

REQUEST FOR QUOTATION (RFQ)

RFQ Reference: UNDP-TUR-RFQ(KR)-2021/008	Date: 18 March 2021

SECTION 1: REQUEST FOR QUOTATION (RFQ)

UNDP kindly requests your quotation for "**Construction Works of Renewable Energy Workshop in Mersin**" within the scope of "*Increasing Employability for Syrian Refugees and Turkish Host Communities in the Renewable Energy Sector*" titled project as detailed in Annex 1 of this RFQ.

This Request for Quotation comprises the following documents:

Section 1: This request letter

Section 2: RFQ Instructions and Data

Annex 1: Schedule of Requirements

Annex 2: Quotation Submission Form

Annex 3: Technical and Financial Offer

Annex 4: General Terms and Conditions

Annex 5: Site Survey and Construction Drawings

Annex 6: Site Pictures

When preparing your quotation, please be guided by the RFQ Instructions and Data. Please note that quotations must be submitted using Annex 2: Quotation Submission Form and Annex 3 Technical and Financial Offer, by the method and by the date and time indicated in Section 2. It is your responsibility to ensure that your quotation is submitted on or before the deadline. Quotations received after the submission deadline, for whatever reason, will not be considered for evaluation.

Thank you and we look forward to receiving your quotations.

Issued by:

Signature: Name: Sukhrob Khojimatov Title: Deputy Resident Representative Date: 18 March 2021

SECTION 2: RFQ INSTRUCTIONS AND DATA

Introduction	Bidders shall adhere to all the requirements of this RFQ, including any amendments made in writing by UNDP. This RFQ is conducted in accordance with the <u>UNDP Programme and Operations Policies</u> and Procedures (POPP) on Contracts and Procurement		
	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 RFQ.		
	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.		
Deadline for	01 April 2021, 17:00 hrs. (GMT+3, Local time-Turkey)		
the Submission of Quotation	If any doubt exists as to the time zone in which the quotation should be submitted, refer to <u>http://www.timeanddate.com/worldclock/.</u>		
Method of	Quotations must be submitted as follows:		
Submission	⊠ Dedicated Email Address		
	Bid submission address: tr.procurement@undp.org		
	File Format: PDF		
	 File names must be maximum 60 characters long and must not contain any letter or special character other than from Latin alphabet/keyboard. 		
	 All files must be free of viruses and not corrupted. 		
	 Max. File Size per transmission: 35 MB and no more than five email 		
	Mandatory subject of email: UNDP-TUR-RFQ(KR)-2021/008 – Construction Works of		
	Renewable Energy Workshop in Mersin		
	 Multiple emails must be clearly identified by indicating in the subject line "email no. X of Y", and the final "email no. Y of Y. 		
	 It is recommended that the entire Quotation be consolidated into as few attachments as possible. 		
Cost of	UNDP shall not be responsible for any costs associated with a Supplier's preparation and submission		
preparation	of a quotation, regardless of the outcome or the manner of conducting the selection process.		
Supplier	All prospective suppliers must read the United Nations Supplier Code of Conduct and acknowledge		
Code of	that it provides the minimum standards expected of suppliers to the UN. The Code of Conduct, which includes principles on labour, human rights, equivalent and othical conduct may be found at		
Fraud.	includes principles on labour, human rights, environment and ethical conduct may be found at:		
Corruption,			
	Moreover, UNDP strictly enforces a policy of zero tolerance on proscribed practices, including fraud,		
	requires all hidders/vendors to observe the highest standard of ethics during the procurement		
	process and contract implementation. UNDP's Anti-Fraud Policy can be found at		
	http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_an		
	dinvestigation.html#anti		
Gifts and	Bidders/vendors shall not offer gifts or hospitality of any kind to UNDP staff members including		
Hospitality	recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or		
	invitations to extravagant lunches, dinners or similar. In pursuance of this policy, UNDP: (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; (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.
Conflict of Interest	UNDP requires every prospective Supplier to avoid and prevent conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, specifications, cost estimates, and other information used in this RFQ. Bidders shall 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. Bidders must disclose in their Bid their knowledge of the following: 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 RFQ.
	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 RFQ, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Bid.
General	Any Purchase Order or contract that will be issued as a result of this RFQ shall be subject to the General
Conditions of	Conditions of Contract
Contract	Select the applicable GTC:
	General Terms and Conditions for Works
	Applicable Terms and Conditions and other provisions are available at UNDP/How-we-buy
Liquidated	Will be imposed as follows:
Damages	Percentage of contract price per day of delay beyond 60 days after given access to the Site: 0,50%
	Max. number of days of delay is 20, after which UNDP reserves the right to terminate the contract
Eligibility	A vendor who will be engaged by UNDP may not be suspended, debarred, or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization. Vendors are therefore required to disclose to UNDP whether they are subject to any sanction or temporary suspension imposed by these organizations. Failure to do so may result in termination of any contract or PO subsequently issued to the vendor by UNDP.
	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.
	Bidders must have the legal capacity to enter a binding contract with UNDP and to deliver in the country, or through an authorized representative.
Currency of Quotation	Quotations shall be quoted in United States Dollars (USD).
Joint	Not allowed.
Venture, Consortium	

or Association		
Only one Bid	The Bidder shall submit only one Bid.	
	Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:	
	a) they have at least one controlling partner, director or shareholder in common; or b) any one of them receive or have received any direct or indirect subsidy from the other/s; or	
	b) they have the same legal representative for purposes of this RFQ; or	
	c) 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 RFQ process;	
	d) 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	
	e) some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this RFQ process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.	
Duties and taxesArticle II, Section 7, of the Convention on the Privileges and Immunities provides, into United Nations, including UNDP as a subsidiary organ of the General Assembly of the U is exempt from all direct taxes, except charges for public utility services, and is exemp restrictions, duties, and charges of a similar nature in respect of articles imported or official use. All quotations shall be submitted net of any direct taxes and any other ta unless otherwise specified below:		
	All prices must:	
	$oxedsymbol{\boxtimes}$ be exclusive of VAT and other applicable indirect taxes	
	It is the Proposer's responsibility to learn from relevant authorities (Ministry of Treasury and 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 Treasury and Finance's General Communiqués. The Contractor to be selected shall not be entitled to receive any amount over its proposal price in relation to VAT, Special Consumption Tax and any other applicable taxes.	
	UNDP will provide the contractor a VAT exemption certificate covering the subject procurement.	
Language of quotation	English	
Previous	Minimum three years of experience in the Construction Field.	
Experience	In order to be considered qualified, the Bidder must have successfully completed, as the prime contractor, minimum one civil works contract of similar nature (i.e. construction of any kind of buildings) at minimum contract amount of USD 25,000 over the last three years counting back from the bid submission deadline . Bidders shall substantiate the claimed experiences by presenting copies of Satisfactory Work Completion Certificates from Clients demonstrating nature and value of the civil work successfully completed. Work Completion Certificate shall include following information at minimum:	

	-Project name & Country of Assignment
	-Client & Reference Contact Details
	-Contract Value (in USD equivalent)
	-Period (dates) of activity and status
	-Types of activities undertaken
	UNDP reserves the right to request submission of originals of all proof documents (such as contracts, invoices, acceptance reports etc.) as well as further information/documentation from both the bidder and its clients.
Bid security	Not required.
Performance Security	The successful bidder will be asked to provide a performance security of 10% of the contract price at the signing of the contract. This security must be provided no later than 15 days after the bidder receives the award letter by the UNDP. If the selected bidder fails to provide such a security within this period, the contract will be void and a new contract may be drawn up and sent to the tenderer which has submitted the next cheapest compliant tender.
	The Performance Security must be issued by an accredited bank, in the format included in Appendix I to UNDP General Conditions of Contract for Civil Works and must be valid up to twenty-eight days after issuance of the Certificate of Final Completion. The Performance Security will only be released upon the issuance of Certificate of Final Completion in accordance with the Clause 10 of the UNDP General Conditions of Contract for Civil Works.
Documents	Bidders shall include the following documents in their quotation:
to be submitted	 Annex 2: Quotation Submission Form duly completed and signed Annex 3: Technical and Financial Offer duly completed and signed and in accordance with the Schedule of Requirements in Annex 1 Trade Registry Gazette showing the establishment and shareholder structure of the company; Valid Chamber of Commerce Registration Certificate (Original documents may be requested by UNDP and shall be presented when requested) Copy of Signature Circular/Power of Attorney (Original documents may be requested by UNDP and shall be presented when requested) Work Completion certificate(s) demonstrating previous experience CVs and Diploma of proposed Key personnel Signed and Stamped copy of ANNEX 4- General Terms and Conditions for Contracts
Quotation validity period	Quotations shall remain valid for 90 days from the deadline for the Submission of Quotation.
Price variation	No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted at any time during the validity of the quotation after the quotation has been received.
Partial Quotes	⊠ Not permitted
Alternative Quotes	⊠ Not permitted

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. Unless the technical specifications or the Bill of Quantities specifically and expressly state otherwise, only permanent works are to be measured and paid for by UNDP. The Contractor shall submit the invoice (reflecting the work performed and materials utilized as accepted by UNDP through the "Final Report"). UNDP shall effect payment of the invoices after receipt of the certificate of payment issued by the Engineer, approving the amount contained in the report and the invoice. The Engineer may make corrections to that amount, in which case UNDP may effect payment for the corrected amount. The Engineer may also withhold invoices if the work is not performed at any time in accordance with the terms of the Contract or if the necessary insurance policies or performance security are not valid and/or in order. The Engineer shall process the invoice submitted by the Contractor within 15 days of their receipt. Invoice will be paid within thirty (30) days of the date of their receipt and acceptance by UNDP. Payment shall be released after substantial completion of all works within the scope of the Contract. No advance, interim or partial payment will be made to the Contractor.
	Currency of Payment:
	If the Contractor is registered and operating 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 valid on the date of money transfer. Otherwise, the payments shall be affected in United States Dollar.
	Please refer to <u>https://treasury.un.org/operationalrates/OperationalRates.php</u> for UN Exchange Rate information
Conditions for Release of Payment	⊠ Written Acceptance of Works by the Engineer, based on full compliance with RFQ requirements
Contact	E-mail address: tr.procurement@undp.org
corresponde	Att: Mr. Tunç Gürdal, Procurement Officer
nce, notifications and clarifications	Any delay in UNDP's response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.
Clarifications	Requests for clarification from bidders will not be accepted any later than 3 days before the submission deadline.
Evaluation method	⊠The Contract will be awarded to the lowest price substantially compliant offer
Evaluation	EFull compliance with all requirements as specified in Annex 1
criteria	⊠Full acceptance of the General Conditions of Contract
Right not to accept any quotation	UNDP is not bound to accept any quotation, nor award a contract.

