown on.</p>		
<b>Book</b>	Special		

Item no:	Item	Unit	Quantity
İ-ÖBF 2	Supply and assembly of 101,65 m <sup>2</sup> Prefabricated Building	piece	1
<b>Description/ Specifications</b>	As detailed in drawings.		
<b>Book</b>	Special		

Item no:	Item	Unit	Quantity
İ-ÖBF 3	Traffic signs and boards	piece	5
<b>Description/ Specifications</b>	<p>Technical Description: Accordance with the regulations on traffic signs way traffic sign boards will be defined. Drivers and application sheets and strips to protect pedestrians, interior signs 12 cm wide cut white striped drawing, external signs 12 cm wide white striped ribbon for continuously drawing and stop drawing lines is 30 cm white line Traffic sign board including all kinds of materials and workmanship for the adhesion of reflex materials by painting, writing and</p>		



	<p>marking with all the standard traffic sign boards and galvanized profiles suitable for the highway specifications and mounting in place.</p> <p>The implementation of traffic signs and plates for the purpose of protecting drivers and pedestrians:</p> <p>For inner signalization, white dashed lines with width of 12 cm.</p> <p>For outer signalization, white continuous lines with width of 12 cm.</p> <p>For STOPPING LINES, white line with width of 30 cm.</p> <p>Following signs will be used as minimum:</p> <div style="text-align: center;">  </div>
<b>Book</b>	Special

Item no:	Item	Unit	Quantity
İ-ÖBF 4	False Acacia, Juniper, Acorn Oak, Aleppo Pine trees and planting supplies	piece	327
Description/ Specifications	Tree planting will be cultivation is the soil, anchors, hand with the opening of the pit in soft soil in tree seedlings on the characteristics of the appropriate diameter and depth; hard and gravelly soil, the trees' characteristics to the appropriate diameter and depth of the pit open hand or by machine seedlings and according to the diameter and depth to the characteristics of tree planting saplings made to the appropriate holes.		
	Minimum specifications for the trees;		
	Latin Name	Name	Height
	Robinia pseudoacacia	Yalancı akasya/False acacia	120-150 cm
	Juniperus oxycedrus	Katran ardıcı/prickly juniper	150-175 cm
	Quercus brantili	Palamut meşesi/acorn oak	30-40 cm
	Pinus halepensis	Halep çamı / Aleppo pine	100-125 cm
Book	Special		

Item no:	Item	Unit	Quantity
<b>12.2190 / 1</b>	<b>Steam cured 500 Dose Precast Manhole base(H=0.6m) with Ø 200 outlet (one out and one inlet)</b>	<b>piece</b>	<b>5.00</b>
<b>Description/ Specifications</b>	<p>Manufactured or purchased, making all kinds of experiments, steam cured manhole prefabricated base elements those of manhole, to be ready on the edge of the excavation pit, chimney excavation pit on the edge of whether leveling the base and improvement made, to be placed in accordance with the lowering of the project the foundation base, all kinds of necessary costs , and casualties, loading the workplace, horizontal and vertical transport, unloading, labor, including contractor's general expenses and profits, (steam cured precast manhole entering the manufacturing base element concrete, iron, cement, transportation to the sand and gravel to the</p>		

	<p>construction site storage, installation of this transport, unloading and manufactured by stacking the cost of steam cured manhole construction site as the transmission of the manhole prefabricated base element and installation of this transport, unloading and stacking price, are excluded.) h = 0.60 m. 500 high dose of steam cured manhole base element made of prefabricated manhole form; 1 piece's price:</p> <p>SIZE: According to the project, within the manufacturing registered parcel manholes, manhole prefabricated steam cured, the amount denominated in pieces of the base member.</p>
<b>Book</b>	Iller Bank

Item no:	Item	Unit	Quantity
<b>12.2190 / 2</b>	<b>Steam Cured 500 Doses Precast Manhole Riser (H = 0.50 M., Joints with 600 Dose Mortar)</b>	<b>piece</b>	<b>5.00</b>
<b>Description/ Specifications</b>	<p>Made within the current conditions and principles or purchased, all kinds of experiments are performed, has been accepted by the bank, steam curing of the manhole prefabricated concrete cover, to be ready on the edge of the manhole excavation pit, manhole taken from the edge of the excavation pit, according to the project, to be placed on the manhole, all kinds of necessary expenses and casualties, loading the workplace, horizontal and vertical transport, unloading, labor, including contractor's general expenses and profits, (Manhole entering the manufacture of precast concrete lid, iron, cement, transportation to the sand and gravel to the construction site storage, installation of this transport, unloading and manufactured by stacking the cost of steam cured manhole construction site as the transmission of the precast concrete lid and installation of this transport, unloading and stacking price, are excluded.) 500 dose steam cured manhole made of prefabricated body elements constituting the manhole; 1 pieces price:</p> <p>SIZE: which is registered under the Project, within the manufacturing manhole, steam-cured manhole prefabricated body element has, in terms of the pieces' amount.</p>		
<b>Book</b>	Iller Bank		

Item no:	Item	Unit	Quantity
<b>12.2190 / 3</b>	<b>Steam Cured 500 Dz. Precast Manhole Riser (H = 0.25 M. Joints with 600 Dose Mortar)</b>	<b>piece</b>	<b>3.00</b>
<b>Description/ Specifications</b>	<p>Made within the current conditions and principles or purchased, all kinds of experiments are performed, steam curing of the manhole prefabricated concrete cover, to be ready on the edge of the chimney excavation pit, chimney taken from the edge of the excavation pit, according to the project, to be placed on the manhole, all kinds of necessary expenses and casualties, loading the workplace, horizontal and vertical transport, unloading, labor, including contractor's general expenses and profits, (Parcel chimney entering the manufacture of precast concrete lid, iron, cement, transportation to the sand and gravel to the construction site storage, installation of this transport, unloading and manufactured by stacking the cost of steam cured manhole construction site as the transmission of the precast concrete lid and installation of this transport, unloading and stacking price, are excluded.) 500 dose steam cured manhole made of prefabricated body elements constituting the chimney; 1 pieces price:</p> <p>SIZE: which is registered under the Project, within the manufacturing manhole, steam-cured manhole prefabricated body element has, in terms of the pieces' amount.</p>		
<b>Book</b>	Iller Bank		

Item no:	Item	Unit	Quantity
12.2190 / 4	Steam Cured, Precast Manhole Adjustment Ring With 500 Dose,	m	0.37
<b>Description/ Specifications</b>	<p>Made within the current conditions and principles or purchased, all kinds of experiments are performed, has been accepted by the bank, steam curing of the manhole prefabricated body height adjust elements, to be ready on the edge of the chimney excavation pit, chimney taken from the edge of excavation, according to the project, necessary for the placement on the body member, all expenses, and casualties, loading the workplace, horizontal and vertical transport, unloading, labor, including contractor's general expenses and profits, (steam cured within the manufacturing manhole prefabricated housing height adjustment element, cement, transportation to the sand and gravel to the construction site storage, installation of this transport, unloading and manufactured by stacking the cost of steam cured manhole prefabricated housing height adjustment element has; construction as the transmission and installation of transport, unloading and stacking price, are excluded.) 500 dose steam cured manhole made of prefabricated chimney constituting actuator body height; 1 meter price:</p> <p>SIZE: which is registered under the Project, within the manufacturing manhole, the manhole is the amount of steam cured prefabricated housing element has height adjustment meters.</p>		
<b>Book</b>	iller Bank		

Item no:	Item	Unit	Quantity
12.2190/5	The Placing of precast Concrete (350 dose) Cover and Frame	piece	5.00
<b>Description/ Specifications</b>	<p>Made within the current conditions and principles or purchased, all kinds of experiments are performed, has been accepted by the bank, steam curing of the manhole prefabricated concrete cover, to be ready on the edge of the chimney excavation pit, chimney taken from the edge of the excavation pit, according to the project, to be placed on the manhole, all kinds of necessary expenses and casualties, loading the workplace, horizontal and vertical transport, unloading, labor, including contractor's general expenses and profits, (Parcel chimney entering the manufacture of precast concrete lid, iron, cement, transportation to the sand and gravel to the construction site storage, installation of this transport, unloading and manufactured by stacking the cost of steam cured manhole construction site as the transmission of the precast concrete lid and installation of this transport, unloading and stacking price, are excluded.) BS 18 concrete (350 doses) been manufactured with, the manhole will be placed on the precast concrete manhole cover; 1 piece's price:</p> <p>SIZE: It is manufactured according to the standards and technical specifications related to the project, and the manhole cover was placed over the precast concrete elements, in terms of the pieces' amount.</p>		
<b>Book</b>	iller Bank		

#### Mechanical Works

Item no:	Item	Unit	Quantity
089-101	Faucet (short) Class 1, 1/2 "	piece	2
<b>Description/ Specifications</b>	Supply and installation in the workplace instead of having a quality certificate fittings.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
097-203	Location filter (rigid plastic grille), 10x10 cm	piece	3
<b>Description/ Specifications</b>	made of cast iron, self smell la fermette is provided in the workplace and cleaning grate floor drain plug, and instead of assembly. h = 13.5 cm. Ø 50 mm.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
103-108	Cold water meter (diameter 80 mm, flange)	piece	1
<b>Description/ Specifications</b>	Measuring Instruments Directive (2004/22 / EC) shall have the CE mark required.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
107-1101	Only vertical National Frequency Converter Pump Booster (Output 0-5 m <sup>3</sup> / h, pressure: 20-40 MSS)	piece	1
<b>Description/ Specifications</b>	Mounted on a metal frame, the necessary check valves, valve, connected by suction and discharge manifolds using fasteners, with multi-stage pump 1 to 6 selected so as to perform the automatic operation of the pump, an integrated frequency converter unit within formed by the electrical control panel; Press on the analogue pressure collector		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
15.D.62	Pipe trench excavation in all kind of loose rock layer	m <sup>3</sup>	44.8
<b>Description/ Specifications</b>	Item No. 15.D.61 basis until the price per cubic meters for every kind of luxury ground pipe breakage opening hole with all kinds of tools and machines within. MEASURE: Of course, the horizontal plane level with the ground surface and the lower inner tube remaining net volume between the two vertical planes 20 cm away from the outside pipe is excavated. NOTE: a- This rate is applied to the pipeline network of irrigation pipes. b - Making more extensive excavation due to the structure of the excavation machinery, precisely due to the formation of ground structure slope excavation and no change is made to measure for any other reason than the case of excavation and will not be paid or other consideration. c - hike the unit price of inefficiency in the implementation of excavation and water hike is not paid.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
204-3102	Pn 20 polypropylene clean water pipe 1/2 "20 / 3.4 mm polypropylene clean water pipes	m	15
<b>Description/ Specifications</b>	According to DIN 8077- 8078, polypropylene (PPR-C) Type; 3 products and has been documented that there may be reliably used as .boru drinking water from the Health Ministry to ensure the establishment of the pipes, cut according to the project, physio term welding to the ends of pipe with fittings at 260 ° C to tightening supply. (Including all materials and workmanship for a resource.) Mounting material costs are also payable.		

