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TENDER NUMBER: ETC/GS/T/09/15

**TENDER FOR STRUCTURAL ALTERATIONS
AT THE ETC OFFICES IN VICTORIA, GOZO
IN AN ENVIRONMENTALLY FRIENDLY
MANNER**

Closing Date: 27th October 2015 at 10:00am CET

Date Published: 29th September 2015

IMPORTANT:

- No Bid Bond is requested for this tender
- Clarifications shall be uploaded and will be available to view/download from www.etc.gov.mt (under the subheadings '*Resources*' and '*Tenders and Quotations*').

TENDER FOR STRUCTURAL ALTERATIONS AT THE ETC OFFICES IN VICTORIA, GOZO IN AN ENVIORNMENTALLY FRIENDLY MANNER

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VOLUME 1 SECTION 1 - INSTRUCTIONS TO TENDERERS

A. GENERAL PART

1. General Instructions

- 1.1 In submitting a tender, the tenderer accepts in full and in its entirety, the content of this tender document, including subsequent Clarifications issued by the Central Contracting Authority, whatever his own corresponding conditions may be, which he hereby waives. Tenderers are expected to examine carefully and comply with all instructions, forms, contract provisions and specifications contained in this tender document.

No account can be taken of any reservation in the tender as regards the tender document; any disagreement, contradiction, alteration or deviation shall lead to the tender offer not being considered any further.

The Evaluation Committee shall, after having obtained approval by the Departmental Contracts Committee, request rectifications in respect of incomplete/non-submitted information pertinent to the documentation as outlined in sub-Clause 16.1(a), 16.1(b), 16.1(c), 16.1(d), and 16.1(e)(i) of these Instructions to Tenderers. Such rectification/s must be submitted within five (5) working days from notification, and will be subject to a non-refundable administrative penalty of €50: failure to comply shall result in the tender offer not being considered any further.

No rectification shall be allowed in respect of the documentation as outlined in sub-Clause 16.1(e)(ii) and 16.1(f) of these Instructions to Tenderers. Only clarifications on the submitted information in respect of the latter may be eventually requested.

- 1.2 This is a call for tenders for structural alteration at the ETC Offices in Vicotria.
- 1.3 This is a lump-sum (Bill of Quantities) contract.
- 1.4 The tenderer will bear all costs associated with the preparation and submission of the tender. The Contracting Authority will in no case be responsible or liable for such costs, whatever the conduct or outcome of the procedure.
- 1.5 The Contracting Authority retains ownership of all tenders received under this tender procedure. Consequently, tenderers have no right to have their tenders returned to them.

2. Timetable

	DATE	TIME*
Clarification Meeting/Site Visit (Refer to Clause 9.2)	7 th October 2015	10:30am
Deadline for request for any additional information from the Contracting Authority	13 th October 2015	-
Last date on which additional information are issued by the Contracting Authority	21 st October 2015	-
Deadline for submission of tenders / Tender Opening Session (unless otherwise modified in terms of Clause 11.3)	27 th October 2015	10:00am

* All times Central European Time (CET)/Central European Summer Time (CEST)
*Delete as applicable

3. Lots

- 3.1 This tender is not divided into lots, and tenders must be for the whole of quantities indicated. Tenders will not be accepted for incomplete quantities.

4. Financing

- 4.1 The project is financed from local budget funds.
- 4.2 The beneficiary of the financing is the Employment and Training Corporation.

5. Eligibility

- 5.1 Participation in tendering is open on equal terms to all natural and legal persons of the Member States of the European Union, the beneficiary country, any other country in accordance with Regulation 76 of the Public Procurement Regulations 2010.
- 5.2 Natural persons, companies or undertakings who fall under any of the conditions set out in Regulation 50 of the Public Procurement Regulations, 2010 (Legal Notice 296 of 2010) may be excluded from participation in and the award of contracts. Tenderers or candidates who have been guilty of making false declarations will also incur financial penalties representing 10% of the total value of the contract being awarded.
- 5.3 Tenders submitted by companies forming a joint venture/consortium must also fulfil the following requirements:
- One partner must be appointed lead partner and that appointment confirmed by submission of powers of attorney signed by legally empowered signatories representing all the individual partners. The tender must include a preliminary agreement or letter of intent stating that all partners assume joint and several liability for the execution of the contract, that the lead partner is authorised to bind, and receive instructions for and on behalf of, all partners, individually and collectively.
 - All partners in the joint venture/consortium are bound to remain in the joint venture/consortium until the conclusion of the contracting procedure. The consortium/joint venture winning this contract must include the same partners for the whole performance period of the contract other than as may be permitted or required by law.
- 5.4 All materials, equipment and services to be supplied under the contract must originate in an eligible country. For these purposes, "origin" means the place where the materials and/or equipment are mined, grown, produced or manufactured and/or from which services are provided.