Right to vary requirement at time of award	At the time of award of Contract, UNDP Turkey CO reserves the right to vary (increase or decrease) the quantity of services and/or goods, 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.
Type of Contract to be awarded	⊠ <u>Contract for Works</u>
Maximum expected duration of contract	60 days starting from the date on which the Contractor will be given Access to the Site and receive a notice from the Engineer to commence the Works.
Expected date for contract award.	22 April 2021
Publication of Contract Award	UNDP will publish the contract awards valued at USD 100,000 and more on the websites of the CO and the corporate UNDP Web site.
Policies and procedures	This RFQ is conducted in accordance with <u>UNDP Programme and Operations Policies and Procedures</u>
UNGM registration	Any Contract resulting from this RFQ exercise will be subject to the supplier being registered at the appropriate level on the United Nations Global Marketplace (UNGM) website at <u>www.ungm.org</u> . The Bidder may still submit a quotation 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.
Site Visit	Bidders are encouraged to visit the site and familiarize themselves with the existing conditions of the building prior to submitting their offer. UNDP shall not make any arrangements for a site visit. For bidders who would like to be informed about the location of the site, or visit the site at their own expense, the address is given below: Mersin Halk Eğitimi Merkezi ve Akşam Sanat Okulu, İhsaniye Mah. Sait Çiftçi Cad. No: 37 Akdeniz, Mersin.
	It is the bidders' responsibility to consider Covid-19 related risks in the case they visit the locations of the sites mentioned above. UNDP is not responsible for any Covid-19 related events and health issues that may arise during and after the site visits.
Covid 19 Specific Measures	The Contractors shall review all local regulations, as well as that of UN and UNDP concerning the measures they must take during performance of the contract in the context of COVID-19, before they submit their bids and factor relevant costs, if any, to their bids. The Contractor shall take all measures against COVID-19 imposed by local regulations as well as by UN and UNDP during performance of the contract to protect health and social rights of its own personnel, as well as UNDP personnel, Project Stakeholders and third parties. Pursuant to "Clause 12- Indemnification" of UNDP General Terms and Conditions for Contracts*, the Contractor shall indemnify, defend, and hold and save harmless, UNDP, and its officials, agents and employees, from and against all suits, proceedings, claims, demands, losses and liability of any kind or nature brought by any third party against UNDP, including, but not limited to, all litigation costs and expenses, attorney's fees, settlement payments and damages, based on, arising from, or relating to COVID-19 measures that must be taken by the Contractor in the context

	of the contract. UNDP shall not be held accountable for any Covid-19 related health risks or events that are caused by negligence of the Contractor and/or any other third party.	
Contingency and variations	The contingency allowance to manage variations for the unforeseen and unknown additional components of Works within the overall general scope is maximum 15% of the contract price. However, it shall only be accessed by the Contractor upon the approval by the Engineer, who will obtain prior approval from UNDP as the Employer.	
	The project engineer (employer's representative) may use this contingency with no additional procurement process to manage variations with the approval of UNDP. Any variation that utilizes the contingency but is not covered by rates in the BOQ or schedule of rates shall be subject to a value for money analysis by the Engineer and UNDP.	
	The contingency allowance shall not be used to compensate the Contractor for its fault to include required items in the Bill of Quantities as per Schedule of Requirements/Technical Specifications or unreasonably low unit prices of one or more of the items included in the submitted Bill of Quantities.	
Insurance of work	For all risks stipulated by Clause 21 of UNDP General Conditions of Contract for Civil Works for the 110 % of the total estimated price of the Contract.	
Liability Insurance	Minimum amount of liability insurance (Clause 23 of UNDP General Conditions of Contract for Civil Works) is 15% of the total estimated price of the Contract.	

ANNEX 1: SCHEDULE OF REQUIREMENTS

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.

UNDP supports the Government of Turkey 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 **Error! Reference source not found.**

1.2. DEFINITION AND SCOPE OF THE CONTRACT

1.2.1.Definition

This contract comprises; Error! Reference source not found..

1.2.2.Scope of Works

Scope of works basically includes sandwich panel façade works, insulation works, construction of a peripheral tie beam, installation of doors and windows, flooring works, partitioning wall (drywall) works, finishing works, electrical and mechanical installations for the existing structural steel frame with roof covering.

The structure shall function as a Renewable Energy Workshop consisting of a main workshop and classrooms where both theoretical and practical trainings shall take place. With this respect, it must be noted that any complimentary and/or minor works associated with details necessary for the proper functioning of the resulting building that should be foreseen by an experienced contractor are deemed to be included within the scope of works, even though they are not shown in drawings/details or explicitly noted within this Schedule of Requirements.

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),

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"¹
- 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

1.4. SITE

Please 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

Site is located in Akdeniz district of Mersin Province, within the premises of Mersin Halk Eğitim Merkezi ve Akşam Sanat Okulu on Island 536, Parcel 286, at the address, İhsaniye Mah. Sait Çiftçi Cad. No: 37 Akdeniz, Mersin. Building subject to this works is currently a single-storey steel structure framing with a sandwich panel roofing and a concrete flooring.

As there is currently other buildings and trees closely adjacent to the subject frame structure where construction works shall be carried out, Contractor shall take all measures and provide all means to avoid any damage to surrounding buildings and existing trees.

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, as appropriate.

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.

1.4.3. Site Temporary Buildings

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

1.4.4. 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.

1.4.5. Temporary Electricity 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.

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.

1.4.5.1. 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.

¹Applicable 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

 [&]quot;Communique related to making amendmends 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: <u>http://www.resmigazete.gov.tr/main.aspx?home=http://www.resmigazete.gov.tr/eskiler/2011/02/20110221.htm&</u> <u>main=http://www.resmigazete.gov.tr/eskiler/2011/02/20110221.htm</u>

 [&]quot;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

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. 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.

1.4.5.2. 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.

1.4.5.3. Temporary Project Sign Board

The Contractor shall, at his own cost, supply, erect and maintain 1 signboard (size 1.5 m x 2 m) of which location and content must be determined by the Engineer. The design of the sign board itself also requires the prior approval of the Engineer and the Employer.

1.4.5.4. 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 and reinstated. Fences, billboards, etc. that have been removed temporarily shall be reinstated.

1.4.5.5. 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 Contractor's own 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, occupiers, or public.

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 watertight.

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 and recorded.

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: Minimum 5 years of experience in structural steel and façade work and university degree (B.Sc. as a minimum) in Civil Engineering. Project Manager/Construction Manager shall be

present on site on a full-time basis for the period starting from the date on which the Contractor will be given Access to the Site and receive a notice from the Engineer to commence the Works and ending on the date of substantial completion of Works stated in the Certificate of Substantial Completion.

Electrical Engineer: Minimum 5 years of experience in renovation and/or construction of any kind of structure, and university degree (B.Sc. as a minimum) in Electrical Engineering.

1.6. MATERIALS

1.6.1. Conditions for Materials and Equipment

Materials and equipment within the scope of the Work shall comply with the conditions stated in this Schedule of Requirement and Specific Technical Specifications provided in work item definitions. 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.

1.6.2. 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.

1.6.3. 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 Site and to be protected against damage.

Materials and equipment shall be loaded on vehicles conforming 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.

1.7. 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.

1.7.1. 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 surveyors.
- Use modern type and high-precision topography devices suitable for the works.

1.8. ACCOMODATION FOR THE ENGINEER

Before commencing the Contract, the Contractor shall supply and erect on the site an office of a minimum 10 m2 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. The electricity, water supply, and maintenance costs of this office shall be met by the Contractor(s) until substantial completion of the Works.

Material	Quantity
Desk	1
Chair	1
Guest Chair	2

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

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.

1.9. COORDINATION

The Contractor is responsible for ensuring all coordination necessary for the execution of the works 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

1.10. OBTAINING OF RELEVANT APPROVALS AND CERTIFICATES

The Contractor shall obtain all relevant approvals, permits, 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 and shall be borne by the Contractor.

1.11. 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, as applicable. 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 following 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 to the Engineer for approval, as the Works are completed.

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
- Specific operation instructions
- Specific maintenance instructions
- Detailed record of all types of tests

All materials, as-built drawings, final finish schedules and plans, and all warranties, guarantees and certifications that are within Contractor's responsibility shall be submitted to the Engineer 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 as appropriate) 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".

In addition to the above drawings, Contractor shall also prepare and submit detail/plan/section drawings as might be requested by the Engineer for measurement and verification of the completed amount of any work item.

1.12. IMPLEMENTING PARTNER AND FINAL BENEFICIARY

The Contractor shall establish coordination with implementing partner of the project, namely the **Ministry of National Education, Directorate General for Life-Long Learning**. If deemed necessary by Employer, the representatives of implementing partner and final beneficiary may participate meetings, tests on completion, acceptance and inspection of materials and equipment etc. Representatives of the implementing partner and final beneficiary have right to access to site to monitor the progress of work, compliancy of the work to the requirements of the contract. The Contractor shall ensure their access to site at any time requested by them. However, they have no legal authority in terms of contract terms and conditions.

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 this Schedule of Requirements.

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 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 agreed 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,

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 conducted through the Contractor's Project 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 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 UNDP 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) Quality Control and Quality Assurance Plan

b) Safety Management Plan

In coordination 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 started after the approval of the method statements by the Engineer.

2.1.7. 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 to 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, achievements, 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 regarding dates for the submission of monthly Progress Reports. Unless agreed otherwise, these reports shall be submitted no later than 7 calendar 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.

In addition to the above, Contractor shall prepare and submit an **Observations and Findings Report** to the Engineer within 10 days after commencement of works. This report must provide details of the works that are, in the opinion of the Contractor, required to ensure full and safe functioning of the building. This report can in

no way be considered as a base for any variation or additional work. With this respect, Bidders' attention is also drawn to Article 20, paragraph (b) of UNDP General Conditions of Contract for Civil Works.