<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization
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Item no:	Item	Unit	Quantity
204-3103	<b>Pn 20 polypropylene clean water pipe 3/4 "25 / 4.2 mm polypropylene clean water pipes</b>	m	12
<b>Description/ Specifications</b>	According to DIN 8077- 8078, polypropylene (PPR-C) Type; 3 products and has been documented that there may be reliably used as .boru drinking water from the Health Ministry to ensure the establishment of the pipes, cut according to the project, physio term welding to the ends of pipe with fittings at 260 ° C to tightening supply. (Including all materials and workmanship for a resource.) Mounting material costs are also payable.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
204-402	<b>Rigid PVC plastic drain (pass muffle, diameter: 75-70 mm, thickness 3 mm)</b>	m	7
<b>Description/ Specifications</b>	TS-275-1 in accordance with EN 1329-1, instead of the supply and installation of a hard pass to muffle the establishment of PVC plastic sewage pipe		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
204-403	<b>Rigid PVC plastic drain (pass muffle, diameter: 100-110 mm, wall thickness 3 mm)</b>	m	7
<b>Description/ Specifications</b>	TS-275-1 in accordance with EN 1329-1, instead of the supply and installation of a hard pass to muffle the establishment of PVC plastic sewage pipe		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
204-814/B	<b>PE100 class SDR 17 series PN 10 polyethylene tube (outer diameter: 63 mm, 10 bar) (outside of the building ground, 10%)</b>	m	85.26
<b>Description/ Specifications</b>	PE100 class SDR 17 series PN 10 polyethylene pipes		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
210-624	<b>Ball valve, brass presses, Teflon gasket (diameter: 20 mm)</b>	piece	1
<b>Description/ Specifications</b>	97/23 / EC Pressure Equipment suitable for regulation of water, air and steam systems in the element cutter brass, cast carbon steel or stainless steel, threaded or flanged, which is controlled by a sphere transition, manually opening and closing the supply of the establishment of a regular ball valves Instead assembly. Note: When using the TS 3148 Sheet 2 short dimensions specified size 10 unit price will be paid 35% missing.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
210-625	<b>Ball valve, brass presses, Teflon gasket (diameter: 25 mm)</b>	piece	1
<b>Description/</b>	97/23 / EC Pressure Equipment suitable for regulation of water, air and steam systems in the		

<b>Specifications</b>	element cutter brass, cast carbon steel or stainless steel, threaded or flanged, which is controlled by a sphere transition, manually opening and closing the supply of the establishment of a regular ball valves Instead assembly. Note: When using the TS 3148 Sheet 2 short dimensions specified size I0 unit price will be paid 35% missing.
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
210-626	<b>Ball valve, brass presses, Teflon gasket (diameter: 32 mm)</b>	piece	1
<b>Description/ Specifications</b>	97/23 / EC Pressure Equipment suitable for regulation of water, air and steam systems in the element cutter brass, cast carbon steel or stainless steel, threaded or flanged, which is controlled by a sphere transition, manually opening and closing the supply of the establishment of a regular ball valves Instead assembly. Note: When using the TS 3148 Sheet 2 short dimensions specified size I0 unit price will be paid 35% missing.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
210-729	<b>Ball valve, stainless steel body steel ball screw (50 mm, 1 1/2 ")</b>	piece	5
<b>Description/ Specifications</b>	97/23 / EC Pressure Equipment suitable for regulation of water, air and steam systems in the element cutter brass, cast carbon steel or stainless steel, threaded or flanged, which is controlled by a sphere transition, manually opening and closing the supply of the establishment of a regular ball valves Instead assembly. Note: When using the TS 3148 Sheet 2 short dimensions specified size I0 unit price will be paid 35% missing.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
221-207	<b>Strainer, cast iron, flange (diameter: 50 mm)</b>	piece	3
<b>Description/ Specifications</b>	liquid, steam and will be mounted on the gas equipment, fluid pressure and body, subject to the temperature of brass, bronze, cast iron or steel, interior cleaning brass or stainless steel, which can be removed and cleaned filter easily, to be approved by the administration of catalogs flanged or screw the strainer to be selected supply and installation rather than in the workplace. Note: The filter sensitivity; DN 20 up to 500 mm (0.5 mm) and above DN 50 up to 700 .mu.M (0.7 mm) and above DN 150 up to 1200 .mu.M (1.2 mm) and it will be up.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		



Item no:	Item	Unit	Quantity
227-301	Non-return valve, cast iron flanges (diameter: 50 mm)	piece	1
Description/ Specifications	to be used in hot or cold water systems, EN 1074-3 compliance certificate, which is screwed on a small scale, brass or bronze, larger diameter ones screws, those massive than brass or bronze flanged and cast iron, hinged or clapper or ball should sit tight supply of non-return valve in the workplace can operate in horizontal or vertical position, and instead of assembly.		
Book	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
M ÖBF 1	Floor Scales Over 60 Tons	piece	1
Description/ Specifications	<p><b>WeigbridgeTechnicalSpecification</b></p> <ul style="list-style-type: none"> <li>• The weigher manufacturer shall be certified with an ISO 9001:2008 quality assurancesystem.</li> <li>• The weigher manufacturer shall be certified with 90384 AT certificate, related to the weighingdevices.</li> <li>• The references related to previously delivered weighing machines shall be attachedto the bids.</li> <li>• Catalogs, brochures, technical drawings and related documents shall be attachedto the bids.</li> <li>• Transport, assembly and start-up of the materials shall be conducted by thecompany.</li> <li>• The first control and sealing procedures of the weighing machine shall be made by the company in accordance with the 90384 ATdirectives.</li> <li>• A "Calibration Certificate" evidencing that the weighing machine is in compliance with European Standards and traceable shall bepresented.</li> <li>• The company shall provide a free-of-charge training for the operation of the weighingmachine.</li> <li>• The construction works related to the weighing machine shall be conducted by the contractor in accordance with the project to be provided by the weighing machine manufacturer.</li> <li>• The transporting vehicle required during the assembly of the weighing machine shall be provided by thecontractor.</li> <li>• The warranty period shall be two yearsminimum.</li> </ul> <p><b>Material to be used and TechnicalCharacteristics</b></p> <p>Following materials shall be used in thesystem:</p> <ul style="list-style-type: none"> <li>• 1 piece of 4x16 cm foreground steelplatform</li> <li>• 8 pieces of 20 tonsLoad Cells</li> <li>• Assembly accessories for 8 pieces ofLoad Cells-</li> <li>• 1 piece of junctionbox</li> <li>• 1 piece of weighingterminal</li> <li>• 1 piece ofmonitor</li> <li>• 1 piece ofkeyboard</li> <li>• 1 piece ofprinter</li> </ul> <p><b>4x16 cm Foreground SteelPlatform</b></p>		

- The main beams shall be located at the longitude side edges of the platform. The beams shall be placed 25 cm above the platform level. The weighing machine platform shall be aboveground and the platform height shall not exceed 36 cm from the ground.
- Gas metal arc welding shall be applied in the welded connection points of the weighing machine.
- All surfaces of the platform shall be coated with two layers of paint base and one layer of synthetic paint.
- The weighing machine shall be designed in such way, being capable of operating under overload of 30% over the nominal capacity.
- Weighing shall be made without any need for a side load-feeding system.

#### **Load Cells**

- The weigher shall be equipped with 8 units of load cells with 20 tons capacity.
- The load cells shall be of 1/3000 precision, class C3 and OIML certified.
- Protection class shall be IP 68, and shall be water-proof according to DIN 40050 norms.
- Output shall be 2 mV/V.
- Operating temperature shall be -40 to +60 C. Hysteresis and non-linearity fault shall not be higher than 0,03 %.
- Calibrated heat area shall be -10, +40 C.
- The load cells shall be capable of weighing at the same precision even at 150% of the allowed value.
- The load cells shall operate without any defects even when a load of 200% of the nominal value is applied.
- Rubber based assembly accessories shall be used at the bottom of the load cells against sudden moves of the trucks towards the weighing machine and against irregular loads to the weighing machine at entry and exit.
- The CALIBRATION CERTIFICATES which shall include the failure graphics showing that the failure limits of all test results are in compliance with OIML 3000d shall be presented by the manufacturer for each load cell.

#### **Automation System**

System shall comprise the followings (as minimum):

- Unmanned weighbridge system software
- Terminal for proximity card reader
- LED/LCD display
- Thermal printer
- Minimum 3 kW online UPS
- Minimum 100 proximity cards
- Minimum 2 traffic lights

System shall have following features;

- System have the capability to upload the first weighing information and vehicle information to proximity cards.

	<ul style="list-style-type: none"> <li>• Driver can operate the weighing system and get the weigh ticket without getting out of the truck.</li> <li>• For vehicles without proximity card, system can be operated manually.</li> <li>• The system shall be accessible for reports and operation from other PCs in the network.</li> <li>• For a defined duration, the system shall prevent repetitive weighing of vehicles.</li> <li>• Vehicles with fixed tare can be identifiable to the system.</li> <li>• System software shall be capable of operating two terminals simultaneously.</li> <li>• System shall log user identity, date and time for every transaction.</li> <li>• More than one user account can be created and authorized for the system.</li> <li>• Capability to reports in Excel and/or Word format.</li> <li>• Software shall be compatible for different printer types. (i.e. dot matrix, laser, barcode)</li> </ul>
<b>Book</b>	Special

Item no:	Item	Unit	Quantity
<b>204.811</b>	<b>Polyethylene pipes, PE100 PN CLASS (10 atm) Ø mm: 32 (Exterior Building Ground)</b>	<b>m</b>	<b>10</b>
<b>Description/ Specifications</b>	EN 12201-2: 2011 A1'Y the supply of polyethylene pipe and fitting Excluded appropriate work Ø mm Diameter Pressure Atmosphere in the land borders of the units will be installed for use in business.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>204.812</b>	<b>Polyethylene pipes, PE100 PN CLASS (10 atm) Ø mm: 40 (Exterior Building Ground)</b>	<b>m</b>	<b>2</b>
<b>Description/ Specifications</b>	EN 12201-2: 2011 A1'Y the supply of polyethylene pipe and fitting Excluded appropriate work Ø mm Diameter Pressure Atmosphere in the land borders of the units will be installed for use in business.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>204.813</b>	<b>Polyethylene pipes, PE100 PN CLASS (10 atm) Ø mm: 50 (Exterior Building Ground)</b>	<b>m</b>	<b>125</b>
<b>Description/ Specifications</b>	EN 12201-2: 2011 A1'Y the supply of polyethylene pipe and fitting Excluded appropriate work Ø mm Diameter Pressure Atmosphere in the land borders of the units will be installed for use in business.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
105-603	<b>Prismatical Modular Stainless Steel water tank 3750 Lt</b>	piece	1
<b>Description/ Specifications</b>	<p>Technical Description: Supply and installation to the designated location and connection to the piping system of the modular water tank which is wholly made of AISI 304 stainless steel; all internal and external materials, strain bars, bolts, legs, manhole, air vent, connection openings made of stainless materials, on-board fixtures made of stainless or brass materials; resistance calculations and application drawings approved by the administration; all parts produced in the factory by cold moulding, bending or twisting method; no welding required in its manufacture or installation, can be assembled using silicone or epidem rubber seals; with a PVC or polyethylene at the bottom of the tank to isolate the flooring material; certified to Turkish Standards.</p> <p>NOTE:</p> <ul style="list-style-type: none"> <li>- The prices include fixtures made of stainless or chrome plated brass material, stainless tank legs level float, in-out globe valves, blow-off globe valve, air vent apparatus, tank surge relief and pipe, level indicator, valves and discharge tap, upper and lower manhole cover, tank ladder.</li> <li>- The prices for intermediate values shall be determined by interpolation.</li> <li>- The table for the sheet metal thicknesses of the tank are provided in the general explanation section for plumbing.</li> </ul>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
12.2201	<b>Ø150 Corrugated Pipe supply and laying Diameter 150 mm (SN 8) PE100 ROOFING OF SHEET SEWER SEWERAGE PIPES</b>	m	25.75
<b>Description/ Specifications</b>	<p>Technical Description: Pr EN 13476-1 'to the provision of suitable manufactured HDPE based corrugated sewer pipes, all kinds of experiments before laying and prepared where the trench side or to be introduced as being made of inspection, lowering into the trench a flat working HDPE corrugated pipe, specifications and related Fitting of the pipe heads to the seals and seals in sealed condition after the inspection of the supplied rubber seals and testing of the supplied rubber seals, fitting of the pipe heads or pipeline to the sealing experience according to the relevant standards to make all kinds of fasteners and miscellaneous parts, materials and casualties is required, try including all labor related costs, tools and equipment expenses, horizontal, vertical transportation, loading, profit contractor with unloading and general expenses, including (Only z, the transportation from the factory to work up the transport tube in the loading, unloading and stacking excluding cost) based HDPE corrugated pipe of laying; 1 meter price</p> <p>12.2201 Ø 150 mm nominal diameter sewer pipe laying of HDPE based corrugated m.</p> <p>Measure: tiled state on the actual pipe length in meters is calculated.</p>		
<b>Book</b>	İller Bank		

Item no:	Item	Unit	Quantity
12.2202	<b>Ø200 Corrugated Pipe supply and laying Diameter 200 mm (SN 8) PE100 ROOFING OF SHEET SEWER SEWERAGE PIPES</b>	m	192.83
<b>Description/ Specifications</b>	<p>Technical Description: Pr EN 13476-1 'to the provision of suitable manufactured HDPE based corrugated sewer pipes, all kinds of experiments before laying and prepared where the trench side or to be introduced as being made of inspection, lowering into the trench a flat working HDPE corrugated pipe, specifications and related Fitting of the pipe heads to the seals and</p>		

	seals in sealed condition after the inspection of the supplied rubber seals and testing of the supplied rubber seals, fitting of the pipe heads or pipeline to the sealing experience according to the relevant standards to make all kinds of fasteners and miscellaneous parts, materials and casualties is required, try including all labor related costs, tools and equipment expenses, horizontal, vertical transportation, loading, profit contractor with unloading and general expenses, including (Only z, the transportation from the factory to work up the transport tube in the loading, unloading and stacking excluding cost) based HDPE corrugated pipe of laying; 1 meter price 12.2202 Ø 200 mm nominal diameter sewer pipe laying of HDPE based corrugated m. Measure: tiled state on the actual pipe length in meters is calculated.
<b>Book</b>	Iller Bank