6. Selection Criteria

- 6.1 In order to be considered eligible for the award of the contract, tenderers must provide evidence that they meet or exceed certain minimum qualification criteria described hereunder.
- In the case of a joint venture, the joint venture as a whole must satisfy the minimum qualifications required below.**
- 6.1.1 No evidence of economic and financial standing is required.
- 6.1.2 Information about the tenderer's technical capacity.

(An economic operator may, where appropriate and for a particular contract, rely on the capacities of other entities, regardless of the legal nature of the links which it has with them. It must in that case prove to the contracting authority that it will have at its disposal the resources necessary for the execution of the contract, for example, by producing an undertaking by those entities to place the necessary resources at the disposal of the economic operator)

This information must follow the forms in Volume 1, Section 4 of the tender

documents and include:

- Data concerning sub-contractors and the percentage of works to be sub-contracted:

The maximum amount of sub-contracting must not exceed [40%] of the total contract value.

The main contractor must have the ability to carry out at least [60%] of the contract works by his own means.

7. Multiple Tenders

- 7.1 A tenderer may submit multiple tender offers.
- 7.2 A company may not tender for a given contract both individually and as a partner in a joint venture/consortium.
- 7.3 A company may not tender for a given contract both individually/partner in a joint venture/consortium, and at the same time be nominated as a sub-contractor by any another tenderer, or joint venture/consortium.
- 7.4 A company may act as a sub-contractor for any number of tenderers, and joint ventures/consortia, provided that it does not participate individually or as part of a joint venture/consortium, and that the nominations do not lead to a conflict of interest, collusion, or improper practice.

8. Tender Expenses

- 8.1 The tenderer will bear all costs associated with the preparation and submission of the tender.
- 8.2 The Contracting Authority will neither be responsible for, nor cover, any expenses or losses incurred by the tenderer through site visits and inspections or any other aspect of his tender.

9. Site Inspection

- 9.1 A tenderer may visit the site of the works and its surroundings for the purpose of assessing, at his own responsibility, expense and risk, factors necessary for the preparation of his tender and the signing of the contract for the works.
- 9.2 A clarification meeting/site visit will be held by the Contracting Authority, as specified in Article 2 - Timetable. The Site Visit will be held on Wednesday 7th October 2015 at Gozo ETC Office, Sir Arturo Mercieca Street, Victoria - VCT 2024, at 10:30am.

B. TENDER DOCUMENTS

10. Content of Tender Document

- 10.1 The set of tender documents comprises the following documents and should be read in conjunction with any clarification notes issued in accordance with Clause 24:
- | | |
|----------|--|
| Volume 1 | Instructions to Tenderers |
| Volume 2 | <ul style="list-style-type: none">• Draft Contract• General Conditions (available online from http://contracts.gov.mt/en/Tenders/Pages/Tenders.aspx)• Special Conditions |
| Volume 3 | Technical Specifications |
| Volume 4 | Model Financial Bid/Bill of Quantities |
| Volume 5 | Drawings |
- 10.2 Tenderers bear sole liability for examining with appropriate care the tender

documents, including those design documents available for inspection, and any clarification notes to the tender documents issued during the tendering period, and

for obtaining reliable information with respect to conditions and obligations that may in any way affect the amount or nature of the tender or the execution of the works. In the event that the tenderer is successful, no claim for alteration of the tender amount will be entertained on the grounds of errors or omissions in the obligations of the tenderer described above.

- 10.3 The tenderer must provide all documents required by the provisions of the tender document. All such documents, without exception, must comply strictly with these conditions and provisions and contain no alterations made by the tenderer.