2.1.8. Meetings

2.1.8.1. Progress Meetings

Progress meetings will be held at the times indicated on the schedule (at least monthly, 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.

The Contractor shall prepare and produce the minutes of the meetings. 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 supervision of the Engineer.

2.1.8.2. Weekly Site Meetings

Site Meetings 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. Site meetings may be held to formalize important technical discussions, generally prior to the Progress Meetings and record information and recommendations arising from these discussions.

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

The agenda of site meetings shall be determined by the Engineer and the Contractor together. In addition to the Engineer, the Employer, and the Contractor, site meetings can also be attended by supply companies, manufacturer companies, subcontractors and other institutions and organizations related to the works as necessary.

Meeting minutes shall be recorded by the Contractor, kept carefully and these shall be distributed as minutes of site meetings to the Employer and the Engineer, participants and 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 to the Employer for consideration at the next Progress Meeting. All of these proceedings pertaining to site meetings shall be conducted by the Contractor under the supervision of the Engineer.

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

2.1.9. Sub- Contractor Involvement

Except for cases where subcontracting is not allowed, it is the responsibility of the Contractor that all subcontractors 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.

As part of 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
- 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.

Obtaining approval of the Engineer for subcontractor(s) is a pre-condition of payment for works conducted 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-contractors 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:

- façade
- interior
- •finishes
- •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 neighbouring environment. All expenses including indemnities that might arise are the responsibility of the Contractor.

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, additional specific 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 the 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 cannot 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 coloured 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

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 evidence 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 14 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 issues specific instructions for certain works. 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 until 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 as applicable. For the tests that cannot be done in such a manner, an independent laboratory that is approved by the Engineer shall be employed 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 practically 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 that might be instructed by the Engineer immediately. In case of a safety concern, Contractor shall immediately initiate any measures he/she might consider suitable and inform the Engineer in writing of the nature and method of such measures. In case such measures are rejected by the Engineer, Contractor shall suspend any such activities and conduct reinstatement works.

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 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 as part of Quality Control Plan.

All of the test certificates and examination records shall be subdivided into their relevant departments and kept and recorded. 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, save 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

The Contractor shall comply with the provisions of the applicable Turkish legislation on environment protection that may affect the Project (the "Environmental Requirements").

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.

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. PARTICULAR TECHNICAL SPECIFICATIONS FOR CIVIL AND ARCHITECTURAL WORKS

All goods and materials used in the Works shall comply with international standards (EN, BS or ISO) or those of the appropriate national standards where no other standard is given, for both manufacturing and testing. Where no comment is made against an item, the Contractor shall assume that these standards are to be complied with.

All goods and materials to be provided by the Contractor and incorporated in the Works shall be new, unused, and of the most recent or current design and specification, and incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

The Contractor shall submit to the Engineer a list of his proposed suppliers and sources of materials required for the execution of the Works. Samples shall also be submitted at the request of the Engineer, as practically applicable. The Contractor shall obtain written approval of the Engineer prior to use of the materials.

The materials subsequently supplied shall conform to the quality of samples which have been inspected by the Engineer.

Names of additional suppliers and sources may be submitted by the Contractor during the execution of the Contract, but no source of supply shall be changed without Engineer's approval.

Materials and components shall be stored in such a manner as to preserve their quality and condition to the standards required by the Contract.

Materials and components shall be handled in such a manner as to avoid any damage or contamination, and in accordance with all applicable recommendations of the manufacturers.

Unless otherwise described in the Contract, the use, installation, application or fixing of materials and components shall be in accordance with all applicable recommendations of the manufacturers. Where appropriate, the Contractor shall make use of any technical advisory services offered by manufacturers.

Please be informed that that Turkish version of the specifications is given for reference purpose only. In case of an inconsistency between Turkish and English versions, English version shall prevail.

FE.1 - Sandwich panel façade works / Sandviç panel cephe işleri

This item covers provision and installation of façade sandwich panels with outer sheet thickness of 0.45mm, 5cm thick core, and inner sheet thickness of 0.35mm. Sandwich panels shall conform with TS EN 14509 and shall

have a U (Heat Transfer Coefficient) value of maximum 0.73 W/m²K, and a R (Thermal Resistance) value of minimum 1.36 m²K/W. Sandwich panels shall have fire Class E as per TS EN 13501-1.

Panels shall have hidden clamping system to ensure panels are interlocked with each other during installation. All flashings necessary for transition, finish, insulation and similar, and provision, installation, and antirust paint of metal profiles with sufficient section and thickness with adequate spacing to ensure structural safety of the façade are also included in this item.

Existing panels on the façade below roofing shall be removed without damaging the panels, sorted, and disposed to a location that shall be decided by the Engineer.

Measurement:

Area of the finished façade covering shall be measured in square meters (m2) as per drawings.

Bu iş kalemi, dış sac kalınlığı 0,45 mm, 5 cm kalınlığında yalıtım ve 0,35 mm iç sac kalınlığına sahip cephe sandviç panellerinin temini ve montajını kapsar. Sandviç paneller TS EN 14509'a uygun, U (Isı Transfer Katsayısı) değeri maksimum 0,73 W/m²K ve R (Isıl Direnç) değeri minimum 1,36 m²K/W olacaktır.

Sandviç paneller TS EN 13501-1'e göre yangın Sınıfı E olacaktır.

Paneller, montaj sırasında panellerin birbirine kenetlenmesini sağlamak için gizli kenetleme sistemine sahip olacaktır. Geçiş, bitiş, yalıtım ve benzerleri için gerekli tüm flashing ve aksesuarlar ile cephenin yapısal güvenliğini sağlamak için yeterli aralıklarla yeterli kesite ve kalınlığa sahip metal profillerin sağlanması, montajı ve antipas ile boyanması da bu iş kalemine dahildir.

Çatı kaplamasının hemen altındaki mevcut cephe panelleri panellere zarar vermeden sökülüp istiflenerek Mühendis'in göstereceği yere taşınacaktır.

<u>Ölçüm:</u>

Bitmiş cephe kaplamasının alanı çizimlere göre metrekare (m2) olarak ölçülecektir.

FE.2 – Formwork / Kalıp İşleri

Item includes making plain surface concrete formwork from plywood artificial wood with minimum 21mm thickness where the inside surface of the formwork shall be lubricated. Formworks shall be supported to resist against the vibration and other forces during construction. Item also covers removal of formwork after setting of the concrete. Plywood material shall conform with TS EN 636:2012+A1. All kinds of material and wastes (including those required to properly support the plywood), workmanship, horizontal/vertical transportations on site, loading/unloading are included in this unit price.

At least 2cm rebar cover shall be provided at each surface of the formwork and no rebar shall be in touch with the formwork surface. Contractor shall take all necessary measures to avoid any leakage of concrete out of the formwork. Formwork shall not be removed until the concrete is set.

Measurement:

Formed concrete surface area shall be measured in square meters (m2) on related application/shop drawings.

Bu iş kalemi, minimum 21 mm kalınlığında kontrplak (plywood) suni ahşaptan düz yüzey beton kalıp yapılmasını ve beton prizini aldıktan sonra kalıbın sökülmesini içerir. Kalıbın iç yüzeyi uygulama öncesi yağlanacak ve yapım sırasında titreşime ve diğer kuvvetlere dayanacak şekilde kalıplar desteklenecektir. Kalıp yapımında kullanılacak plywood malzemesi TS EN 636: 2012 + A1'e uygun olacaktır. Kalıbın her yüzeyinde en az 2 cm'lik donatı örtüsü sağlanacak ve kalıp yüzeyiyle hiçbir donatı teması olmayacaktır. Yüklenici, betonun kalıptan dışarı sızmasını önlemek için gerekli tüm önlemleri alacaktır. Beton sertleşene kadar kalıp kaldırılmayacaktır.

Her türlü malzeme ve atık (kontrplağı uygun şekilde desteklemek için gerekli olanlar dahil), bu birim fiyata dahildir.

Ölçüm:

Oluşturulan beton yüzey alanı, ilgili uygulama çizimlerinden metrekare (m2) olarak ölçülecektir.

FE.3 – Concrete (C 20/25) / Beton İşleri (C 20/25)

Item covers provision and placing of Class 20/25 concrete including controlling the quality, loading to trans mixers, transportation till the site, pumping to the pouring point with concrete pump, placing, compacting with vibrator, irrigating, protection from weather and other conditions, maintenance of the concrete produced in a complete concrete facility (minimum 60m3/h capacity, computer controlled with 4 compartment aggregate bin, compressor and control box, conveyor belt system with minimum 50 tons capacity cement silo, recycle unit, laboratory suitable for aggregate and concrete experiments, generator, enough quantity of trans mixer with mobile concrete pump and at least one loader, additive tank, additive weight bunker, hygrometer and all similar crew and equipment) suitable to produce concrete, conforming with standards and project drawings, washed, sifted granulometric sand-gravel and/or ballast, cement, water and additives when needed, in C 20/25 concrete class standards or bought from a facility with the same qualities; taking samples in enough amounts and carrying out necessary compressive and tensile tests as appropriate. Item includes all workmanship, equipment and tools, material and wastes, concrete tests, all kind of loading/unloading, all transportations necessary for the provision of the concrete from the concrete plant and pouring the concrete as described here and in related General Technical Specifications.

Admixture to increase adherence and to provide water insulation shall also be applied to this concrete casting. Admixture shall conform with TS-EN 1504-2.

NOTES

1) Contractor shall obtain all documents which Turkish Standard Institute (TSE) require from the facility where the concrete is produced and submit them to the Engineer prior to production.

2) Price of any additive material is included.

Measurement:

Volume of the poured concrete shall be measured in cubic meters (m3) as per drawings.