Item no:	Item	Unit	Quantity
<b>12.2203</b>	<b>Ø300 Corrugated Pipe supply and laying Diameter 300 mm (SN 8) PE100 ROOFING OF SHEET SEWER SEWERAGE PIPES</b>	<b>m</b>	<b>88.39</b>
<b>Description/ Specifications</b>	Technical Description: Pr EN 13476-1 'to the provision of suitable manufactured HDPE based corrugated sewer pipes, all kinds of experiments before laying and prepared where the trench side or to be introduced as being made of inspection, lowering into the trench a flat working HDPE corrugated pipe, specifications and related Fitting of the pipe heads to the seals and seals in sealed condition after the inspection of the supplied rubber seals and testing of the supplied rubber seals, fitting of the pipe heads or pipeline to the sealing experience according to the relevant standards to make all kinds of fasteners and miscellaneous parts, materials and casualties is required, try including all labor related costs, tools and equipment expenses, horizontal, vertical transportation, loading, profit contractor with unloading and general expenses, including (Only z, the transportation from the factory to work up the transport tube in the loading, unloading and stacking excluding cost) based HDPE corrugated pipe of laying; 1 meter price 12.2203 Ø 300 mm nominal diameter sewer pipe laying of HDPE based corrugated m. Measure: tiled state on the actual pipe length in meters is calculated.		
<b>Book</b>	Iller Bank		

Item no:	Item	Unit	Quantity
<b>280-2103</b>	<b>COOLING CAPACITY (NOM): 3 KW. HEATING CAPACITY (NOM): 3.5 KW. Wall unit</b>	<b>piece</b>	<b>3</b>
<b>Description/ Specifications</b>	Indoor unit of AC having 3KW Cooling and 3.5KW heating capacity		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>280.2103-M</b>	<b>MOUNT COOLING CAPACITY (NOM): 3 KW. HEATING CAPACITY (NOM): 3.5 KW. Wall unit</b>	<b>piece</b>	<b>3</b>
<b>Description/ Specifications</b>	Mounting the indoor unit of AC having 3KW Cooling and 3.5KW heating capacity		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
280.2208	<b>Multi VRF outdoor unit: Rated Heating Capacity: 9.0 kW</b>	piece	1
<b>Description/ Specifications</b>	Air cooled condensers, frequency control DC inverter compressor, the outdoor unit or the outdoor unit is one of the group dealt with menstrual fluid and gas lines, including one line on can be connected to the indoor units of different capacity and type of the branch parts.EUR (cooling efficiency coefficient) values of at least 3.2 and a COP of at least 3.4 with the outdoor unit supplies and all kinds of pipes and electrical connections are pressured with nitrogen after the works, including filling the entire system refrigerant gas even though the spot delivery. Nominal cooling capacity and efficiency values Indoor: 27 CDB / 19 CWB Outdoor: 35 CDB / 24 CWB; heating the environment: 20 ° C DB / 15 CWB Outdoor: 7 CDB / 6 CWB temperature in the pipe length and height difference are data from 0 to 7.5 M. V m. -External Units after installation of the mounting N2 (nitrogen) to 25 bar pressure is gradually removed with the gas to be tested for at least 24 hours under this pressure.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
V.1882/1	<b>Wall split air conditioners UNIT 9.000 Btu / h</b>	piece	5
<b>Description/ Specifications</b>	Standard on heat pump with a hermetic compressor (heat-pump) is automatically programmed, wireless remote control, air directing blades with up / down, left / right orientation makes memory against power failure protected, among the first to begin working and the cool-cooling function have delayed work on the compressor protection switch, defrost warning, dehumidification function , cleanable air filter, heating when cold air blowing arrester, sleep function, four-speed indoor fan, overload protection, indoor / outdoor unit frost prevention devices, heating-made air circulation without cooling, automatic function selection feature ,with lights indicating the operation wall mounted wall mounted split the elements to 5 mt of copper pipes and electrical contacts to operate the air conditioner, all kinds of equipment and provision of necessary accessory devices, mounting and delivery work state.		
<b>Book</b>	Republic of Turkey General Directorate of Foundations		

Item no:	Item	Unit	Quantity
V.1882/1-M	<b>Equipment installation wall split air conditioners 9.000 Btu / h</b>	piece	5
<b>Description/ Specifications</b>	Standard on heat pump with a hermetic compressor (heat-pump) is automatically programmed, wireless remote control, air directing blades with up / down, left / right orientation makes memory against power failure protected, among the first to begin working and the cool-cooling function have delayed work on the compressor protection switch, defrost warning, dehumidification function , cleanable air filter, heating when cold air blowing arrester, sleep function, four-speed indoor fan, overload protection, indoor / outdoor unit frost prevention devices, heating-made air circulation without cooling, automatic function selection feature ,with lights indicating the operation wall mounted wall mounted split the elements to 5 mt of copper pipes and electrical contacts to operate the air conditioner, all kinds of equipment and provision of necessary accessory devices, mounting and delivery work state.		
<b>Book</b>	Republic of Turkey General Directorate of Foundations		



Item no:	Item	Unit	Quantity
V.1882/2	Wall split air conditioners DEVICE 12.000 Btu / h	piece	1
<b>Description/ Specifications</b>	Standard on heat pump with a hermetic compressor (heat-pump) is automatically programmed, wireless remote control, air directing blades with up / down, left / right orientation makes memory against power failure protected, among the first to begin working and the cool-cooling function have delayed work on the compressor protection switch, defrost warning, dehumidification function , cleanable air filter, heating when cold air blowing arrester, sleep function, four-speed indoor fan, overload protection, indoor / outdoor unit frost prevention devices, heating-made air circulation without cooling, automatic function selection feature ,with lights indicating the operation wall mounted wall mounted split the elements to 5 mt of copper pipes and electrical contacts to operate the air conditioner, all kinds of equipment and provision of necessary accessory devices, mounting and delivery work state.		
<b>Book</b>	Republic of Turkey General directorate of Foundations		

Item no:	Item	Unit	Quantity
V.1882/2-M	Equipment installation wall split air conditioners 12000 Btu / h	piece	1
<b>Description/ Specifications</b>	Technical description: automatically programmed, wireless remote control, air directing blades with up / down, left / right orientation makes memory against power failure protected, among the first to begin working and the cool-cooling function have delayed work on the compressor protection switch, defrost warning, dehumidification function , cleanable air filter, heating when cold air blowing arrester, sleep function, four-speed indoor fan, overload protection, indoor / outdoor unit frost prevention devices, heating-made air circulation without cooling, automatic function selection feature ,with lights indicating the operation wall mounted wall mounted split the elements to 5 mt of copper pipes and electrical contacts to operate the air conditioner, all kinds of equipment and provision of necessary accessory devices, mounting and delivery work state.		
<b>Book</b>	Republic of Turkey General Directorate of Foundations		

Item no:	Item	Unit	Quantity
281,501	Copper pipe group 1/4 "0.8 mm (13 mm izo) copper piping systems	piece	16.00
<b>Description/ Specifications</b>	EN 12449, according to the mouth of the pipe manufactured from copper pipes will be tested against moisture and dust, with a silver-copper alloy welding process, to prevent oxidation of N2 (nitrogen) under will be made. At least 1 meter away from each carrier clamp 1 will be used in copper pipes. Copper piping is completed and before the system is switched to N2 (nitrogen) will be swept by the gas inside the tube. Copper tube copper piping installation work after the completion of the N2 (nitrogen) to 41.5 bar pressure is gradually removed by the gas shall be tested for at least 24 hours under this pressure. With Variable Refrigerant Flow Multi indoor unit mounts to be used in the air conditioning system installation, following isolated with minimum specified thickness and rubber or elastomeric rubber foam, installation of over wrapping installation, commissioning performing the test.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
'281.501-M	<b>Installation copper tube group 1/4 "0.8 mm (13 mm ize) copper piping systems</b>	piece	16.00
<b>Description/ Specifications</b>	EN 12449, according to the mouth of the pipe manufactured from copper pipes will be tested against moisture and dust, with a silver-copper alloy welding process, to prevent oxidation of N2 (nitrogen) under will be made. At least 1 meter away from each carrier clamp 1 will be used in copper pipes. Copper piping is completed and before the system is switched to N2 (nitrogen) will be swept by the gas inside the tube. Copper tube copper piping installation work after the completion of the N2 (nitrogen) to 41.5 bar pressure is gradually removed by the gas shall be tested for at least 24 hours under this pressure. With Variable Refrigerant Flow Multi indoor unit mounts to be used in the air conditioning system installation, following isolated with minimum specified thickness and rubber or elastomeric rubber foam, installation of over wrapping installation, commissioning performing the test.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
281.503	<b>Copper pipe group 1/2 "0.8 mm (13 mm ize) copper piping systems</b>	piece	16.00
<b>Description/ Specifications</b>	EN 12449, according to the mouth of the pipe manufactured from copper pipes will be tested against moisture and dust, with a silver-copper alloy welding process, to prevent oxidation of N2 (nitrogen) under will be made. At least 1 meter away from each carrier clamp 1 will be used in copper pipes. Copper piping is completed and before the system is switched to N2 (nitrogen) will be swept by the gas inside the tube. Copper tube copper piping installation work after the completion of the N2 (nitrogen) to 41.5 bar pressure is gradually removed by the gas shall be tested for at least 24 hours under this pressure. With Variable Refrigerant Flow Multi indoor unit mounts to be used in the air conditioning system installation, following isolated with minimum specified thickness and rubber or elastomeric rubber foam, installation of over wrapping installation, commissioning performing the test.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
281.503-M	<b>Installation copper tube group 1/2 "0.8 mm (13 mm ize) copper piping systems</b>	piece	16.00
<b>Description/ Specifications</b>	EN 12449, according to the mouth of the pipe manufactured from copper pipes will be tested against moisture and dust, with a silver-copper alloy welding process, to prevent oxidation of N2 (nitrogen) under will be made. At least 1 meter away from each carrier clamp 1 will be used in copper pipes. Copper piping is completed and before the system is switched to N2 (nitrogen) will be swept by the gas inside the tube. Copper tube copper piping installation work after the completion of the N2 (nitrogen) to 41.5 bar pressure is gradually removed by the gas shall be tested for at least 24 hours under this pressure. With Variable Refrigerant Flow Multi indoor unit mounts to be used in the air conditioning system installation, following isolated with minimum specified thickness and rubber or elastomeric rubber foam, installation of over wrapping installation, commissioning performing the test.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
281.302	Control device and extend the wireless sensor	piece	3
<b>Description/ Specifications</b>	Between all functions of the indoor unit can be controlled without any cable connection control devices and sensors, including, procurement, installation and delivery in operation		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
281.302-M	Control device and sensor assembly extends from wireless	piece	3
<b>Description/ Specifications</b>	Between all functions of the indoor unit can be controlled without any cable connection control devices and sensors, including, procurement, installation and delivery in operation		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
VK ÖBF-01	Additional R410A gas filling	kg	4.50
<b>Description/ Specifications</b>	R410A Gas filling		
<b>Book</b>	Special		