11. Explanations/Clarification Notes Concerning Tender Documents

- 11.1 Tenderers may submit questions in writing to the Contracting Authority by sending an email to tenders.etc@gov.mt up to 13 calendar days before the deadline for submission of tenders. The Contracting Authority must reply to all tenderers' questions, and amend the tender documents by publishing clarification notes, up to at least 6 calendar days before the deadline for submission of tenders.
- 11.2 Questions and answers, and alterations to the tender document will be published as a clarification note on the website of the Employment and Training Corporation (www.etc.gov.mt) within the respective tender's page, under the subheading 'Resources' and 'Tenders and Quotations'. Clarification notes will constitute an integral part of the tender documentation, and it is the responsibility of tenderers to visit this website and be aware of the latest information published online prior to submitting their Tender.
- 11.3 The Contracting Authority may, at its own discretion, as necessary and in accordance with Clause 24, extend the deadline for submission of tenders to give tenderers sufficient time to take clarification notes into account when preparing their tenders.

12. Labour Law

- 12.1 Particular attention is drawn to the conditions concerning the employment of labour in Malta and the obligation to comply with all regulations, rules or instructions concerning the conditions of employment of any class of employee.

13. Law

- 13.1 By submitting their tenders, tenderers are accepting that this procedure is regulated by Maltese Law, and are deemed to know all relevant laws, acts and regulations of Malta that may in any way affect or govern the operations and activities covered by the tender and the resulting contract.

C. TENDER PREPARATION

14. Language of Tenders

- 14.1 The tender and all correspondence and documents related to the tender exchanged by the tenderer and the Contracting Authority must be written in English.
- 14.2 Supporting documents and printed literature furnished by the tenderer may be in another language, provided they are accompanied by an accurate translation into English. For the purposes of interpretation of the tender, the English language will prevail.

15. Presentation of Tenders

- 15.1 Tenders must satisfy the following conditions:
- (a) All tenders must be submitted in one original, clearly marked “original”, and one identical copy (including all documentation as in the original) signed in the same way as the original and clearly marked “copy”.
 - (b) Both documents are to be separately sealed and placed in another sealed envelope/package so that the bid can be identified as one tender submission. Following the tender opening session, the copy shall be kept, unopened, at the Employment and Training Corporation, for verification purposes only should the need arise, during the Evaluation stage.
 - (c) All tenders must be received by date and time indicated in the timetable at Clause 2 and deposited in the tender box at the entrance of the Employment and Training Corporation, Head Office, Hal Far, BBG 3000, Malta.
 - (d) All packages, as per (b) above, must bear only:
 - (i) the above address
 - (ii) the reference of the tender

16. Content of Tender (Single-Envelope System)

- 16.1 The tender must comprise the following duly completed documents, inserted in a single, sealed envelope (unless their volume requires a separate submission):
- (a) No bid-bond is being requested^(Note 1)
 - (b) *General/ Administrative Information*^(Note 2)
 - (i) Statement on Conditions of Employment (Volume 1, Section 4)

Selection Criteria
 - (c) *Financial and Economic Standing*^(Note 2)
 - Not Applicable*
 - (d) *Technical Capacity*^(Note 2)
 - (i) Sub-Contracting form (where applicable), (Volume 1, Section 7)
 - (e) *Evaluation Criteria/ Technical Specifications*
 - (i) Literature list (Volume 1, Section 4)^(Note 2)
 - (ii) Declaration agreeing to Technical Specifications (Volume 3)^(Note 2)
 - (iii) Tenderer’s Technical Offer in response to specifications (Volume 3) including appropriate proof the criterion for Thermal Insulation are met.^(Note 3)
 - (iv) Programme of Works (Volume 1, Section 7)^(Note 3)
 - (v) Graphic Work Schedule (Volume 2, Section 7)^(Note 3)
 - (f) *Financial Offer/ Bill of Quantities*^(Note 3)
 - (i) The Tender Form in accordance with the form provided in Volume 1, Section 2; a separate Tender Form is to be submitted for each option tendered, each form clearly marked ‘Option 1’, ‘Option 2’ etc.;
 - (ii) A financial bid calculated on the works tendered;
 - (iii) Breakdown of the overall price, in the form provided in Volume 4 (Bill of Quantities);

Notes to Clause 16.1:

1. *Tenderers will be requested to clarify/rectify, within five working days from notification, the tender guarantee only in the following two circumstances: either incorrect validity date, and/or incorrect value.*
2. *Tenderers will be requested to either clarify/rectify any incorrect and/or incomplete documentation, and/or submit any missing documents within five working days from notification.*
3. *No rectification shall be allowed. Only clarifications on the submitted information may be requested.*

Tenderers must indicate where the above documentation is to be found in their offer by using an index. All documentation is to be securely bound/filed.