Beton üretimine uygun komple beton tesisinde (asgari 60m3/sa kapasiteli, dört gözlü agrega bunkerli kompresörlü ve kumanda kabini ile birlikte bilgisayar kontrollü, min. 50 ton kapasiteli çimento silosu bulunan konveyör bant sistemli, geri kazanım ünitesi, agrega ve beton deneylerini yapabilecek kapasitede laboratuar, jeneratör, yeteri kadar transmikser ve mobil beton pompası ile en az bir adet yükleyici, katkı tankı ve katkı tartı bunkeri, nem ölçer ve benzeri her türlü ekip ve ekipmana sahip periyodik kalibrasyonu yapılmış beton üretim tesisi) standardına ve projesine uygun, yıkanmış, elenmiş granülometrik kum-çakıl ve/veya kırmataş, çimento, su ve gerektiğinde katkı malzemesi ile C 20/25 sınıfında üretilen veya bu niteliklere sahip beton tesisinden satın alınan hazır beton harcınır; beton kalite kontrollerinin yapılması, transmikserlere yüklenmesi, işyerine kadar nakli, döküm yerine beton pompası ile basılması, yerleştirilmesi, vibratör ile sıkıştırılması, sulanması, soğuktan, sıcaktan ve diğer dış tesirlerden korunması ve bakımının yapılması, gerekli ve yeter sayıda deney için numune alınması ve gerekli deneylerin yapılması, için gerekli her türlü işçilik, malzeme ve zayiatı, makine araç, gereç ve laboratuar giderleri, işyerindeki her türlü yatay ve düşey taşımalar, yükleme ve boşaltmalar, beton bünyesine giren granülometrik kum çakıl veya kırmataşın ve çimentonun temin edildiği, üretildiği veya satın alındığı yerden taşıtlara yüklenmesi, beton tesisine nakli, taşıtlardan boşaltılması, istifi, beton tesisine konulması, beton bünyesinde ve sulama için kullanılan suyun temini ve nakli, beton tesisi ve diğer tüm ekipmanların temini ve amortisman giderleri ile her türlü diğer giderler ve müteahhit genel giderleri ve kârı dâhil, yerinde dökülmüş ve basınç dayanımı C 20/25 olan gri renkte, normal hazır beton.

<u>Bu beton imalatı mevcut düz zemin üzerine yapılacağı için, uygulamada aderans arttırıcı ve su geçirimsizliği</u> sağlayan, TS-EN 1504-2 standardına uygun katkı maddesi kullanılacaktır.

NOTLAR

 Yüklenici, Türk Standartları Enstitüsü'nün (TSE) talep ettiği tüm belgeleri betonun üretildiği tesisten temin edecek ve üretimden önce Mühendise teslim edecektir.
 Herhangi bir katkı malzemesinin fiyatı dahildir.

Ölçüm:

Dökülen betonun hacmi çizimlere göre metreküp (m3) olarak ölçülecektir.

FE.4 – Rebars / Demir İşleri

Provision of structural steel bars on site with diameter of 8-14mm having a tensile strength of at least 420 MPa (B 420C), cutting and bending works on site according to the reinforcement drawings and bar cutting/bending schedules, placement in formworks, fastening them properly with steel wires, providing cover by placing props on formworks. Steel bars shall conform with TS 708. Item includes all workmanship, equipment and tools, material and wastes, necessary tests, all kind of loading/unloading, and all transportations necessary for the provision of the reinforcement bars and placing them in their final locations in formworks as described here.

Measurement:

Weight of the installed bars is measured in tons as per bar cutting/bending schedules on related shop drawings. Unit weight of reinforcement bars to be used for calculation are as follows:

Diameter (mm)	Unit Weight (kg/m)
8	0.395
10	0.617
12	0.888
14	1.208
16	1.578
18	1.998
20	2.466
22	2.984
24	3.551
26	4.168
28	4.834

En az 420 MPa (B 420C) gerilme mukavemetine sahip 8-14 mm çapında yapısal çelik çubukların şantiyede temini, donatı çizimlerine ve çubuk kesme / bükme programlarına göre şantiyede kesme ve bükme işleri, kalıplara yerleştirme, sabitleme bunları çelik tellerle düzgün bir şekilde, kalıplara destek yerleştirerek kapak sağlar. Çelik çubuklar TS 708'e uygun olacaktır. Tüm işçilik, teçhizat ve aletler, malzeme ve atıkları, gerekli testleri, her türlü yükleme / boşaltmayı ve donatı çubuklarının temini ve son yerlerine yerleştirilmesi için gerekli tüm taşımaları içerir. burada açıklandığı gibi kalıplar.

Ölçüm:

Nervürlü demirlerin ağırlığı, ilgili imalat çizimlerine göre ton cinsinden ölçülür. Ölçüm için yukarıda verilen çap ve ağırlık tablosu kullanılacaktır.

FE.5 – Aluminium Door (K2) 250x300cm / Dış Kapı Alüminyum doğrama (K2) 250X300cm

Item covers manufacturing and installation of custom made aluminium exterior doors for the workshop as shown in drawings. Thickness of the aluminium profiles shall be minimum 4mm and the door frame shall be 4cm. Aluminium door shall have electrostatic powder coating.

Item includes all hinges, fixes, anchors, door locks, handles and other secondary work such as insulation and finishes required for the installation and proper functioning of the doors.

Measurement:

Number of doors as complete shall be measured as pieces (NOs). Number of door leaves shall not be taken into consideration.

Çizimlerde gösterildiği gibi atölye için özel yapım alüminyum dış kapı imalat ve montajı yapılacaktır. Alüminyum profillerin kalınlığı minimum 4mm, kapı kasası 4cm olacaktır. Alüminyum kapı elektrostatik toz boyalı olacaktır.

İş kalemi kapıların montajı ve düzgün çalışması için gereken tüm menteşeleri, bağlantıları, ankrajları, kapı kilitlerini, kolları ve yalıtım ve kaplamalar gibi diğer ikincil işleri içerir.

Ölçüm:

Bütün kapı 1 adet (NO) olarak değerlendirilecek olup kapı kanadı sayısı dikkate alınmayacaktır.

FE.6 – Sliding PVC Windows 80x200cm / Sürgülü PVC Pencere 80X200 cm

Windows must be sliding type. All metal profiles must conform with TS 5358 EN 12608 and must be Class A. Windows must be double-glazing with a minimum total thickness of 16mm (3+10+3) and shall bear CE marking. Joinery thermal conductivity coefficient should not be more than 2.4 w/m²K as per to TS 825. Handles must conform with TS EN 1906.

Measurement:

Number of windows as complete shall be measured as pieces (NOs).

Pencereler sürgülü tipte olmalıdır. Tüm metal profiller TS 5358 EN 12608'e uygun olmalı ve Sınıf A olmalıdır. Pencereler minimum 16mm (3+10+3) kalınlığında çift camlı olmalı ve CE işareti taşımalıdır. Doğrama ısıl iletkenlik katsayısı TS 825'e göre 2,4 w/m²K'dan fazla olmamalıdır. Pencere kolları TS EN 1906'ya uygun olmalıdır.

Ölçüm:

Belirtilen ölçülere sahip tam pencere sayısı, parça (NO) olarak ölçülecektir.

IN.1 Partition Walls for Classrooms / Derslikler için Bölme Duvar

New sections of gypsum board panel walls as indicated on the drawings shall be constructed with gypsum board and galvanized steel profiles as part of system. The new partitions shall be soundly connected and secured as necessary to the existing parts of the structure.

Double layers of gypsum board panels of 12.5mm thickness shall be secured to galvanized profiles as required for the wall thickness and height as indicated on related drawings. Sound insulation level of dB=52 and fire

resistance of 60 minutes shall be provided. 60 mm rock wool will be placed after the first layer of gypsum board on one side and covered with single layer on the other. Second layers of gypsum board panels shall be laid after providing extra galvanized steel screw connections between the two boards to hold the rock wool in place. The outer corners of the wall will be reinforced with galvanised corner profiles. Panel walls should be plumb, level, and true to line. Contractor shall provide and install all types of supports, anchors, and reinforcing to ensure solid, stable construction.

Joints of panels shall be bridged with reinforcing joint tape and finished with joint finisher according to manufacturer's instructions, sanded and the whole surface will be ready for painting.

12.5mm thick gypsum boards to comply with TS EN 520 +A1

Measurement:

The gypsum board panel walls shall be measured in square meters (m2) on the front elevation. All profiles, anchorage, connections, and accessories are included.

Alçıpan panel duvarlar, sistem dahilinde alçıpan ve galvaniz çelik profiller ile çizimlerde belirtilen şekilde yapılacaktır. Yeni bölmeler, yapının mevcut kısımlarına gerektiği şekilde sağlam bir şekilde bağlanacak ve sabitlenecektir.

12,5 mm kalınlığındaki çift kat alçı levha paneller, ilgili çizimlerde belirtildiği gibi et kalınlığı ve yüksekliği için gerekli olduğu şekilde galvaniz profillere sabitlenecektir. dB=52 ses yalıtım seviyesi ve 60 dakikalık yangına dayanıklılık sağlanacaktır. Bir tarafa ilk kat alçıpandan sonra 60 mm taş yünü konulur, diğer tarafa tek kat kaplanacaktır. Taş yününün yerinde tutulması için iki levha arasına ekstra galvaniz çelik vida bağlantıları yapıldıktan sonra ikinci kat alçı levha paneller döşenecektir. Duvar dış köşeleri galvaniz köşe profilleri ile güçlendirilecektir. Panel duvarları düz, düz ve aynı hizada olmalıdır. Yüklenici, sağlam bir yapı sağlamak için her tür destek, ankraj ve takviye sağlayacak ve monte edecektir.

Panellerin birleşim yerleri, takviye derz bandı ile köprülenecek ve imalatçının talimatlarına göre derz bitirici ile tamamlanacak, zımparalanacak ve tüm yüzey boyamaya hazır hale getirilecektir.

Alçı levhalar TS EN 520 + A1'e uygun ve 12,5 mm kalınlığında olacaktır.

Ölçüm:

Alçıpan panel duvarlar tek yüzde metrekare (m2) olarak ölçülecektir. Tüm profiller, ankraj, bağlantılar ve aksesuarlar işin kapsamına dahildir.

IN.2 Partition Walls for Toilets / Tuvaletler için Bölme Duvar

New sections of gypsum board panel walls as indicated on the drawings shall be constructed with gypsum board and galvanized steel profiles as part of system. The new partitions shall be soundly connected and secured as necessary to the existing parts of the structure.

Double layers of gypsum board panels of 12.5mm thickness shall be secured to galvanized profiles as required for the wall thickness and height as indicated on related drawings. The outer corners of the wall will be reinforced with galvanised corner profiles. Panel walls should be plumb, level, and true to line. Contractor shall provide and install all types of supports, anchors, and reinforcing to ensure solid, stable construction.