#### Electrical Works

Item no:	Item	Unit	Quantity
701-201	Special sheet panel-front cover	piece	1
<b>Description/ Specifications</b>	Technical Description: Panel on frame with dimensions: height 1.800 mm , depth 350 mm and width 500 mm made of gusset or profile, coated with 2mm DKP sheet, totally closed, with locks and covers on front or rear or both sides, with holes for installing other devices if necessary depending on the project, painting of the panel inner and outer frame against external impact with oven-dried cellulose paint at desired color, any small material, terminals for device connection, labor costs and on-site assembly.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
705-103	Built-in sheet table-0.20-0.30 m <sup>2</sup> (0,30 m <sup>2</sup> included)	piece	1
<b>Description/ Specifications</b>	Technical Description: Unit Price No. As same as 704-100 and additionally; a clamp frame for embedding the box into the wall shall be available. The sheet box can be easily mounted to this clamp frame. Measurement: Unit Price No. As same as 704-100.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
710-100	Copper Bar supply and assembly	kg	10.00
<b>Description/ Specifications</b>	Technical Description: If the installation has to be protected against humidity, dust and mechanical impacts, the boards shall be made of cast iron or aluminum and waterproof boxes		

	with sealed covers being spliced to each other. In cases where connections with sections higher than 16 mm <sup>2</sup> have to be used, distribution shall be enabled by copper bars in separate boxes. Entries to and exits from the board shall be enabled by sealed openings made of stainless steel. Upon opening a cover for the fuses to be installed, it shall be possible to control the switches even when the cover is closed. Grounding bars for safety lines and isolated bars for the neutral lines shall be available. All parts carrying current shall be made of galvanized or stainless steel. The Bar unit price shall be paid over unit price no 710-100. Construction of empty waterproof board with depth of 17 cm minimum, transport to workplace, assembly, including any material and labor and hand over in operating condition.
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
<b>713-204</b>	<b>Selector package switch-behind board- up to 3x25 A</b>	<b>piece</b>	<b>2</b>
<b>Description/ Specifications</b>	Technical Description: Supply, assembly, including any material and labor of a package switch equipped with an assembly fitting, in such way that control knob and position scale shall be in front of the board. Supply of package switch with positioning dial and control lever or knob, for board assembly, with plastic or sheet cover, rotating pivot pin, with positions as specified in the project, contact opening and closing by turning including assembly, any material and labor.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>718-102</b>	<b>Dry type non-protective contactor, up to 3x16 A</b>	<b>piece</b>	<b>1</b>
<b>Description/ Specifications</b>	Technical Description: Supply of dry-type three-phase contactor, class AC3, for frequent opening and closing, to be mounted behind board, without protective relays, with separate control knobs to be assembled on the board front including assembly, any material and labor. Measurement: The number of mounted contactors shall be counted.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>718-310</b>	<b>Time relay, used for lighting control. (Measurement pieces, preparation 60%)</b>	<b>piece</b>	<b>1</b>
<b>Description/ Specifications</b>	Technical Description: supply of time relay being designed for use in specific voltage limits, with type examination test reports and CE compliance marking according to the regulation for electrical equipment (2006/95/AT), Electromagnetic compatibility regulation (2004/108/AT), TS EN 60730-2-7 standards and directives, ensuring lighting control at desired times by calculation of the adjusted time zone through the program, equipped with output contacts, battery, user manual including transport to workplace, any supplementary small material, testing and handing over in operational condition.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>718-507</b>	<b>Residual current protection switch -up to 4x25 A (30 mA)</b>	<b>piece</b>	<b>3</b>
<b>Description/ Specifications</b>	Technical Description: Supply of residual current protection switch, designed in compliance with electrical indoor installations regulations, specifications and standards, sensing the fault current in the phases and neutral line in case of any leakage in the electrical installations and ensuring safety of life and property by switching off the circuit in a period of 10 to 30 ms,		

	operating under 220 V in single-phase circuits and under 380 V under three-phase circuits, with differential coil, with test button to control whether the system operates or not, mountable to carrying rails in the board, protected against external impacts, compliant with CEE 27 and other international standards, 30 mA for life protection, 300 mA for fire protection, operative even when neutral line is disrupted including assembly, any material and labor and handing over in operating condition.
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
<b>718-508</b>	<b>Residual current circuit-breakers up to 4x40 (30mA)</b>	<b>piece</b>	<b>3</b>
<b>Description/ Specifications</b>	Internal Electrical Installations Regulations, specifications and phases is any leakage in the electrical system made according to standard and fault current sensing on the neutral line consisting of 10 - 30 ms. cut cycle time in providing life and property by, for single-phase circuit 220 V three-phase circuit at 380 V working differential coil, which test button above to check that the system is working, the tables inside transport rails protected against external influences that can be mounted, CE 27, and in accordance with international standards, 30 mA for life protection, 300 mA for protection against fire, procurement, installation even operable leakage protection switch in the neutral line disconnection in value, all kinds of materials and labor including delivery business case.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>718-521</b>	<b>Residual current circuit-breakers up to 4x40 (300mA)</b>	<b>piece</b>	<b>1</b>
<b>Description/ Specifications</b>	Internal Electrical Installations Regulations, specifications and phases is any leakage in the electrical system made according to standard and fault current sensing on the neutral line consisting of 10 - 30 ms. cut cycle time in providing life and property by, for single-phase circuit 220 V three-phase circuit at 380 V working differential coil, which test button above to check that the system is working, the tables inside transport rails protected against external influences that can be mounted, CE 27, and in accordance with international standards, 30 mA for life protection, 300 mA for protection against fire, procurement, installation even operable leakage protection switch in the neutral line disconnection in value, all kinds of materials and labor including delivery business case.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>723-401</b>	<b>Automatic control central compensation coil-400 to V</b>	<b>kVAR</b>	<b>12.50</b>
<b>Description/ Specifications</b>	Automatic control relay complete with reagents, other features BFT No. Such as 723-300 (cos m., Capacitors, contactors and to remove stuck a circuit fuses belong to this circuit, cos m and relay transformer current required for the control circuit fuses, which controls the switch cam switches and thermal magnetic protector switch is included in the price.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
725-401	100-500 current measurement transformer / 5A	piece	3
<b>Description/ Specifications</b>	Boring and the free types of instruments to be used in the same quality, strength 5-10 VA, class: 0,5 - 1, supply and installation of measuring current transformer		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
725-731	<b>Scheduled Time 725-731 Three Phase Electronic Type (active-reactive) meter, 3x230 / 400 V 3x5 (7.5) Quantity</b>	piece	1
<b>Description/ Specifications</b>	IEC 1036-96, EN 62053-21 / 23, according to TS 62052-11 standard, Science, Industry and Technology Ministry trademark registration and the Registration Certificate, reactive measurement while capacitive and inductive measurement that can measure separately, the maximum in their specified current and voltage range Class 2 can measure the error class, a minimum of 5 (7.5) of the input current, working with frequency 50 Hz, information communication with Counter (TSE comply with the EN 62056-21 standard) can be provided with optical port (standard on adhering to the data communication in the EDIS and OBIS code system will be easily understandable terms in but the counter display will be used.) Counter Electricity Tariffs according to the Regulation, the resolution of one day per minute adhering to counter program with the divisibility properties of up to 8 different time zones, the IP 51 protection class (EN 60529) and dust made to enter the water, background on the counter-light and 6 full, with 2 decimal digit digital display, measuring instruments and electrical counters Directive (76/891 / EC) suitable TEDAŞ approved, three-phase four-wire electronic type active-reactive Meters and supplying the base, rather than transfer the business, making the delivery of installation and connection work state. (CTs fee is also paid in the current transformer system.)		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
724-401	<b>Switch fuse (3 kA)- up to 16 A</b>	piece	21
<b>Description/ Specifications</b>	Technical Description: Supply of switch fuse, to serve as switch as well, 3 kA breaking capacity, phase breaking feature for 2- and 4-poles types, B and C curve including assembly, any material and labor		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		
Item no:	Item	Unit	Quantity
724-406	<b>Switch fuse (3 kA) - up to 3x16 A</b>	piece	2
<b>Description/ Specifications</b>	Technical Description: Supply of switch fuse, to serve as switch as well, 3 kA breaking capacity, phase breaking feature for 2- and 4-poles types, B and C curve including assembly, any material and labor		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
724-407	<b>Switch fuse (3 kA) - up to 3x40 A</b>	piece	8
<b>Description/ Specifications</b>	Technical Description: Supply of switch fuse, to serve as switch as well, 3 kA breaking capacity, phase breaking feature for 2- and 4-poles types, B and C curve including assembly, any material and labor		



<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization
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Item no:	Item	Unit	Quantity
725-904	Signal light up to 250 V	piece	3
<b>Description/ Specifications</b>	Technical Description: supply of signal light, compliant with TS 2575 EN 60073 standard, built-in type, in colors as specified in the standard depending on application including transport to workplace, assembly an connections and handing over in operating condition (plug and bulb are included in the price.)		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
726-304	Grounding line -16 mm <sup>2</sup> (without conduit)	m	420
<b>Description/ Specifications</b>	Technical Description: Grounding line without conduit, to be installed on free consoles, crochets including any material and labor. (Measurement: m)		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
727-412	Lead-free PVC isolated (NYM) cable-3x1,5 mm <sup>2</sup>	m	80
<b>Description/ Specifications</b>	Technical Description: Column or supply line installation with plastic isolations of the phase and neutral conductors according to the actual lists of the electrical inner installations regulation including conduits, crochets, junction box, joints, elbows, terminals, iron console, paint, any material and labor. MEASUREMENT: The conduit length including junction box, joint is the length of the supply line. No separate payment shall be made for junction boxes, joints and crochets, in case of lengths exceeding 10 meters 1 junction box shall be placed at each 10 meters. For intermediary items, payment shall be made from the higher level.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
727-511	1 kV underground cable (NYY) -3x6 mm	m	12
<b>Description/ Specifications</b>	Building inside on walls, shelves or hooks on the wall, into the ceiling or channels, to ensure the establishment of underground cables to be laid in the channel outside the building, gate and security pipes, all kinds of material crochet and including labor.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
727-523	1 kV underground cable (NYY)-3x25+16 mm <sup>2</sup>	m	200
<b>Description/ Specifications</b>	Technical Description: Supply of underground cables to be installed surface mounted o the wall, ceiling or channels through consoles or crochets in case of indoor, to be installed into channels in case of outdoor including transport to workplace, line and safety conduits any material, crochets and labor.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
727-526	1 kV underground cable (NYY)-4x6 mm <sup>2</sup>	m	389
<b>Description/ Specifications</b>	Technical Description: Supply of underground cables to be installed surface mounted o the wall, ceiling or channels through consoles or crochets in case of indoor, to be installed into channels in case of outdoor including transport to workplace, line and safety conduits any material, crochets and labor.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
727-527	1 kV underground cable (NYY)-4x4 mm <sup>2</sup>	m	20
<b>Description/ Specifications</b>	Technical Description: Supply of underground cables to be installed surface mounted o the wall, ceiling or channels through consoles or crochets in case of indoor, to be installed into channels in case of outdoor including transport to workplace, line and safety conduits any material, crochets and labor.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
742-265	Fluorescent armature T1 (plexi-glass)-1x40 W	piece	1
<b>Description/ Specifications</b>	Technical Description: Type T1 plexi-glass fluorescent armature. (**) Supply of surface mounted plexi-glass armature of type to be approved by the administration, with special profile made of sheet with minimum thickness 0,50 mm., depth of 10 - 15 cm., depending on the type and number of bulbs, frame dimensions: 3 - 4 mm. thickness, with easily detachable cover made of mat plexi-glass or transparent prism plexi-glass with light transmittance of minimum 75 %, with frame made of sheet with special oven-dried paint or oxal aluminum, bulb shall be spliced side by side or end to end if necessary, TSE certified ballasts, lock-type socket with starter made of fire resistant material, TSE certified connecting cables including any material and labor, transport to workplace and assembly.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
742-532	ATY2-4x18 W (double-parabolic reflector) decorative drop ceiling armature	piece	8
<b>Description/ Specifications</b>	Technical Description: With special profile made of DKP with minimum 0,7 mm. thickness, hole diameter 9-11 cm., with width and length depending on bulb type and number, back sections shall be enhanced by additional twists, designed in such way that the heat generated by ballasts and the hot air in the environment shall be transferred outside from the armature, housing with special air channels, with special frame, with mounting brackets allowing fast and easy intervention, providing light distribution in form of a symmetric bat wing, with double-parabolic eloxal pure aluminum reflector standing upright or parallel to the fluorescent bulbs, made of eloxal high-purity ( 99,9%) anodic aluminum (with eloxal aluminum lamellar stripes placed upright to fluorescent bulbs with a distance of to 10 cm in case of single parabolic), protection class IP 20, coated with oven-dried paint and color to be approved by the administration (Armature efficiency shall not be less than 70%. If deemed necessary, the administration may request from the manufacturer the testings related to efficiency values and to prove such values by a certificate to be obtained from an institution laboratory), with		