Tenderers are NOT required NOR expected to submit, with their offer, any components of the tender document except those specifically mentioned in Clause 16.

17. Tender Prices

- 17.1 The tender price must cover the whole of the works as described in the tender documents.
- 17.2 The tenderer must provide a breakdown of the overall price in Euro (€). Three decimal points do not exist as currency; therefore such offers cannot be accepted. Offers are to be submitted up to two decimal points.
- 17.3 Tenderers must quote all components of the price **inclusive** of taxes, customs and import duties and any discounts **BUT** excluding VAT. VAT shall be paid in accordance with the applicable VAT Regulations.
- 17.4 Different options are to be clearly identifiable in the technical and financial submission; a separate Tender Form (as per Volume 1, Section 2) marked 'Option 1', 'Option 2' etc. for each individual option clearly outlining the price of the relative option is to be submitted.
- 17.5 If the tenderer offers a discount, the discount must be absorbed in the rates of the Bill of Quantities/Financial Bid Form.
- 17.7 The prices for the contract, must include all of the works to be provided. The prices quoted are fixed and not subject to revision or escalation in costs, unless otherwise provided for in the Special Conditions.

18. Currencies of Tender and Payments

- 18.1 The currency of the tender is the Euro (€). All sums in the breakdown of the overall price, in the questionnaire and in other documents must be expressed in Euro (€), with the possible exception of originals of bank and annual financial statements.
- 18.2 Payments will be made upon certification of works by the Contracting Authority, based on the invoice issued by the Contractor, in accordance with the timeframes, terms and conditions of the contract.
- 18.3 All correspondence relating to payments, including invoices and interim and final statements, must be submitted as outlined in the contract.

19. Period of Validity of Tenders

- 19.1 Tenders must remain valid for a period of 90 days after the deadline for submission of tenders indicated in the contract notice, the tender document or as modified in accordance with Clauses 11.3 and/or 24. Any tenderer who quotes a shorter validity

period will be rejected.

- 19.2 The Director General Contracts/Head of Contracting Authority may consider to cancel the tender following consultations with the General Contracts Committee/Permanent Secretary; in the event that the evaluation process has not been concluded by the end of the validity period of the submitted bids.
- 19.3 In exceptional circumstances the Central Government Authority/Contracting Authority may request that tenderers extend the validity of tenders, without extending the validity of the Tender Guarantee (Bid Bond), for two further periods of four (4) weeks each. Such requests and the responses to them must be made in writing. A tenderer may refuse to comply with such a request without forfeiting his tender guarantee (Bid Bond). However, his tender will no longer be considered for award. If the tenderer decides to accede to the extension, he may not modify his tender.
- 19.4 Following the further extension by eight (8) weeks, in accordance with Regulation 6(2)(c) of LN296/2010 the non conclusion of the evaluation process will automatically lead to the cancellation of the tender, provided that the Director General (Contracts)/Head of Contracting Authority shall consult the Departmental Contracts Committee/Permanent Secretary.
- 19.5 The successful tenderer must maintain his tender for a further 60 days from the date of notification of award.

20. Tender Guarantee (Bid Bond)

- 20.1 No tender guarantee (bid bond) is required.

21. Variant Solutions

- 21.1 No variant solutions will be accepted. Tenderers must submit a tender in accordance with the requirements of the tender document.
- 21.2 The rates and prices inserted in the bill of quantities (if applicable) must tally with the conditions laid down in the tender documents.

For lump sum contracts, the bidder must include an itemised breakdown of the overall price as modified by the variant solution.