Joints of panels shall be bridged with reinforcing joint tape and finished with joint finisher according to manufacturer's instructions, sanded and the whole surface will be ready for painting.

12.5mm thick gypsum boards shall comply with TS EN 520+A1 and shall be suitable for use in wet areas.

Measurement:

The gypsum board panel walls shall be measured in square meters (m2) on the front elevation. All profiles, anchorage, connections, and accessories are included.

Alçıpan panel duvarlar, sistem dahilinde alçıpan ve galvaniz çelik profiller ile çizimlerde belirtilen şekilde yapılacaktır. Yeni bölmeler, yapının mevcut kısımlarına gerektiği şekilde sağlam bir şekilde bağlanacak ve sabitlenecektir.

12,5 mm kalınlığındaki çift kat alçı levha paneller, ilgili çizimlerde belirtildiği gibi et kalınlığı ve yüksekliği için gerekli olduğu şekilde galvaniz profillere sabitlenecektir. Duvar dış köşeleri galvaniz köşe profilleri ile güçlendirilecektir. Panel duvarları düz, düz ve aynı hizada olmalıdır. Yüklenici, sağlam bir yapı sağlamak için her tür destek, ankraj ve takviye sağlayacak ve monte edecektir.

Panellerin birleşim yerleri, takviye derz bandı ile köprülenecek ve imalatçının talimatlarına göre derz bitirici ile tamamlanacak, zımparalanacak ve tüm yüzey boyamaya hazır hale getirilecektir.

Alçı levhalar TS EN 520 + A1'e uygun, 12,5 mm kalınlığında ve ıslak hacimlerde kullanıma uygun olacaktır.

<u>Ölçüm:</u>

Alçıpan panel duvarlar tek yüzde metrekare (m2) olarak ölçülecektir. Tüm profiller, ankraj, bağlantılar ve aksesuarlar işin kapsamına dahildir.

IN.3 Gypsum Panel Wall Covering / Giydirme Duvar

This item covers construction of gypsum panel wall covering (single side) for the inner face of the façade sandwich panels as shown on drawings. Ceiling U-profiles (TU28) will be fixed to the floor and ceiling at 60 cm intervals using screws and plastic dowels. Ceiling C-profile (TC60) will be cut, 50mm sound insulation tape is affixed under TU28 profiles and 12cm brackets before fixing, the brackets will be fixed to the existing wall or carrier profiles with screws and plastic dowels at maximum 125 cm intervals vertically with 60 cm intervals horizontally. The hook wings will be adjusted by bending according to the cladding wall position, TC60 profiles will be placed between the two wings of the brackets and passed between the TU28 profiles. Hangers will be fixed to 50 profiles with 25 mm self taping screws. When necessary, the gypsum wall board will be cut to size, prefiling will be made in gaps more than 3 mm with joint filler plaster, screw heads will be covered with joint filler plaster. The lining wall will be completed by affixing the joint tape to the joints of the gypsum wall board and applying joint filler plaster on the tape.

12.5mm thick gypsum boards shall comply with TS EN 520+A1 and shall be suitable for use in wet areas for toilet locations.

Measurement:

The gypsum board panel walls cover shall be measured in square meters (m2). All profiles, anchorage, connections, and accessories are included.

Bu iş kalemi uygulanacak sanviç panel cephe kaplamanın sınıf ve tuvalet içlerinde kalan kısımlarına alçıpaneller ile giydirme duvar yapılması işini kapsamaktadır. Tavan U-profilleri (TU28) vida ve plastik dubel kullanılarak 60 cm aralıklarla taban ve tavana sabitlenecektir. Tavan C-profili (TC60) kesilerek, sabitleme öncesi TU28 profillerinin ve 12cm'lik agrafların altına 50mm'lik ses yalıtım bandı yapıştırılarak, agraflar yatayda 60 cm aralıklarla düşeyde en fazla 125 cm aralıklarla vida ve plastik dubel ile mevcut duvara veya taşıyıcı profillere sabitlenecektir. Agraf kanatları giydirme duvar konumuna göre kıvrılarak ayarlanacak, TC60 profilleri agrafların iki kanadı arasına yerleştirilecek ve TU28 profillerinin arasına geçirilecektir. Agraflar TC60 profillerinin her 2 kanadına agraf vidası ile sabitlenecek, 12,5 mm'lik alçı duvar levhası TU28 ve TC60 profillerine 25 mm'lik borazan vidalarla sabitlenecektir. Gerektiği durumlarda alçı duvar levhası kesilerek ebatlanacak, derz dolgu alçısı ile 3 mm'den fazla boşluklara ön dolgu yapılacak, vida başları derz dolgu alçısıyla kapatılacaktır. Derz bandı alçı duvar levhası ek yerlerine yapıştırılarak bant üzerine derz dolgu alçısı uygulanması suretiyle giydirme duvarı tamamlanacaktır.

Alçı levhalar TS EN 520 + A1'e uygun, 12,5 mm kalınlığında ve tuvalet alanlarında ıslak hacimlerde kullanıma uygun olacaktır.

<u>Ölçüm:</u>

Alçıpan panel duvar kaplamaları metrekare (m2) olarak ölçülecektir. Tüm profiller, ankraj, bağlantılar ve aksesuarlar işin kapsamına dahildir.

IN.4 Epoxy flooring / Epoxy zemin kaplaması

Two part coloured epoxy resin suitable for use in workshops and/or classrooms must be applied. Roller coat for concrete and cement screeds with normal up to medium heavy wear. The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm2) with a minimum pull off strength of 1.5 N/mm2. The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.

Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.

Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed. Repairs to the substrate, filling of blowholes/voids and surface levelling can be carried out using appropriate products from the range of materials. The concrete or screed substrate has to be primed or levelled in order to achieve an even surface. High spots must be removed by e.g. grinding.

All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

Substrate Temperature is +10 C min, +30 C max. Prior to application it shall be thoroughly mixed using a low speed stirrer (300 - 400 rpm) or with other suitable mechanical equipment.

Contractor shall take all measures to protect the applied flooring until it is ready for use.

Epoxy based self-levelling resin shall comply with the following: Particle emission: ISO 14644-1, Class-4 Outgassing emission: ISO 14644-8, Class 6,5 Good biological Resistance: ISO 846 Fire classification: EN 13501-1, Report-Synthetic resin screed material: EN13813:2002 Coating for surface protection of concrete: EN 1504-2:2004

Measurement:

The flooring area shall be measured in square meters (m2).

Sınıflar, atölyeler gibi toplu kullanıma uygun iki bileşenli renkli epoksi zemin kaplaması temin edilip uygulanacaktır. Normalden orta ağırlığa kadar aşınmaya sahip döşeme sınıfı tercih edilecektir. Beton yüzey sağlam ve minimum 1.5 N / mm2 çekme dayanımı ile yeterli basınç dayanımına (minimum 25 N / mm2) sahip olmalıdır. Yüzey temiz, kuru olmalı ve kir, yağ, gres, kaplamalar ve yüzey işlemleri gibi tüm kirleticilerden arındırılmış olmalıdır.

Beton yüzeyler, çimento kalıntılarını (kaymağını) kaldırmak ve açık dokulu bir yüzey elde etmek için aşındırıcı raspa veya kazıma ekipmanı kullanılarak mekanik olarak hazırlanmalıdır.

Zayıf beton temizlenmeli ve hava delikleri ve boşluklar gibi yüzey kusurları tamamen açığa çıkarılmalıdır. Alt tabakanın onarımları, hava deliklerinin / boşlukların doldurulması ve yüzey tesviyesi, çeşitli malzemelerden uygun ürünler kullanılarak gerçekleştirilebilir. Düz bir yüzey elde etmek için beton veya şap alt tabaka astarlanmalı veya tesviye edilmelidir. Yükseltiler zımpara ile ya da kırılarak zeminin kalanıyla uyumlu hale getirilmelidir.

Tüm toz, gevşek ve ufalanabilir malzeme, ürünün uygulanmasından önce tercihen fırça ve/veya vakumla tüm yüzeylerden tamamen temizlenmelidir.

Yüzey Sıcaklığı +10 C min, +30 C max. Uygulamadan önce, düşük devirli bir karıştırıcı (300 - 400 rpm) veya diğer uygun mekanik ekipmanla iyice karıştırılmalıdır.

Yüklenici, uygulama alanını kullanıma hazır hale gelinceye kadar korumak için gerekli her türlü önlemi alacaktır.

Epoksi esaslı kendiliğinden yayılan reçine aşağıdakilere uygun olacaktır: Partikül emisyonu: ISO 14644-1, Sınıf-4 Gaz çıkışı emisyonu: ISO 14644-8, Sınıf 6,5 İyi biyolojik Direnç: ISO 846 Yangın sınıflandırması: EN 13501-1, Rapor-Sentetik reçine şap malzemesi: EN13813: 2002 Beton yüzey koruması için kaplama: EN 1504-2: 2004

<u>Ölçüm:</u> Döşeme alanı metrekare (m2) olarak ölçülecektir.

IN.5 Classroom Doors (K1) 90x210cm / Derslik Kapıları (K1) 90X210cm

This item covers provision and installation of American panel doors where the door is madeof made of white pine wood with a clean thickness of at least 42 mm, at least 32 mm thick, and a 4 mm wood fiber board (MDF) for the supply of the inner door wing made by pressing, covering both sides of the laminate including nails, screws, glue and all kinds of materials and losses, workmanship. Door handles, rosettes, necessary locks, hinges will also be provided with the door.

Measurement:

Number of doors shall be measured in pieces (NOs).

Bu iş kalemi, çizimlere göre, beyaz çam kerestesinden temizi en az 42 mm kalınlıkta olacak şekilde, temizi en az 32 mm kalınlıkta ve seren başlıklarından yapılan çatkı arasına 32 mm'lik kraft dolgu ile meydana getirilen iskeletin iki yüzüne 4 mm odun lifi levha (MDF) prese etmek suretiyle yapılan iç kapı kanadınının temini, her iki yüzü laminat kaplanması ve yerine takılması için çivi, vida, tutkal ve benzeri her türlü malzeme ve zayiatı, işçilik, işyerinde yükleme, yatay ve düşey taşıma, boşaltma ve madeni aksamların yerine takılması, kapı kanadının yerine takılıp alıştırılmasını kapsamaktadır.