	fluorescent bulbs and lock-type sockets made of fire-resistant material, with TSE certified ballasts and starters, with TSE certified connecting cables resistant to high temperatures including transport to workplace, any material, labor and handing over in operating condition.
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
<b>742-125</b>	<b>Type L2 Waterproof fixtures</b>	<b>piece</b>	<b>6</b>
<b>Description/ Specifications</b>	Same with Type L 1, only ovoid		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>734-101</b>	<b>Normal outlet, lighting outlet</b>	<b>piece</b>	<b>8</b>
<b>Description/ Specifications</b>	<p>Technical Description: Supply of surface or flush mounted lighting outlet (armature excluded) in Peschel, Bergman or PVC conduit, with minimum 2,5 mm<sup>2</sup> lines and minimum 1,5 mm<sup>2</sup> outlet lines, phase and neutral conductors colored according to TS 6429, plastic insulation including junction box, terminal, switch, armature, fixing block and any material, transport to workplace and labor (without excluded). No price difference shall be paid if wall thickness is higher than normal.</p> <p>Measurement: No separate payment shall be made unless line length exceeds 35 m.. For line lengths after 35 m, a separate payment for supply line shall be made on unit price no. 727-000. For the normal outlets and luster outlets a single outlet shall be taken as normal. Additional outlets connected to these outlets shall be deemed as parallel. In the Two-way switch outlet, two two-way switches and one outlet shall be deemed as normal outlet whereas two-way switch outlet and connected other outlets shall be deemed as parallel. The deviator switches shall be paid on their own unit prices. Among outlets controlled by switches, the first two outlets in the same place shall be deemed as one switch outlet whereas others shall be deemed as parallel outlets. If a circuit breaker is used instead of a switch, the switch cost shall be reduced from the price and the circuit breaker price shall be paid separately. Three-phase outlet is similar to normal outlet where each armature is supplied with three-phase four or five conductors. In the three-phase outlet the switch, contactor and contactor control lines shall be paid separately. If each armature is supplied from a separate phase, the first outlet shall be paid over single-phase normal outlet whereas other connected outlets shall be paid over single-phase parallel outlets. The armature prices shall be paid over unit price no. 742-000, separately.</p>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>734-102</b>	<b>Switch outlet, lighting outlet</b>	<b>piece</b>	<b>2</b>
<b>Description/ Specifications</b>	<p>Technical Description: Supply of surface or flush mounted lighting outlet (armature excluded) in Peschel, Bergman or PVC conduit, with minimum 2,5 mm<sup>2</sup> lines and minimum 1,5 mm<sup>2</sup> outlet lines, phase and neutral conductors colored according to TS 6429, plastic insulation including junction box, terminal, switch, armature, fixing block and any material, transport to workplace and labor (without excluded). No price difference shall be paid if wall thickness is higher than normal.</p> <p>Measurement: No separate payment shall be made unless line length exceeds 35 m.. For line lengths after 35 m, a separate payment for supply line shall be made on unit price no. 727-000. For the normal outlets and luster outlets a single outlet shall be taken as normal. Additional</p>		

	outlets connected to these outlets shall be deemed as parallel. In the two-way switch outlet, two two-way switches and one outlet shall be deemed as normal outlet whereas two-way switch outlet and connected other outlets shall be deemed as parallel. The deviator switches shall be paid on their own unit prices. Among outlets controlled by switches, the first two outlets in the same place shall be deemed as one switch outlet whereas others shall be deemed as parallel outlets. If a circuit breaker is used instead of a switch, the switch cost shall be reduced from the price and the circuit breaker price shall be paid separately. Three-phase outlet is similar to normal outlet where each armature is supplied with three-phase four or five conductors. In the three-phase outlet the switch, contactor and contactor control lines shall be paid separately. If each armature is supplied from a separate phase, the first outlet shall be paid over single-phase normal outlet whereas other connected outlets shall be paid over single-phase parallel outlets. The armature prices shall be paid over unit price no. 742-000, separately.
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
<b>734-104</b>	<b>Parallel sorties, sorties Lighting</b>	<b>piece</b>	<b>2</b>
<b>Description/ Specifications</b>	<p>"Pesel, Bergman or lignin lines in PVC pipe at least 2.5 mm<sup>2</sup> sorties lines at least 1.5 mm<sup>2</sup> phase and neutral conductors TS 6429 by junction to be denominated colored plastic insulated, terminals, switches, fittings, fixing wedge, all kinds of material supply, transport and labor, including work on the complete surface mounted or flush-mounted lighting made the sortie (excluding fixtures). In cases where the wall thickness is greater than normal price difference shall be paid.</p> <p>Size: Linyi length of 35 m of height will not be paid unless they exceed the cost also. To 35 m of line after line, as also the supply line Unit Price No. Shall be paid from 727-000.</p> <p>A single sortie sortie will be normal in the regular sorties and chandeliers. This additional sorties connected to lines shall be considered as parallel. Væver sorties in the two Væver key and a normal Væver the sorties sorties, consequently other parallel sortie sortie will be accepted. Pack diverters switches paid separately from their unit prices. Located in the same locality of the first two sorties sorties sorties, which is managed by commutator commutator switch, others will be considered in parallel sortie. When the key switch is used instead of keys will be deducted from the price, the price is to be paid additionally switch. Three-phase sorties, conducted every four or five fixtures to three-phase power supply conductors similar to regular sorties. Three-phase sortie switch contactor, contactor control lines also paid. The first sortie into the single-phase feed from the separate phases each regular fixtures, other related single-phase parallel sorties sorties are to be paid. Fixtures cost unit price No. He paid separately from 742-000."</p>		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>735-102</b>	<b>Safety line plug outlet</b>	<b>piece</b>	<b>20</b>
<b>Description/ Specifications</b>	Technical Description: Measurement: If the line exceeds 35 m, payment for the supply line shall be made over unit price no. 727-000.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>742-456</b>	<b>LED PRJ - up to 150 W (including 150 W) (220 V. AC.), Led Projectors</b>	<b>piece</b>	<b>2</b>
<b>Description/ Specifications</b>	Technical Description: Supply of projector, housing and front glass frame made of cast aluminum, coated with oven-dried paint, tempered front glass, resistant to temperature up to		

	250 C° and impacts, protection class IP 20, coated with silicon seal between the glass and housing, with junction box behind or under the housing, consisting of high-power LEDs with special lenses of minimum 100 lumen per watt, equipped with constant current LED driver and cooler, minimum 30.000 hours of luminous service life, minimum 90 % efficiency, operating temperature -20°C to +85°C, with necessary assembly apparatus for surface, flush or ground mounting, manufactured in accordance with TS EN 60598-1, TS 8702 EN 60598-2-5, TS EN 61347-2-13 standards and the regulation 2006/95 /AT related to electrical equipment designed for use in specific voltage limits, put on the market with CE Conformity marking including transport to workplace, any material, labor and handing over in operating condition.
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
<b>983-102</b>	<b>Ground electrode (rod) electrolytic copper according to TS 435 / T1 standard</b>	<b>piece</b>	<b>8</b>
<b>Description/ Specifications</b>	Technical Description: Supply of electrolytic copper rod of $\varnothing$ 20 mm. diameter and minimum length of 3,5 m., compliant with TS 435/T1 standard, screwing of conical headpiece to the end for penetrating into the soil, ensuring a connection by a thread of 4 cm length if the rod shall consist of 2 parts, burying into the ground at least 60 cm deep as of the surface level, connection to down conductors and building up conductors by silver welding or fixing brackets made of red matter, including any material and labor. Note: If the ground consists of rocks appropriate soil shall be sought in the surrounding.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>980-214</b>	<b>Average excitation path dl=60 m, active capture rod</b>	<b>piece</b>	<b>2</b>
<b>Description/ Specifications</b>	Technical Description: Supply of active lightning rod, with characteristics as written in the specification, with early warning operation, high corrosion resistance, made of stainless steel or material with stainless characteristics (for example chrome coated copper, chrome nickel, stainless steel etc.), resistant to highest wind speed, flawless operation temperature -40°C to +120°C, protection class IP 65, ( $\Delta$ T) warning time minimum 15 $\mu$ s, resistant to the lightning test current of class H, 100 kA as specified in TS EN 50164-1 and shall not cause any significant damage upon the test, compliant with the (NFC17-102) and (UNE 21.186) standards as well as the (TSE K 122) certification criteria, ISO 9001 and CE certified, with an operation warranty certificate of minimum 15 years approved by the Ministry of Science, Industry and Technology including transport, mounting to the post, connection of down conductors, any material, labor and handing over in operating condition. NOTE: 1- The active lightning rod type examination test shall be conducted at laboratories accredited by TURKAK and the related reports shall be submitted to the administration. 2- A document which shows that the IP 65 protection class test has been conducted by an institution accredited by TURKAK shall be submitted to the administration.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>980-300</b>	<b>Ridgepole (for the radioactive capture rod) (Measurement: Pieces, preparation: 60%)</b>	<b>piece</b>	<b>2</b>
<b>Description/ Specifications</b>	Technical Description: Supply of ridgepole with characteristics as stated in the specification made of 80 mm galvanized pipe (1 piece) length 6.5 m, including unit down conductors and		

	fixing of post and any accessories, mounting without causing any damage in the roof, if the total length including post length and fixing distance exceeds 6.5 m the surplus shall be paid over the related unit prices
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
<b>981-101</b>	<b>50 mm<sup>2</sup> electrolytic copper wire and roof up and down conductors installation</b>	<b>m</b>	<b>80</b>
<b>Description/ Specifications</b>	Technical Description: Roof and conductor installation with bare electrolytic solid copper conductor, jagged or screw type fork fixing crochets made of red cast or similar material, with measures to prevent any corrosion in the capture rod or connection points to the ground electrode, silver welding at joints of the conductors if necessary, including inspection, terminals, any material and labor.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>985-101</b>	<b>Thermo welding joint up to 32 gr welding powder</b>	<b>piece</b>	<b>4</b>
<b>Description/ Specifications</b>	Technical Description: Splicing of conductors of any section by exothermic reaction of aluminum copper oxide powder including pot, pot pliers, scraper, brush, lighter and any material and labor.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

Item no:	Item	Unit	Quantity
<b>5.5.3.2.1/009</b>	<b>AD1-70 / 15 TYPE, RANGE 80 KG.TEK console galvanized steel lighting pole</b>	<b>piece</b>	<b>14</b>
<b>Description/ Specifications</b>	AD1-70 / 15 TYPE, RANGE 80 KG.TEK console galvanized steel lighting pole		
<b>Book</b>	Turkish Electricity Distribution Corporation (TEDAŞ)		

Item no:	Item	Unit	Quantity
<b>20.5.1.-003</b>	<b>150W sodium vapor lamp, iron, wood and concrete poles, except the bulb</b>	<b>piece</b>	<b>14</b>
<b>Description/ Specifications</b>	150W sodium vapor lamp, iron, wood and concrete poles, except the bulb		
<b>Book</b>	Turkish Electricity Distribution Corporation (TEDAŞ)		

Item no:	Item	Unit	Quantity
<b>08.2.2-01</b>	<b>50mm, Cable Protection Pipe, 450N (non-metallic, underground)</b>	<b>m</b>	<b>420</b>
<b>Description/ Specifications</b>	50mm, Cable Protection Pipe, 450N (non-metallic, underground)		
<b>Book</b>	Turkish Electricity Distribution Corporation (TEDAŞ)		

Item no:	Item	Unit	Quantity
<b>982-102</b>	<b>Building Engirdling Conductor 30x3.5 mm Galvanized Steel Sheet</b>	<b>m</b>	<b>61</b>



<b>Description/ Specifications</b>	Made building engirdling conductor installation of conductors, building exterior around at least 60-80 cm depth in the open channel in every kind of soil, the closure of the conductor laying and the channel, the rivets or welding electrodes, all kinds of small parts and included labor.
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization

Item no:	Item	Unit	Quantity
<b>742.333</b>	<b>Fibreglass Reinforced Polyester hull. U1 2x40 W. Fluorescent Fixture Piece</b>	<b>piece</b>	<b>1</b>
<b>Description/ Specifications</b>	Dust, moisture and insects to enter the rubber gasket, TS 60598-1, TS 8698 EN 60598-2 / 1 standards, stainless steel hinges serving as latches that can be opened depending on the body with internal pattern can withstand high temperatures in the icy 3 mm thick acrylic cover, the high temperature resistant PIVMA (polymethylmethacrylate) capped shocks, fire-resistant glass fiber reinforced PC (polycarbonate) hull special mounting bracket IP protection class glass fiber reinforced polyester hull stainless steel armature for installation.		
<b>Book</b>	Republic of Turkey Ministry of Environment and Urbanization		

### SECTION 5A.3 DESIGN DRAWINGS

ARCHITECTURAL DRAWINGS		
No	Drawing No	Drawing Name
1	URF-BZV-TRS-ARC-101	SURVEY MAP / ETÜT HARİTASI
2	URF-BZV-TRS-ARC-102	GENERAL LAYOUT / GENEL YERLEŞİM
3	URF-BZV-TRS-ARC-103	TRAFİK İŞARETLERİ PLANI /TRAFFIC SIGN BOARDS PLAN
4	URF-BZV-TRS-ARC-104	GENEL YERLEŞİM - HAFRİYAT VE KAZI-DOLGU / GENERAL LAYOUT - GRID OF EXCAVATIONS AND EMBANKMENTS
5	URF-BZV-TRS-ARC-105	PEYZAJ PLANI / LANDSCAPE PLAN
6	URF-BZV-TRS-ARC-106	GENEL PLAN / GENERAL PLAN
7	URF-BZV-TRS-ARC-107	I-I KESİTİ / I-I SECTION
8	URF-BZV-TRS-ARC-108	II-II KESİTİ / II-II SECTION - III-III KESİTİ / III-III SECTION
9	URF-BZV-TRS-ARC-109	İŞLETME BİNASI VE KANTAR / CONTROL BUILDING AND WEIGHINGBRIDGE
10	URF-BZV-TRS-ARC-110	FOSEPTİK PLAN-KESİT / CESSPOOL PLAN-SECTIONS
11	URF-BZV-TRS-ARC-111	İŞLETME BİNASI VE KANTAR DETAYLARI / CONTROL BUILDING AND WEIGHINGBRIDGE DETAILS
12	URF-BZV-TRS-ARC-112	GENEL DETAYLAR / GENERAL DETAILS
13	URF-BZV-TRS-ARC-113	KANTAR PLAN-KESİT-GÖRÜNÜŞ-DETAYLAR / WEIGHINGBRIDGE PLAN-SECTIONS-ELEVATIONS
STRUCTURAL DRAWINGS		
No	Drawing No	Drawing Name
1	URF-BZV-TRS-STR-101	GENERAL LAYOUT / GENEL YERLEŞİM
2	URF-BZV-TRS-STR-102	TEMEL KALIP PLANI /FOUNDATION FORMWORK PLAN

3	URF-BZV-TRS-STR-103	PLATFORM PLANI / PLATFORM PLAN
4	URF-BZV-TRS-STR-104	BETONARME PERDE DETAYLARI / CONCRETE RETAINING WALL DETAILS
5	URF-BZV-TRS-STR-105	FOSEPTİK PROJESİ / CESSPOOL PROJECT
6	URF-BZV-TRS-STR-106	PREFABRİK BİNA TEMEL DETAY PAFTASI
7	URF-BZV-TRS-STR-107	BUNKER STATİK PLAN ve KESİTLERİ/BUNKER STRUCTURAL PLAN and SECTIONS
8	URF-BZV-TRS-STR-108	BUNKER STATİK PLAN ve KESİTLERİ/BUNKER STRUCTURAL PLAN and SECTIONS
9	URF-BZV-TRS-STR-109	BUNKER STATİK PLAN ve KESİTLERİ/BUNKER STRUCTURAL PLAN and SECTIONS
10	URF-BZV-TRS-STR-110	BUNKER STATİK PLAN ve KESİTLERİ/BUNKER STRUCTURAL PLAN and SECTIONS
11	URF-BZV-TRS-STR-111	BUNKER STATİK PLAN ve KESİTLERİ/BUNKER STRUCTURAL PLAN and SECTIONS
12	URF-BZV-TRS-STR-112	BUNKER STATİK PLAN ve KESİTLERİ/BUNKER STRUCTURAL PLAN and SECTIONS
13	URF-BZV-TRS-STR-113	BUNKER STATİK PLAN ve KESİTLERİ/BUNKER STRUCTURAL PLAN and SECTIONS
14	URF-BZV-TRS-STR-114	BUNKER STATİK PLAN ve KESİTLERİ/BUNKER STRUCTURAL PLAN and SECTIONS
15	URF-BZV-TRS-STR-115	BUNKER STATİK PLAN ve KESİTLERİ/BUNKER STRUCTURAL PLAN and SECTIONS
<b>MECHANICAL DRAWINGS</b>		
<b>No</b>	<b>Drawing No</b>	<b>Drawing Name</b>
1	URF-BZV-TRS-MEK-101	GENERAL LAYOUT / GENEL YERLEŞİM
2	URF-BZV-TRS-MEK-102	TAŞKIN KORUMASI VE SIZINTI SUYU İŞLERİ VE HİDROLİK TESİSAT FLOOD PROTECTION AND LEACHATE WORKS & HYDRAULIC INSTALLATION
3	URF-BZV-TRS-MEK-103	İDARİ BİNA MEKANİK UYGULAMA PROJESİ ADMINISTRATIVE BUILDING MECHANICAL APPLICATION PROJECT
4	URF-BZV-TRS-MEK-104	İDARİ BİNA İKLİMLENDİRE PROJESİ ADMINISTRATIVE BUILDING AIR-CONDITIONER PROJECT
5	URF-BZV-TRS-MEK-105	DETAY PAFTASI
<b>ELECTRICAL DRAWINGS</b>		
<b>No</b>	<b>Drawing No</b>	<b>Drawing Name</b>
1	URF-BZV-TRS-ELK-101	GENERAL LAYOUT / GENEL YERLEŞİM
2	URF-BZV-TRS-ELK-102	KABLO KANALLARI VE MENHOL PLANI / CABLE DUCT AND MANHOLE PLAN
3	URF-BZV-TRS-ELK-103	ADMINISTRATIVE BUILDING ELECTRICAL APPLICATION PROJECT
4	URF-BZV-TRS-ELK-104	AYDINLATMA DİREĞİ PLAN VE GERİLİM DÜŞÜMÜ HESABI OUTDOOR LIGHTING POLE and VOLTAGE DROP CALCULATION
5	URF-BZV-TRS-ELK-105	PARATONER PLANI / LIGHTNING ROD PLAN

## Section 5b: Other Related Requirements

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

Commencement of work	The Contractor shall commence work within 7 days from the date on which he shall have been given access to the Site and received the notice to commence from the Engineer
Time limit for submission of Programme of Work (Clause 13 of UNDP General Conditions of Contract for Civil Works)	The Contractor shall submit to the Engineer the Programme of Work in 7 days from the contract signature date.
Price and Payment Terms	The contract is based on unit price, and the final price of the Contract will be determined on the basis of actual quantities of work and materials utilized in the complete and satisfactory performance of the Works as certified by the Engineer and the unit prices contained in the Contractor's financial proposal. Such unit prices are fixed and are not subject to any variation whatsoever.
Currency of Payment	United States Dollar If supplier is registered in Turkey, the payment shall be realized in Turkish Liras (TRY). Contract price will be converted from United States Dollar (USD) to Turkish Liras (TRY) by the UN operational rate of exchange <sup>6</sup> valid on the date of money transfer.
Interim Payment	The Contractor shall submit an invoice for the work performed and materials utilized <b>every month</b> .
Insurance of work	For all risks stipulated by Clause 21 of UNDP General Conditions of Contract for Civil Works
Minimum amount of liability insurance (Clause 23 of UNDP General Conditions of Contract for Civil Works)	15 % of the total estimated price of the Contract

<sup>6</sup> Available at the website: <https://treasury.un.org/operationalrates/OperationalRates.php#E>

## 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:

<b>Have you duly completed all the Returnable Bidding Forms?</b>	
▪ 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	<input type="checkbox"/>
▪ Form G: Form of Bid Security	<input type="checkbox"/>
<b>Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?</b>	<input type="checkbox"/>

### Price Schedule:

▪ Form F: Price Schedule Form	<input type="checkbox"/>
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## 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 complete civil works Construction of Solid Waste Transfer Station in Bozova/Şanlıurfa 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 complete civil works in conformity with the Bidding documents, including the UNDP General Conditions of Contract for Civil Works 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

<b>Legal name of Bidder</b>	[Complete]
<b>Legal address</b>	[Complete]
<b>Year of registration</b>	[Complete]
<b>Bidder's Authorized Representative Information</b>	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
<b>Are you a UNGM registered vendor?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, [insert UGNM vendor number]
<b>Are you a UNDP vendor?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, [insert UNDP vendor number]
<b>Countries of operation</b>	[Complete]
<b>No. of full-time employees</b>	[Complete]
<b>Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):</b>	[Complete]
<b>Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? (If yes, provide a Copy of the valid Certificate):</b>	[Complete]
<b>Does your Company have a written Statement of its Environmental Policy? (If yes, provide a Copy)</b>	[Complete]
<b>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</b>	[Complete]
<b>Is your company a member of the UN Global Compact</b>	[Complete]
<b>Contact person that UNDP may</b>	Name and Title: [Complete]



**contact for requests for  
clarifications during Bid evaluation**

**Please attach the following  
documents:**

Telephone numbers: [Complete]

Email: [Complete]

- Company Profile, which should not exceed fifteen (15) pages,
- 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
- Power of Attorney.
- 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 civil works to be performed
1	[Complete]	[Complete]
2	[Complete]	[Complete]
3	[Complete]	[Complete]

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

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

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.

### SECTION 2: Method Statement

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 complete civil works, 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. (e.g. Environmental Management Plan)

### 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 civil works.

### Format for CV of Proposed Key Personnel

<b>Name of Personnel</b>	[Insert]
<b>Position for this assignment</b>	[Insert]
<b>Nationality</b>	[Insert]
<b>Language proficiency</b>	[Insert]
<b>Education/ Qualifications</b>	<i>[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]</i> [Insert]
<b>Professional certifications</b>	<i>[Provide details of professional certifications relevant to the scope of civil works]</i> <ul style="list-style-type: none"> <li>▪ Name of institution: [Insert]</li> <li>▪ Date of certification: [Insert]</li> </ul>
<b>Employment Record/ Experience</b>	<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]
<b>References</b>	<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]		

The Bill of Quantities is the document containing an itemized breakdown of the works to be carried out in a unit price contract, indicating a quantity for each item and the corresponding unit price. The quantities set out in the Bill of Quantities are estimated quantities.

The amounts due shall be determined through the measurement of the actual quantities of the works executed and by applying the unit rates to the quantities actually executed for the respective items.

Contingencies for use can only be executed by administrative order of the Engineer in accordance with the terms of the contract.

The prices inserted in the Bill of Quantities are to be the full inclusive values of the works described under the items, including all costs and expenses which may be required in and for the construction of the works described together with any temporary works and installations which may be necessary, and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based. It will be assumed that establishment charges, profit and allowances for all obligations are spread evenly over all the unit rates.

Save where the technical specifications or the Bill of Quantities specifically and expressly state otherwise, only permanent works are to be measured.

No allowance will be made for loss of materials or volume thereof during transport or compaction.

The prices do not include the taxes and fiscal duties, whose exoneration is explicitly given for the contract. The non-exonerated taxes and fiscal duties are, apart from those which are stated separately in these financial offer documents, covered in the prices of the Bill of Quantities.

In the bill of quantities, rates and prices shall be entered by the Contractor in the appropriate columns in USD. In the Unit Price column in the Bill of Quantities Unit Rates shall include the overheads. "Overheads" shall be deemed to cover:

- i. Profit
- ii. Head Office charges
- iii. Site Supervision and Site Staff costs and expenses
- iv. Transport of labour and travelling allowances
- v. Use of protective clothing or equipment
- vi. Any statutory or incidental charges levied on the employment of labour
- vii. Overtime, unless specifically ordered or subsequently sanctioned in writing by the Engineer
- viii. Time lost due to inclement weather
- ix. Insurances of whatsoever nature
- x. Holiday and sickness pay or benefits
- xi. Use, repair and sharpening of small tools

- xii. All non-mechanically operated equipment, erected scaffolding, staging and trestles, protective clothing, artificial lighting, storage facilities and the like that may be in general use on the site
- xiii. All other liabilities and obligations whatsoever

The units of measurement used in the annexed technical documentation are those of the International System of Units (SI). No other units may be used for measurements, pricing, detail drawings etc. (Any units not mentioned in the technical documentation must also be expressed in terms of the SI.) Abbreviations used in the bill of quantities are to be interpreted as follows:

mm	means	millimetre
m	means	metre
da	means	decare
mm <sup>2</sup>	means	square millimetre
m <sup>2</sup>	means	square metre
m <sup>3</sup>	means	cubic metre
kg	means	kilogram
ton	means	tonne (1000 kg)
pcs	means	pieces
h	means	hour
Ls.	means	Lump sum
km	means	kilometre
l	means	litre
kVAR	means	kilovolt ampere reactive
%	means	per cent

**Currency of the Bid:** United States Dollar, USD

## Price Schedule

Item #	Description	Total Price
1	Civil Works	
2	Mechanical Works	
3	Electrical Works	
<b>Total estimated price (item 1 +item 2 +item 3)</b>		

Excel format of Bill of Quantities shall also be provided with the Bid. In case of any discrepancy between the excel format and the following formats, the prices given in the below format shall prevail.