Kapı ile beraber kapı kolları, rozetler, gerekli kilitler, menteşeler de temin edilecektir.

<u>Ölçü:</u> Tamamlanmış kapı bir parça (NOs) olarak ölçülecektir.

IN.6 Toilet Doors (K3) 80x210cm / Tuvalet Kapıları (K3) 80X210cm

Plastic joinery and accessories and glass laths made of rigid PVC profiles should be resistant to all weather conditions and their surfaces should be smooth. The main profile made of PVC (according to the standard with wall thickness class "A" and the wall thickness on visible surfaces should be 2.8 mm, on invisible surfaces should be 2.5 mm). system will. Necessary strength of metal reinforcement profiles and main profiles (frame, wing, middle record) will be provided. Metal reinforcement profiles are U or box profiles made of sheet metal, protected against rust by galvanization, made by hot-dip method. In both cases, the sheet thickness shall not be more than 1.5 mm in the frame and wings, and not more than 2 mm in the middle register. (However, if the moment of inertia is higher than the aforementioned sheet thicknesses as a result of the calculations made on very wide records and sashes, the result should be used in accordance with the result.) Metal reinforced PVC profiles are combined with plastic corner welding, screw, sash binding and other means, and auxiliary joinery profiles, plates and other profiles help All kinds of window joinery, doors, glazing and similar productions are made with. In accordance with the system proposed by the manufacturer, the blade gaps will be insulated with two rows of EPDM rubber, neoprene or tpe gaskets. Mounting of glass of all types and thicknesses is done with the help of glass laths. Glass fixation will be provided by gasket, sealant and other methods in accordance with the system proposed by the manufacturer company. Each window sash frame (joinery) is fixed to the joinery frame with at least 2 (two)) door sash frames with at least 3 (three) hinges. The hinges will have the strength and design to allow the wing to work in an adjusted manner. Plastic joinery case and wing combinations will be cut at 45 degrees and the plastic joinery produced by welding with machines developed for this work will be fixed to the iron construction (door frame). Joinery shall conform with TS EN 12608-1+A1.

Door handles, rosettes, necessary locks, hinges will also be provided with the door.

Measurement:

Number of doors shall be measured in pieces (NOs).

Sert PVC profillerden plastik doğramalar ve aksesuarları ve cam çıtaları her türlü hava şartlarına karşı dayanıklı, yüzeyleri pürüzsüz olmalıdır. PVC den mamul ana profil(Standardına göre et kalınlığı sınıfı "A" olan ve görünür yüzeylerdeki et kalınlığı 2,8 mm,görünmeyen yüzeylerde ise 2,5 mm olmalıdır.) kesitlerinde gerek ısı gerekse ses izolasyonu ve ayrıca su tahliyesini hızlandıracak şekilde tasarlanmış ön odacık sistemi olacaktır. Metal takviye profilleri ile ana profillerin (kasa, kanat, orta kayıt) gerekli mukavemeti sağlanacaktır. Metal takviye profilleri, sıcak daldırma metodu ile yapılmış galvanizle pasa karşı korunmuş, sacdan U veya kutu profillerdir. Her iki halde de sac kalınlığı kasa ve kanatlarda 1,5 mm'den fazla orta kayıtda da 2 mm den fazla olmayacaktır. (Ancak çok geniş kayıt ve kanatlarda yapılan hesaplama sonucu atalet momenti yukarıda belirtilen sac kalınlıklarından yüksek çıkarsa çıkan sonuca uyumlu kalınlıkta sac kullanılmalıdır.) Metal takviyeli PVC profiller plastik köse kaynağı, vida, kanat bağlaması vesair imkanlarla birleştirilerek yardımcı doğrama profilleri, levhalar ve diğer profiller yardımı ile her çeşit pencere doğraması, kapı, camekan ve benzeri imalat yapılır. İmalatçı firmaca önerilen sisteme uygun olarak kanat aralıkları iki sıra EPDM kauçuk, neopren veya tpe contalarla izole edilecektir. Her cins ve kalınlıklardaki camın takılması, cam çıtaları yardımı ile olur. İmalatçı firmaca önerilen sisteme uygun olarak cam tespiti conta, mastik ve diğer usullerle sağlanacaktır. Her pencere kanat çerçevesi (doğraması) doğrama kasasına en az 2 (iki)) kapı kanat çerçevesi ise en az 3 (üç) menteşe ile tespit edilir. Menteşeler kanadın ayarlı çalışmasını sağlayacak mukavemette ve dizaynında olacaktır. Plastik doğrama kasa ve kanat bileşimleri 45 derece kesilerek bu iş için geliştirilmiş makinalarla kaynatılmak suretiyle imalatı yapılan plastik doğramanın demir konstrüksiyona

(kapı kasası) tespiti yapılacaktır. Kapı ile beraber kapı kolları, rozetler, gerekli kilitler, menteşeler de temin edilecektir. Doğrama imalatları TS EN 12608-1+A1 standartlarına uygun olarak yapılacaktır.

Ölçü:

Tamamlanmış kapı bir parça (NOs) olarak ölçülecektir.

IN.7 Disabled Toilet Door (KE) 110x210cm / Engelli Tuvalet Kapısı (KE) 110X210cm

These doors shall conform to the same specification given above for **IN.6 Toilet Doors (K3) 80x210cm**, except for the door dimension and that the fittings and operation of the door must be suitable for the use of disabled.

Bu kapılar yukarıda verilen **IN.6 Tuvalet Kapıları (K3) 80X210cm** şartnamesine ilave olarak engelli kullanımına uygun olarak yapılacak, kapı kolu, kilit ve menteşe sistemi buna uygun olacaktır.

IN.8 Rockwool Modular Suspended Ceiling 60x60 / Taşyünü Modüler Asma Tavan 60x60cm

The suspended ceiling will be made according to the project and in accordance with the sample that will be selected by the Employer. Special "L" profiles made of aluminum or oven-paint galvanized sheet, will be leveled at the desired elevation level and fixed to the surrounding walls and columns, if any, with screws and dowels. The main carrier T-24 profiles will be leveled on the same level with the "L" profiles with the help of a suspension rod with height adjustment (60cm interval) and hanger tongs with a horizontal distance of 120cm and will be hung on any type of ceiling. 120cm perpendicular and parallel to the main carrier profiles. long intermediate carrier T-24 profiles will be mounted by interlocking at 120 cm intervals. 60cm for 60x120cm frames formed in this way. The carrier system will be completed by locking the intermediate carrier T-24 profiles.

60x60x1.5 cm size (Armstrong, USG DONN or similar quality imported) rock wool plates that are resistant to 90-95% relative humidity and 60 minutes fire at 32 degrees room temperature will be placed into these 60x60cm cassettes. For electrical fixtures or plumbing necessary gaps will be left in the system or the stone wool boards will be cut and opened.

Measurement:

Ceiling area shall be measured in square meters (m2).

Asma tavan, proje ve detay resimlerine göre ve İşverence beğenilecek olan numunesine uygun olarak yapılacaktır. Alüminyum veya galvanize saçtan mamul, fırın boyalı özel "L" profiller istenilen kottaki düzeyde teraziye alınarak çevre duvarları ile varsa kolonlara vida ve dübelle tespit edilecektir. Ana taşıyıcı T-24 profiller yükseklik ayar tertibatlı (60cm. aralıklı) askı çubuğu ve askı maşası yardımıyla yatay aralıkları 120cm olacak şekilde "L" profillerle aynı kottaki düzlemde teraziye alınarak her türde tavana asılacaktır. Ana taşıyıcı profillere dik ve paralel yönde 120cm. boyundaki ara taşıyıcı T-24 profilleri 120 cm aralıklarla kilitlenerek monte edilecektir. Bu şekilde oluşan 60x120 cm lik çerçevelere 60cm. boyundaki ara taşıyıcı T-24 profiller kilitlenerek taşıyıcı sistem tamamlanmış olacaktır.

Oluşan bu 60x60cm ebadındaki kasetler içine, fugalı veya fugasız 60x60x1,5 cm. ebadındaki (Armstrong, USG DONN veya benzer kalitede ithal) 32 derece oda sıcaklığında %90-95 bağıl neme ve 60 dakika ateşe dayanıklı taş yünü levhaların yerleştirilecek, elektrik armatürleri veya tesisat için gerekli boşluklar sistem içinde bırakılacak veya taş yünü levhalar kesilerek açılacaktır.

Ölçü:

Tamamlanmış tavan alanı metrekare (m2) olarak ölçülecektir.

IN.9 Ceramic Wall Tiling 20x25-30cm / Seramik duvar fayansı 20x25-30cm

Application surface shall be smooth, free of dirt, dust, burrs, and similar residues that prevents adhesion, and the surface moistened. Cement-based, standard performance, reduced slip adhesive will be applied on the surface and will be grooved with special comb. 20x25cm or 20x30cm nominal dimensions, 1st quality coloured ceramic wall tiles (with any kinds of pattern and surface characteristics) shall be laid in accordance with the gauge, leaving 3 mm joint gaps. Joints shall be filled with cement-based, standard performance joint filler material of the desired colour and the surface of the coating shall be cleaned. Ceramic wall tiles shall conform with TS EN 14411.

Unit price includes all material and wastes, workmanship, tools, and equipment necessary to carry out the works, all transportations, loading, and unloading, including overhead and profit of the Contractor.

Measurement:

Area covered with tiles shall be measured in square meters (m2).

Uygulama yüzeyi düz, kir, toz, çapak ve yapışmayı engelleyici benzeri kalıntılardan arındırılmış ve yüzey nemli olmalıdır. Çimento esaslı, standart performanslı, kayma oranı azaltılmış yapıştırıcı yüzeye uygulanacak ve özel tarak ile oluk açılacaktır. 20x25cm veya 20x30cm anma ölçülerinde, 1. kalite renkli seramik duvar karoları (her türlü desen ve yüzey özelliklerinde) mastara uygun olarak 3 mm derz aralığı bırakılarak döşenecektir. Derzler çimento esaslı, istenilen renkte standart performanslı derz dolgu malzemesi ile doldurulacak ve kaplamanın yüzeyi temizlenecektir. Seramik duvar karoları TS EN 14411'e uygun olacaktır.