**Bill of quantities for Civil Works;**

#	Item No	Item (in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD)
1	Y.15.001/2B	Excavation of soft and hard soil at any width and depth by machine (deep excavation) /// Makine ile her derinlik ve her genişlikte yumuşak ve sert toprak kazılması	m <sup>3</sup>	2,046.47		
2	Y.15.006/2B	Excavation of soft and hard loose at any depth and width by machine (deep excavation) /// Makine ile her derinlik ve her genişlikte yumuşak ve sert küskülük kazılması	m <sup>3</sup>	4,775.09		
3	N-012	Transport of excavation surplus material to the warehouse at 1 km distance /// Kazı fazlası malzemenin 1 km depoya nakliyesi	m <sup>3</sup>	4,018.91		
4	KGM/2205	Irrigation and compression of any type of soil /// Dolgunun sulanması ve sıkıştırılması	m <sup>3</sup>	2,802.65		
5	Y.15.140/04	Supply of gravel and flooring, irrigation and compression by machine /// Çakıl temin edilerek, makine ile serme, sulama ve sıkıştırma yapılması	m <sup>3</sup>	368.00		
6	KGM/6040	Formation of Base layer [with crushed and screened quarry stone (1 inch)] /// Temel Yapılması [Kırılmış ve Elenmiş Ocak Taşı ile ]	m <sup>3</sup>	1,197.69		
7	KGM/6100/3-1	Plant-Mix Sub base production (with crushed and screened quarry stone) /// Plentmix ile Alt Temel Yapılması	ton	2,155.84		
8	15.150/K	Laying the sub base and base material /// Alt temel ve temel malzemelerinin figüre edilmesi	m <sup>3</sup>	2,395.38		
9	N-041	Transport price to base and subbase materials from 20000 m distance /// Çakıl Alt temel ve temel malzemelerinin 20 km nakliyesi	ton	4,311.68		

#	Item No	Item (in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD)
10	KGM/16.002/K	Plain concrete at each dosage (with concrete mixer) /// <i>Demirsiz Beton</i>	m <sup>3</sup>	185.54		
11	Y.21.001/03	Production of reinforced concrete plain surface form works with plywood /// <i>Plywood ile düz yüzeyli betonarme kalıbı yapılması</i>	m <sup>2</sup>	3,529.00		
12	Y.23.014	Cutting, bending and placement of Ø 8- Ø 12 mm deformed concrete steel bars /// <i>Ø 8-12 mm Nervürlü Demir</i>	ton	33.58		
13	Y.23.015	Cutting, bending and placement of Ø 14- Ø 28 mm deformed concrete steel bars /// <i>Ø 14-28 mm Nervürlü Demir</i>	ton	71.60		
14	N-093	Transport price to 360000 m distance /// <i>Nervürlü Demir ve Hasır Çelik Nakliyesi 360 km</i>	ton	146.87		
15	Y.23.010	Ribbed wire mesh (1.50-3.00 kg/m2) Installation /// <i>Nervürlü hasır çeliğin (1.50-3.00 kg/m2) yerine konulması</i>	ton	40.37		
16	Y.16.050/16	Concreting of C 30/37 compressive strength class concrete being manufactured at a concrete plant or purchased (including concrete transport) /// <i>Beton santralinde üretilen veya satın alınan ve beton pompasıyla basılan, C 30/37 basınç dayanım sınıfında beton dökülmesi</i>	m <sup>3</sup>	1,042.00		
17	Y.16.050/15	Concreting of C 25/30 compressive strength class concrete being manufactured at a concrete plant or purchased (including concrete transport) /// <i>Beton santralinde üretilen veya satın alınan ve beton pompasıyla basılan, C 25/30 basınç dayanım sınıfında beton dökülmesi</i>	m <sup>3</sup>	1,094.50		

#	Item No	Item (in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD)
18	Y.21.050/C13	Mold scaffolding from steel pipe (between 6,01-8,00m) /// Çelik borudan kalıp iskelesi yapılması (6,01-8,00m arası)	m <sup>3</sup>	625.00		
19	Y.21.050/C12	Mold scaffolding from steel pipe (between 4,01-6,00 m) /// Çelik borudan kalıp iskelesi yapılması (4,01-6,00 arası)	m <sup>3</sup>	555.00		
20	Y.21.050/C11	Mold scaffolding from steel pipe (between 0,00-4,00 m) /// Çelik borudan kalıp iskelesi yapılması (0,00-4,00 m arası)	m <sup>3</sup>	1,234.00		
21	Y.23.176	Making and replacing various iron works from iron band, hollow section and steel profile /// Çeşitli demir işleri yapılması	kg	26,507.65		
22	Y.25.002/01	Two layers of coating on metal surfaces against corrosion /// Demir yüzeylere korozyona karşı iki kat boya yapılması	m <sup>2</sup>	675.00		
23	Y.26.017/032	Covering with 8 cm height normal cement steam cured concrete paving stone (every size, color and texture) /// 8 cm yüksekliğinde normal çimentolu buhar kürlü beton parke taşı ile döşeme kaplaması yapılması (her ebat, renk ve desende)	m <sup>2</sup>	225.00		
24	17.141/IB	Concrete border construction /// Beton Bordür Yapılması	m	745.00		
25	KGM/37.556/K	Grass seed sowing /// Çim Tohumu ekme	da	2.00		
26	37.092/2	Supply of topsoil. (Including Transport) /// Bitkisel toprağın temini	m <sup>3</sup>	300.00		
27	37.092/3	Layering of topsoil - 10 to 15 cm thickness /// Bitkisel kaplama yapılacak saha üzerinde 10-15 cm kalınlıkta serilmesi imalatı	m <sup>3</sup>	300.00		

#	Item No	Item (in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD)
28	MSB.521/B2	Roof coating with painted trapezoidal section sheet /// Trapez Levhalar ile Çatı ve Cephe Kaplaması Yapılması	m <sup>2</sup>	612.50		
29	N-040	Transport price to 15000 m distance /// Bunker Etrafı Trapez levhaların 15 km nakliyesi	ton	5.29		
30	23.260/IB-1	Cons. of reinforced concrete gauze with post of 2 63 m height and protective fences /// 2 63 m yük. Beton. direkli kafes teli ile himaye Çiti yapılması	m	835.18		
31	I-ÖBF 1	Site Signboard with foot pedestal	pcs	1.00		
32	I-ÖBF 2	Supply and assembly of 101.65 m <sup>2</sup> Prefab Building /// 101.65 m <sup>2</sup> Prefabrik Bina Temini ve Montajı	pcs	1.00		
33	Y.18.460/24	200 mm nominal diameter, rather than supply and laying of PVC corrugated drainage pipe /// ø200 mm Spiral Sarımlı Pvc Boru Döşenmesi (Drenaj,Y.Suyu İçin)	m	428.00		
34	Y.18.461/041	Laying of geotextile /// Geotekstil Keçe Serilmesi	m <sup>2</sup>	4,850.00		
35	12.2190/1	Steam cured 500 Dose Precast Manhole base(H=0.6m) with Ø 200 outlet (one out and one inlet) /// Ø 200 Çıkışlı Baca Taban Elemanı (1 GİRİŞ-1 ÇIKIŞ)	pcs	5.00		
36	12.2190/2	Steam Cured 500 Doses Precast Manhole Riser (H = 0.50 M., Joints with 600 Dose Mortar) /// Buhar Kürlü 500 Dz.Pref.Gövde Eleman.Parsel Bacası Teşkilî (H=0.50 Mt.,Birl.Yeri 600 Dz.Harç)	pcs	5.00		



#	Item No	Item (in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD)
37	12.2190/3	Steam Cured 500 Dz. Precast Manhole Riser (H = 0.25 M. Joints with 600 Dose Mortar) /// Buhar kürlü 500 DZ.pref.gövde eleman.parsel bacasi teşkili (H=0.25 mt.)	pcs	3.00		
38	12.2190/4	Steam Cured, Precast Manhole Adjustment Ring With 500 Dose /// Buhar kürlü 500 dz.pref.gövde yüks. ayar elemani ile parsel bacasi teşkili	m	0.37		
39	12.2190/5	The Placing of precast Concrete(350 dose ) manhole cover and frame /// BS 18 Beton imal edilmiş çerçevesi pref.b.a.kapağın yerleştirilmesi	pcs	5.00		
40	I-ÖBF 3	Traffic signs and boards /// Trafik İşaret Levhası	pcs	5.00		
41	I-ÖBF 4	False Acacia, Juniper, Acorn Oak, Aleppo Pine trees and planting supplies /// Yalancı Akasya, Katran Ardıcı, Palamut Meşesi, Halep Çamı ağaç temini ve dikimi	pcs	327.00		
<b>TOTAL AMOUNT (USD)</b>						

**Bill of quantities for Mechanical Works;**

#	Item No	Item(In English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD )
1	M ÖBF 1	Floor Scales Over 60 Tons /// Zemin Üstü 60 Tonluk Kantar	pcs	1.00		
2	204.811	Polyethylene pipes, PE100 PN CLASS (8 atm) Ø mm: 32 (Exterior Building Ground) /// Polietilen boru, PE100 sınıfı PN (8 atm) Ø mm :32 (Bina dışı toprağa)	m	10.00		
3	204.812	Polyethylene pipes, PE100 PN CLASS (8 atm) Ø mm: 40 (Exterior Building Ground) /// Polietilen boru, PE100 sınıfı PN (8 atm) Ø mm :40 (Bina Dışı Toprağa)	m	2.00		

#	Item No	Item(in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD )
4	204.813	Polyethylene pipes, PE100 PN CLASS (8 atm) Ø mm: 50 (Exterior Building Ground) /// Polietilen boru, PE100 sınıfı PN (8 atm) Ø mm :50 (Bina Dışı Toprağa)	m	125.00		
5	12.2201	Ø 100 Corrugated Pipe supply and laying /// Ø100 Koruge Boru temini ve Döşenmesi	m	25.75		
6	12.2202	Ø 200 Corrugated Pipe supply and laying /// Ø200 Koruge Boru temini ve Döşenmesi	m	192.83		
7	12.2203	Ø 300 Corrugated Pipe supply and laying /// Ø300 Koruge Boru temini ve Döşenmesi	m	88.39		
8	105.603	3.75m3 . Galvanized Steel module WATER TANK /// Galvanizli moduler SU DEPOSU 3.75 m3	pcs	1.00		
9	15.D.62	Pipe trench excavation in all kind of loose rock /// Her cins küskülük zeminde boru hendeği kazısı	m <sup>3</sup>	44.80		
10	204-814/B	Polyethylene Pipe PE100 SDR 17 class series PN (10 atm) Ø mm: 50 (Exterior Building Ground) /// Polietilen boru PE100 sınıfı SDR 17 serisi PN (10 atm) Ø mm :50 (Bina Dışı Toprağa)	m	85.26		
11	204-3102	PN.20 polypropylene water borusu1 / 2 "(inside the building) /// PN.20 polipropilen temiz su borusu1/2" (Bina İçinde)	m	15.00		
12	204-3103	PN.20 polypropylene water borusu 3 / 4 "(inside the building) /// PN.20 polipropilen temiz su borusu3/4" (Bina İçinde)	m	12.00		
13	204-402	Hard plastic PVC sewage pipe Ø mm outer diameter: 75-70 mm Thickness: 3.0 Application: B-BD /// Sert PVC plastik pis su borusu Dış Çap Ø mm :75 - 70 Et Kalınlığı mm : 3,0 Kullanım Yeri : B-BD	m	7.00		