Birim fiyat, yüklenicinin genel giderleri ve karı dahil olmak üzere işleri, tüm nakliye, yükleme ve boşaltma işlemlerini gerçekleştirmek için gerekli tüm malzeme ve atıkları, işçiliği, araçları ve ekipmanları içerir.

Ölçüm:

Fayans kaplı alan metrekare (m2) olarak ölçülecektir.

IN.10 Primer and Paint / Astar ve Boya

After sanding, grinding, and cleaning of the surface to be painted, 0.150 kg of water based priming, 0.100 kg of 1st coat, and 0.100 kg of 2nd coat of water based matt paint shall be applied. Water-based paint shall conform with TS 5808.

Measurement:

Painted area shall be measured in square meters (m2).

Boyanacak yüzey zımpara, taşlama ve temizlendikten sonra 0.150 kg su bazlı astar, 0.100 kg 1. kat ve 0.100 kg 2. kat su bazlı mat boya uygulanacaktır. Su bazlı boya TS 5808'e uygun olacaktır.

<u>Ölçüm:</u> Boyalı alan metrekare (m2) olarak ölçülecektir.

4.2. PARTICULAR TECHNICAL SPECIFICATIONS FOR MECHANICAL AND ELECTRICAL WORKS

The contractor shall be responsible from the materials and the installations until the substantial completion of the work. The contractor is also responsible from installing all the systems present at the building and other structures in an operative condition free of any deficiency and immediately repairing any failures free of cost for defect liability period, except for the usage faults. If the required repair works cannot be completed within one

month, the parts that have not been repaired within this period shall be repaired by the Employer on behalf of the contractor and shall be deducted from the Performance Guarantee of the Contractor.

Prior to commencement of any electrical or mechanical works on site, Contractor shall prepare and submit to Engineer shop drawings showing all related applications and installations which might be in the form of riser diagrams, plans, sections, and similar.

Eye examination

All materials to be used for mechanical installations shall be subject to eye examination by the Engineer to verify that the materials are not broken, rusted, cracked, old, or defective in any regard.

Functioning examination

All materials to be used for mechanical installations shall be subject to functioning examination through tests without any cost impact to the Employer.

Warranty period

All materials to be used for mechanical installations shall have two (2) years of commercial warranty from the manufacturers starting from substantial completion of works.

PL.1 Sanitaryware & Plumbing / Vitrifiye ve Tesisat

This item covers provision and installation of all sanitaryware (washbasins, mirrors, water closet, fixtures, taps, faucets, valves, accessories and similar), pipes, fittings, ventilation, and connection of domestic and gray lines to the closest junction, all as shown in drawings. Contractor is responsible for provision and installation of any other details or elements that is required for the proper operation of the toilet (even if they are not shown in documents or drawings) area in line with the overall function of the resulting building. All materials shall be first grade and shall confrom with the following:

Washbasins: TS 13420 Taps: TS EN 200 Cistern: TS-EN 274-1-2-3 Mirrors: TS 5229 EN 1036 Water closets: Extra class toilet pan (according to TS EN 997+A1), including hard plastic seat and lid in accordance with TS EN 12164, TS EN 12165 standards, classic or ceramic seal as per TS EN 248 surface standard requirements and TS 15 EN 1213, built-in intermediate shut-off valve, and rosette.

Measurement:

Entire works as described above required for complete functioning of the toilets will be measured as Lump Sum (L.s.)

Bu madde, çizimlerde gösterildiği şekilde, tüm sıhhi tesisat gereç ve malzemelerinin (lavabolar, aynalar, klozetler, armatürler, musluklar, musluklar, vanalar, aksesuarlar ve benzerleri), boruların, bağlantı parçalarının, havalandırmanın temini ve montajı ile evsel ve gri hatların en yakın bağlantı noktasına bağlanmasını kapsamaktadır. Yüklenici, ortaya çıkacak binanın genel işlevi doğrultusunda tuvalet alanının sorunsuz çalışması için gerekli olan diğer tüm detayların veya unsurların (çizimlerde veya dokümanlarda gösterilmemiş olsa dahi) sağlanması ve kurulumundan sorumludur. Tüm malzemeler birinci sınıf olacak ve aşağıdakilerle uyumlu olacaktır:

Lavabolar: TS 13420 Musluklar: TS EN 200 Rezervuar: TS-EN 274-1-2-3 Aynalar: TS 5229 EN 1036 Klozetler: Ekstra sınıf klozet (TS EN 997 + A1'e göre), TS EN 12164, TS EN 12165 standartlarına uygun sert plastik oturak ve kapak, TS EN 248 yüzey standardı şartlarına ve TS 15'e göre klasik veya seramik conta dahil EN 1213, yerleşik ara kapama valfi ve rozet.

<u>Ölçüm:</u>

Tuvaletlerin tam olarak çalışması için gerekli olan yukarıda açıklanan tüm işler götürü bedel (L.s.) olarak değerlendirilecek olup ödeme için herhangi bir malzeme ya da imalat ölçümü dikkate alınmayacaktır.

EL.1 Electrical Installations / Elektrik İşleri

This item covers provision and installation of all electrical devices, fixtures, socket, plugs, outlets, cables, cable trays, lighting fixtures, switches, and similar, all as shown in drawings. Contractor is responsible for provision and installation of any other details or elements that is required for the proper operation of the building (even if they are not shown in documents or drawings) in line with the overall function of the resulting building. All material shall conform with the following together with related TSE standards.

Sorting with safety line, plastic insulated (HO7Z, O7Z1) according to TS EN 60332-1-2, TS EN 60754-1/2 and TS EN 61034-2 standards will be built. Halogen-free flame-retardant pipe with CE Conformity Marking, conforming to TS EN 61386-1/21/22 standards shall be used. The lines will be manufactured in accordance with TS EN 50575 and TS EN 50575/A1 standards.

Although an <u>indicative</u> list of some materials are given below to provide a brief insight for what might be required, it must be noted that <u>no re-measurements of these will be made for the payment purposes</u> of this item since this is a Lump Sum work.

5x6 nym cable (65 meters), steel rope (20 meters), clip, 3x2,5 nym cable (300 meters), 3x1,5 nym cable (150 meters), 6-pin plug (12 pieces), commutator (10 pieces), 110x110 junction box (6 pieces), distribution board (1 piece), 3x63 amp group fuse (1 piece), 1x25 amp automatic fuse (20 pieces), 4 no connectors (10 pieces), **etc.**

Measurement:

Entire works as described above required for complete functioning of the toilets will be measured as Lump Sum (L.s.) and no measurement of materials/equipment will be taken into consideration.

Bu iş kalemi, tümü çizimlerde gösterildiği gibi tüm elektrikli cihazların, armatürlerin, prizlerin, fişlerin, kabloların, kablo tepsilerinin, aydınlatma armatürlerinin, anahtarların, elektrik panılarının ve benzerlerinin tedarikini ve kurulumunu kapsar. Yüklenici, binanın genel işlevine uygun olarak (belgelerde veya çizimlerde gösterilmeseler bile) binanın düzgün çalışması için gerekli olan diğer tüm detayların veya unsurların temini ve kurulumundan sorumludur. Tüm malzemeler, ilgili TSE standartları ile birlikte aşağıdakilere uygun olacaktır.

Emniyet hatlı, plastik izoleli (HO7Z, O7Z1) TS EN 60332-1-2, TS EN 60754-1/2 ve TS EN 61034-2 standartlarına göre sınıflandırma yapılacaktır. Halojensiz, CE Uygunluk İşaretli, TS EN 61386-1 / 21/22 standartlarına uygun alev geciktirici boru kullanılacaktır. Hatlar TS EN 50575 ve TS EN 50575/A1 standartlarına uygun olarak imal edilecektir.

Ne tür malzemelere ihtiyaç duyulduğuna dair kısa bir fikir vermek için aşağıda bazı malzemelerin **gösterge niteliğindeki** bir listesi verilmiş olsa da, bu bir **götürü bedel** çalışma olduğundan, bu kalemin ödeme amaçları için bunların yeniden ölçümünün **yapılmayacağına** dikkat edilmelidir. 5x6 nym kablo (65 metre), çelik halat (20 metre), klips, 3x2,5 nym kablo (300 metre), 3x1,5 nym kablo (150 metre), 6' lı grup priz (12 adet), komitatör (10 adet), 110x110 buat (6 adet), dağıtım panosu (1 adet), 3x63 amper grup sigorta (1 adet), 1x25 amper otomatik sigorta (20 adet), 4 no klemens (10 adet), vb.

<u>Ölçüm:</u>

Binanın elektrik sistemlerinin tam olarak çalışması için gerekli olan yukarıda açıklanan tüm işler götürü bedel (L.s.) olarak ölçülecek olup ödeme için herhangi bir malzeme ya da imalat miktar ve sayısı dikkate alınmayacaktır.

ANNEX 2: QUOTATION SUBMISSION FORM

Bidders are requested to complete this form, including the Company Profile and Bidder's Declaration, sign it and return it as part of their quotation along with Annex 3: Technical and Financial Offer. The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.

Name of Bidder:	Click or tap here to enter text.	
RFQ reference:	UNDP-TUR-RFQ(KR)-2021/008	Date: Click or tap to enter a date.

Company Profile

Item Description	Detail	
Legal name of bidder or Lead entity for JVs	Click or tap here to enter text.	
Legal Address, City, Country	Click or tap here to enter text.	
Website	Click or tap here to enter text.	
Year of Registration	Click or tap here to enter text.	
Legal structure	Choose an item.	
Are you a UNGM registered vendor?	□ Yes □ No If yes, insert UNGM Vendor Number	
Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):	⊠ Yes □ No	
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):	⊠ Yes □ No	
Does your Company have a written Statement of its Environmental Policy? (<i>If yes,</i> <i>provide a Copy</i>)	⊠ Yes □ No	
Does your organization demonstrate 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 (<i>If yes, provide a Copy</i>)	⊠ Yes □ No	

Is your company a member of the UN Global Compact	⊠ Yes □ No
Bank Information	Bank Name: Click or tap here to enter text.
	IBAN: Click or tap here to enter text.
	SWIFT/BIC: Click or tap here to enter text.
	Account Currency: Click or tap here to enter text.
	Bank Account Number: Click or tap here to enter text.