#	Item No	Item(in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD )
14	204-403	HARD PLASTIC PVC SEWAGE PIPE Ø mm Diameter: 100-110 mm Thickness: 3.0 Application: B-BD /// Sert PVC plastik pis su borusu Dış Çap Ø mm :100 - 110 Et Kalınlığı mm : 3,0 Kullanım Yeri : B-BD	m	7.00		
15	097-203	Place of hard plastic drain 10X10 cm /// Yer süzgeci sert plastik 10X10 cm	pcs	3.00		
16	210-624	Ball valve (brass, Teflon Gasket) Ø 20 mm. /// Küresel vana (Pirinç,Teflon Contalı) 20 Ø mm.	pcs	1.00		
17	210-625	Ball valve (brass, Teflon Gasket) Ø 25 mm. /// Küresel vana (Pirinç,Teflon Contalı) 25 Ø mm.	pcs	1.00		
18	210-626	Ball valve (brass, Teflon Gasket) Ø 32 mm. /// Küresel vana (Pirinç,Teflon Contalı) 32 Ø mm.	pcs	1.00		
19	210-729	Ball valve (PN 25-40) (Steel Casting, Screw) Ø 50 mm. /// Küresel vana (PN 25-40) (Çelik Döküm, Vidalı) ø 50 mm.	pcs	5.00		
20	221-207	Strainer PN 16 (for water vapor, Cast Iron) ø 50 mm /// Pislik tutucu,PN 16,( Buhar+Su için,Pik Dök.)ø 50 mm	pcs	3.00		
21	227-301	Non-return valve, Ø 50 mm /// Geri tepme ventili, ø 50 mm	pcs	1.00		
22	089-101	Brief taps 1/2 "(filter included badge) /// Kısa musluk 1/2" (Süzgeçli rozet dahil)	pcs	2.00		
23	103-108	Cold water meters /// soğuk su sayacı	pcs	1.00		

#	Item No	Item(in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD )
24	107-1101	Flow: 0-5 m <sup>3</sup> / h Pressure: 20-40mss single pump vertical shaft frequency converter is HYDROPHORE /// Debi:0-5 m <sup>3</sup> /h, Basınç:20-40mSS, tek pompalı düşey milli frekans konvertörlü hidrofor	pcs	1.00		
25	280.2103	Cooling capacity (NOM): 3 KW. heating capacity (NOM): 3.5 KW. wall unit /// Soğutma kapasitesi (NOM):3 KW., ısıtma kapasitesi (NOM):3,5 KW. duvar tipi iç ünite	pcs	3.00		
26	280.2103-M	Mount cooling capacity (NOM): 3 KW. heating capacity (NOM): 3.5 KW. Wall unit /// Mont soğutma kapasitesi (NOM):3 KW., ısıtma kapasitesi (NOM):3,5 KW. duvar tipi iç ünite	pcs	3.00		
27	280.2208	Multi VRF outdoor unit: Rated Heating Capacity: 9.0 kW /// Multi VRF Dış Ünitesi Nominal Isıtma Kapasitesi : 9.0 kW	pcs	1.00		
28	v.1882/1	Wall split air conditioners UNIT 9.000 Btu / h /// Duvar tipi split klima cihazı 9.000 Btu/h	pcs	5.00		
29	v.1882/1-M	Equipment installation wall split air conditioners 9.000 Btu / h /// Mont.duvar tipi split klima cihazı 9.000 Btu/h	pcs	5.00		
30	v.1882/2	Wall split air conditioners DEVICE 12.000 Btu / h /// Duvar tipi split klima cihazı 12.000 Btu/h	pcs	1.00		
31	v.1882/2-M	Equipment installation wall split air conditioners 12.000 Btu / h /// Mont.duvar tipi split klima cihazı 12.000 Btu/h	pcs	1.00		
32	281.501	Copper pipe group 1/4 "0.8 MM (13 MM İZO) copper piping systems /// Bakır boru grubu 1/4 " 0,8 MM (13 MM İZO) bakır borulama tesisatı	m	16.00		

#	Item No	Item(in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD )
33	281.501-M	Installation copper tube group 1/4 "0.8 MM (13 MM İZO) copper piping systems /// Mont.bakir boru grubu 1/4 " 0,8 MM (13 MM İZO) bakir borulama tesisati	m	16.00		
34	281.503	Copper pipe group 1/2 "0.8 MM (13 MM İZO) copper piping systems /// Bakir boru grubu 1/2 " 0,8 MM (13 MM İZO) bakir borulama tesisati	m	16.00		
35	281.503-M	Installation copper tube group 1/2 "0.8 MM (13 MM İZO) copper piping systems /// Mont.bakir boru grubu 1/2 " 0,8 MM (13 MM İZO) bakir borulama tesisati	m	16.00		
36	281.302	Control device and extend the wireless sensor /// Kablosuz uzaktan kumanda cihazı ve algılayıcı	pcs	3.00		
37	281.302-M	Control device and sensor assembly extends from wireless /// Mont.kablosuz uzaktan kumanda cihazı ve algılayıcı	pcs	3.00		
38	VK ÖBF-02	Additional R410A gas filling /// R410A llave gaz dolum	kg	4.50		
<b>TOTAL AMOUNT (USD)</b>						

#### Bill of quantities for Electrical Works;

#	Item No	Item (in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD )
1	701-201	Special sheet panel-front cover /// Önden kapaklı saç pano	pcs	1		
2	705-103	Built in sheet table /// Gömme tip saç tablo (0.20-0.30 m2)	pcs	1		
3	710-100	Copper bar supply and assembly /// Bakır bara temini, montajı ve boyası	kg	10		
4	713-204	Selector package switch-behind board- up to 3x25 A /// Seçici tip pako şalter 3*25 A.	pcs	2		

#	Item No	Item (in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD )
		(Tablo Arkasına) (TS 4915 EN 60669-1, TS EN 60947-3)				
5	718-102	Dry type non-protective contactor, up to 3x16 A /// Kuru tip koruyucusuz kontaktör 3*16 A.	pcs	1		
6	718-310	Time relay, used for lighting control. (Measurement pieces, preparation 60%) /// Aydınlatma kontrollünde kullanılan zaman rölesit	pcs	1		
7	718-507	Residual current protection switch -up to 4x25 A (30 mA) /// Kaçak akım koruma şalteri 4*25 A.e kadar(30mA)	pcs	3		
8	718-508	Residual current circuit-breakers up to 4x40 (30mA) /// Kaçak akım koruma şalteri 4*40 A.e kadar(30mA)	pcs	3		
9	718-521	Residual current circuit-breakers up to 4x40 (300mA) /// Kaçak akım koruma şalteri 4*40 A.e kadar(300mA)	pcs	1		
10	723-401	Automatic control central compensation coil-400 to V /// Otomatik kumandali merkezi kompanzasyon bataryalari	kVAR	12.5		
11	725-401	100-500 current measurement transformer / 5A /// Akım ölçü trafosu 100 - 500/5 A.	pcs	3		
12	725-731	Scheduled Time 725-731 Three Phase Electronic Type (active-reactive) meter, 3x230 / 400 V 3x5 (7.5) Quantity /// 3 Faz reaktif elekt. elektrik SAY.3*230/400A.e Ka	pcs	1		
13	724-401	Switch fuse (3 kA)- up to 16 A /// Anahtarli otomatik sigorta 16 A. (3KA) ( TS 5018-1 EN 60898-1 )	pcs	21		
14	724-406	Switch fuse (3 kA) - up to 3x16 A /// 3 fazli anahtarli	pcs	2		



#	Item No	Item (in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD )
		otomatik sigorta 16 A. (3KA) ( TS 5018-1 EN 60898-1 )				
15	724-407	Switch fuse (3 kA) - up to 3x40 A /// 3 fazli anahtarli otomatik sigorta 40 A. (3KA) ( TS 5018-1 EN 60898-1 )	pcs	8		
16	725-904	Signal light up to 250 V . /// İşaret lambası 250 V.a kadar	pcs	3		
17	726-304	Grounding line -16 mm <sup>2</sup> (without conduit) /// Borusuz serbest döşenen topraklama HATTI 16 mm <sup>2</sup>	m	420		
18	727-412	Lead-free PVC isolated (NYM) cable-3x1,5 mm <sup>2</sup> /// Kurşunsuz PVC izoleli kabloyla besleme hattı 3*1.5 mm <sup>2</sup> NYM	m	80		
19	727-511	1 kV underground cable (NYY) -3x6 mm /// 1KV yeraltı kablosu ile kolon ve besleme hattı 3*6 mm <sup>2</sup> NYY (TS IEC 60502-1)	m	12		
20	727-523	1 kV underground cable (NYY)-3x25+16 mm <sup>2</sup> /// 1KV yeraltı kablo.kolon ve besleme hattı 3*25+16 mm <sup>2</sup> NYY (TS IEC 60502-1)	m	200		
21	727-526	1 kV underground cable (NYY)-4x6 mm <sup>2</sup> /// 1KV yeraltı kablo.kolon ve besleme hattı 4*6 mm <sup>2</sup> NYY (TS IEC 60502-1)	m	389		
22	727-527	1 kV underground cable (NYY)-4x4 mm <sup>2</sup> /// 1KV yeraltı kablo.kolon ve besleme hattı 4*4 mm <sup>2</sup> NYY (TS IEC 60502-1)	m	20		
23	742-265	Fluorescent armature T1 (plexi-glass)-1x40 W /// T1P T1-1*40 W. plexiglas floresan armatür	pcs	1		
24	742-532	ATY2-4x18 W (double-parabolic reflector) decorative drop ceiling armature ///Dekoratif amaçlı asma tavan armatürü: ATY2- 4x18 W	pcs	8		

#	Item No	Item (in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD )
25	742-125	Type L2 Waterproof fixtures /// TİP L2 etanş armatür	pcs	6		
26	734-101	Normal outlet, lighting outlet /// Normal aydınlatma sortisi	pcs	8		
27	734-102	Switch outlet, lighting outlet /// Komütatör aydınlatma sortisi	pcs	2		
28	734-104	Parallel sorties, sorties Lighting ///Paralel aydınlatma sortisi	pcs	2		
29	735-102	Safety line plug outlet /// Güvenlik hatli priz sortisi	pcs	20		
30	742-456	LED PRJ - up to 150 W (including 150 W) (220 V. AC.), Led Projectors /// LED PRJ. 150 WATA kadar (220 V. AC.)	pcs	2		
31	983-102	Ground electrode (rod) electrolytic copper according to TS 435 / T1 standard /// Toprak elektrodu (çubuk), elektrolitik bakır	pcs	8		
32	980-214	Average excitation path dl=60 m, active capture rod /// Aktif yakalama ucu ortalama uyarım yolu L=60 MT	pcs	2		
33	980-100	Ridgepole (for the radioactive capture rod) (Measurement: Pieces, preparation: 60%) /// Çati direği (aktif yakalama ucu için)	pcs	2		
34	981-101	50 mm <sup>2</sup> electrolytic copper wire and roof up and down conductors installation /// Çati ihata ve indirme iletkeni 50 mm <sup>2</sup> Elektrolitik Bakır İletken	m	80		
35	985-101	Thermo welding joint up to 32 gr welding powder /// Termokaynak eki 32 gr.kaynak tozuna kadar	pcs	4		
36	5.5.3.2.1/009	AD1-70 / 15 type, range 80 kg. one console galvanized steel lighting pole /// AD1-70/15 tipi, 80 kg.tek konsollu	pcs	14		

#	Item No	Item (in English /// in Turkish)	Unit	Quantity	Unit Price (USD)	Amount(USD )
		<i>galvanizli çelik poligon aydinlatma diređi</i>				
37	20.5.1.-003	150W sodium vapor lamp, iron, wood and concrete poles, except the bulb ///150W Sodyum Buharlı Armatür Demir, Ağaç ve Beton Direklerde, Ampulü Hariç	pcs	14		
38	08.2.2-01	50mm, Cable Protection Pipe, 450N (non-metallic, underground) /// 50mm, Kablo Muhafaza Borusu, 450N (Metalik olmayan, yeraltına)	m	420		
39	982-102	Building Engirdling Conductor 30x3.5 mm Galvanized Steel Sheet /// Bina ihata iletkeni 30x3.5 MM galvanizli çelik lama	m	61		
40	742-333	Fibreglass Reinforced Polyester hull. U1 2x40 W. Fluorescent Fixture /// Cam elyaf takviyeli polyester gövde.U1 2*40 W.floresan armatür	pcs	1		
<b>TOTAL AMOUNT (USD)</b>						

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.**

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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 complete the works stipulated in the ITB with reference UNDP-TUR-ITB(MC2)-2018/04 with the title "Construction of Solid Waste Transfer Station in Bozova/Şanlıurfa" (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]*