Bidder's Declaration

Yes	No	
		Requirements and Terms and Conditions: I/We have read and fully understand the RFQ, including the RFQ Information and Data, Schedule of Requirements, the General Conditions of Contract, and any Special Conditions of Contract. I/we confirm that the Bidder agrees to be bound by them
		I/We confirm that the Bidder has the necessary capacity, capability, and necessary licenses to fully meet or exceed the Requirements and will be available to deliver throughout the relevant Contract period.
		Ethics : In submitting this Quote I/we warrant that the bidder: has not entered into any improper, illegal, collusive or anti-competitive arrangements with any Competitor; has not directly or indirectly approached any representative of the Buyer (other than the Point of Contact) to lobby or solicit information in relation to the RFQ ;has not attempted to influence, or provide any form of personal inducement, reward or benefit to any representative of the Buyer.
		I/We confirm to undertake not to engage in proscribed practices, , 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 have read the United Nations Supplier Code of Conduct : <u>https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct</u> and acknowledge that it provides the minimum standards expected of suppliers to the UN.
		Conflict of interest: I/We warrant that the bidder has no actual, potential, or perceived Conflict of Interest in submitting this Quote or entering a Contract to deliver the Requirements. Where a Conflict of Interest arises during the RFQ process the bidder will report it immediately to the Procuring Organisation's Point of Contact.
		Prohibitions, Sanctions: I/We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium members or subcontractors or suppliers for any part of the contract 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 and 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.
		Bankruptcy : I/We 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.
		Offer Validity Period: I/We confirm that this Quote, including the price, remains open for acceptance for the Offer Validity.

Yes	No	
		I/We understand and recognize that you are not bound to accept any Quotation you receive, and we certify that the goods offered in our Quotation are new and unused.
		By signing this declaration, the signatory below represents, warrants and agrees that he/she has been authorised by the Organization/s to make this declaration on its/their behalf.

Signature:	
-	

Name:	Click or tap here to enter text.
Title:	Click or tap here to enter text.
Date:	Click or tap to enter a date.

ANNEX 3: TECHNICAL AND FINANCIAL OFFER

Bidders are requested to complete this form, sign it and return it as part of their bid along with Annex 2: Quotation Submission Form. The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.

Name of Bidder:	Click or tap here to enter text.				
RFQ reference:	UNDP-TUR-RFQ(KR)-2021/008	Date: Click or tap to enter a date.			

TECHNICAL OFFER

Technical offer of the bidder shall comprise the following information/sections:

Section 1: a brief description of your qualification and capacity that is relevant to the Scope of Works;

1.1. General organizational capability which is likely to affect implementation: management structure, financial stability and project financing capacity, project management controls, etc.

1.2. Relevance of specialized knowledge and experience on similar engagements done in the region/country. Note: For demonstrating previous relevant experience, bidders shall use the following table and attach Work Completion Certificate which should include the information recorded in the table at minimum.

Please list only previous similar assignments (i.e. construction of any kind of buildings) successfully completed in the **last 3 years** at a minimum contract amount of **USD 25,000**.

List only those assignments for which the Bidder was legally 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 shall provide proof documents for the claimed experience by presenting copies of relevant documents and references with the Bid.**

Project name & Country of Assignment	Client & Reference Contact Details	Contract Value (in USD equivalent*)	Period of activity and status	Types of activities undertaken

*Bidders shall convert the currency quoted in the "Certificate of Completion" into USD, in accordance with the prevailing UN operational rate of exchange on the contract date stated by "Certificate of Completion". UN operational rate of exchange are available at the following website: <u>https://treasury.un.org/operationalrates/OperationalRates.php#E</u>

Section 2: a brief method statement and implementation plan;

2.1. Description of how the Bidder will complete civil works, keeping in mind the appropriateness to local conditions and project environment.

2.2. Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.

Section 3: Team Composition and CVs of key personnel

3.1. Include an organization chart for the management of the project describing the relationship of key positions and designations.

3.2. Provide CVs for key personnel using the format below. Bidders should also submit the Diplomas of proposed Personnel.

Format for CV of Proposed Key Personnel

Name of Personnel	[Insert]
Position for this assignment	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]
Education/	[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]
Qualifications	[Insert]
Professional certifications	<pre>[Provide details of professional certifications relevant to the scope of goods and/or services] Name of institution: [Insert] Date of certification: [Insert]</pre>
Employment Record/ Experience	[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.]
	[Insert]
	[Provide names, addresses, phone and email contact information for two (2) references]
References	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)

FINANCIAL OFFER

Price Schedule Form / Bill of Quantities

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

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.

No specific payment will be made against transportation of materials to the site.

Unless the technical specifications or the Bill of Quantities specifically and expressly state otherwise, only permanent works are to be measured and paid for by UNDP.

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

UN and its subsidiary organs are exempt from all taxes. Therefore, the prices shall exclude Value Added Tax (VAT). The Contractor to be selected shall not be entitled to receive any amount over the prices in relation to VAT, Special Consumption Tax and any other applicable taxes.

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 statutory fees and charges directly related to the execution of the works.
- xiv. All other liabilities, obligations, fees, licenses, as applicable.

The works described in this section include all the necessary materials and losses, loading, horizontal and vertical transportation, unloading, workmanship, transportation of material to the site, contractor's profit and general expenses for the successful completion of the specified items.

Whenever item/pose is related to an item/pose number from the official books published by Turkish public institutes, the definition in this specification shall prevail for any inconsistency. In case of vagueness/absence of an issue in the item definition in this specification, the official definition shall prevail for only the vagueness/absence.

The units of measurement used in the items/pose definitions 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 are to be interpreted as follows:

NOs means number (pieces) m means meter m² means square meter m³ means cubic meter kg means kilogram L.S means Lump Sum

<u>Note</u>: Manufacturing descriptions in the bill of quantity were prepared by using the pose descriptions in Ministry of Environment and Urbanisation (MoEU), General Directorate of Foundations (VGM), General Directorate of PTT (PTT), General Directorate of Provincial Bank (Ilbank), and TEDAŞ unit price books. In case of any dispute between the contractor and UNDP during construction, the poses of any above-mentioned institutions will be based on. In addition, In the technical and financial applications of the above construction poses, the analysis of the poses in the relevant standards of institutions will be considered and implemented as well.

Currency of the Quotation: US Dollars (USD) Section 1: Façade & Exterior					
ltem No	Description	Unit	Quantity	Unit price (USD)	Total price (USD)
FE.1	Sandwich panel façade works Sandviç panel cephe işleri	m²	350.00		
FE.2	Formwork Kalıp İşleri	m²	60.00		
FE.3	Concrete (C 20/25) Beton İşleri (C 20/25)	m ³	9.48		
FE.4	Rebars Demir İşleri	ton	0.76		
FE.5	Aluminium Door (K2) 250x300cm Dış Kapı Alüminyum doğrama (K2) 250X300cm	NOs.	2.00		
FE.6	Sliding PVC Windows 80x200cm Sürgülü PVC Pencere 80X200 cm	NOs.	4.00		
TOTAL AMOUNT FOR SECTION 1 - FAÇADE & EXTERIOR					

Currency of the Quotation: US Dollars (USD) Section 2: Interior Works & Finishes					
ltem No	Description	Unit	Quantity	Unit price (USD)	Total price (USD)
IN.1	Partition Walls for Classrooms Derslikler için Bölme Duvar	m²	112.44		
IN.2	Partition Walls for Toilets Tuvaletler için Bölme Duvar	m²	53.07		
IN.3	Gypsum Panel Wall Covering Giydirme Duvar	m²	87.24		
IN.4	Epoxy flooring Epoxy zemin kaplaması	m ²	98.00		
IN.5	Classroom Doors (K1) 90x210cm Derslik Kapıları (K1) 90X210cm	NOs.	4.00		
IN.6	Toilet Doors (K3) 80x210cm Tuvalet Kapıları (K3) 80X210cm	NOs.	4.00		
IN.7	Disabled Toilet Door (KE) 110x210cm Engelli Tuvalet Kapısı (KE) 110X210cm	NOs.	1.00		

IN.8	Rockwool Modular Suspended Ceiling 60x60 Taşyünü Modüler Asma Tavan 60x60cm	m²	98.00		
IN.9	Ceramic Wall Tiling 20x25-30cm Seramik duvar fayansı 20x25-30cm	m²	35.00		
IN.10	Primer and Paint Astar ve Boya	m²	350.85		
TOTAL AMOUNT FOR SECTION 2 - INTERIOR WORKS & FINISHES					

Currency of the Quotation: US Dollars (USD) Section 3: Mechanical and Electrical Works						
ltem No	Description	Unit	Quantity	Unit price (USD)	Total price (USD)	
PL.1	Sanitaryware & Plumbing Vitrifiye ve Tesisat	L.S.	1.00			
EL.1	EL.1 Electrical Installations Elektrik İşleri					
TOTAL AMOUNT FOR SECTION 3 - MECHANICAL AND ELECTRICAL WORKS						

SUMMARY TABLE:

Section	Description	TOTAL PRICE (USD)
1	Façade & Exterior Works	
2	Interior Works & Finishes	
3	Mechanical and Electrical Works	
TOTAL ESTIMATED PRICE (Section 1 + 2 + 3)		

Compliance with Requirements

	You Responses		
	Yes, we will comply	No, we cannot comply	If you cannot comply, pls. indicate counter - offer
Minimum Technical Specifications and requirements stipulated in the Bill of Quantities			
and Schedule of Requirements			Click or tap here to enter text.
Substantial Completion of works (60 calendar days after given access to the site)			Click or tap here to enter text.

Validity of Quotation		Click or tap here to enter text.
Payment terms		Click or tap here to enter text.

I, the undersigned, certify that I am duly authorized to sign this quotation and bind the company below in event that the quotation is accepted.				
Exact name and address of company	Authorized Signature:			
Company NameClick or tap here to enter text.	Date:Click or tap here to enter text.			
Address: Click or tap here to enter text.	Name:Click or tap here to enter text.			
Click or tap here to enter text.	Functional Title of Authorised Signatory:Click or tap here to enter text. Email Address: Click or tap here to enter text.			
Phone No.:Click or tap here to enter text.				
Email Address:Click or tap here to enter text.				