22. Preparation and Signing of Tenders

- 22.1 All tenders must be submitted in one original, clearly marked "original", and one identical copy (including all documentation as in the original) signed in the same way as the original and clearly marked "copy". Tenders must comprise the documents specified in Clause 16 above.
- It is the responsibility of the tenderers to ensure that both the original and the copy are an identical representation of one another.
- 22.2 The tenderer's submission must be typed in, or handwritten in indelible ink. Any pages on which entries or corrections to his submission have been made must be initialled by the person or persons signing the tender. All pages must be numbered consecutively by hand, machine or in any other way acceptable to the Contracting Authority.
- 22.3 The tender must contain no changes or alterations, other than those made in accordance with instructions issued by the Contracting Authority (issued as clarification notes) or necessitated by errors on the part of the tenderer. In the latter case, corrections must be initialled by the person signing the tender.
- 22.4 The tender will be rejected if it contains any alteration, tampering, addition or deletion to the tender documents not specified in a clarification note issued by the Contracting Authority.

D. SUBMISSION OF TENDERS

23. Sealing and Marking of Tenders

- 23.1 The tenders must be submitted in English and deposited in the Corporation's tender box **before** the deadline specified in Clause 2 or as otherwise specified in accordance with Clause 11.1 and/or 24.1. They must be submitted:

EITHER by recorded delivery (official postal/courier service) or hand delivered to:

**Employment and Training Corporation
Head Office
Hal Far, BBG 3000
Malta**

Tenders submitted by any other means will not be considered.

- 23.2 Tenderers must seal the original and the copy of their tender as outlined in Clause 15.
- 23.3 If the outer envelope is not sealed and marked as required in Sub clause 15.1, the Contracting Authority will assume no responsibility for the misplacement or premature opening of the tender.

24. Extension of Deadline for Submission of Tenders

- 24.1 The Contracting Authority may, at its own discretion, extend the deadline for submission of tenders by issuing a clarification note in accordance with Clause 11. In such cases, all rights and obligations of the Contracting Authority and the tenderer regarding the original date specified in the contract notice will be subject to the new date.

25. Late Tenders

- 25.1 All tenders received after the deadline for submission specified in the contract notice or these instructions will be kept by the Contracting Authority. The associated guarantees will be returned to the tenderers.
- 25.2 No liability can be accepted for late delivery of tenders. Late tenders will be rejected and will not be evaluated.

26. Alterations and Withdrawal of Tenders

- 26.1 Tenderers may alter or withdraw their tenders by written notification prior to the above deadline. No tender may be altered after the deadline for submission.
- 26.2 Any notification of alteration or withdrawal must be prepared, sealed, marked and submitted in accordance with Clause 23, and the envelope must also be marked with "alteration" or "withdrawal".
- 26.3 The withdrawal of a tender in the period between the deadline for submission and the date of expiry of the validity of the tender will result in forfeiture of the tender guarantee provided for in Clause 20.

E. OPENING AND EVALUATION OF OFFERS

27. Opening of Tenders

- 27.1 Tenders will be opened in public session on the date and time indicated in the timetable at Clause 2 (or as otherwise specified in accordance with Clause 11.1 and/or 24.1) at the Employment and Training Corporation, Head Office, Hal Far, BBG 3000, Malta by the Evaluation Committee or its representatives. They will draw up a 'Summary of Tenders Received' which will be published on the notice board at the Employment and Training Corporation and shall also be available to view on the Corporation's website, www.etc.gov.mt.
- 27.2 At the tender opening, the tenderers' names, the tender prices, variants, written notification of alterations and withdrawals, the presence of the requisite tender guarantee and any other information the Contracting Authority may consider appropriate will be published.
- 27.3 Envelopes marked "withdrawal" will be read out first and returned to the tenderer.
- 27.4 Reductions or alterations to tender prices made by tenderers after submission will not be taken into consideration during the analysis and evaluation of tenders.

28. Secrecy of the Procedure

- 28.1 After the opening of the tenders, no information about the examination, clarification, evaluation or comparison of tenders or decisions about the contract award may be disclosed before the notification of award.
- 28.2 Information concerning checking, explanation, opinions and comparison of tenders and recommendations concerning the award of contract, may not be disclosed to tenderers or any other person not officially involved in the process unless otherwise permitted or required by law.
- 28.3 Any attempt by a tenderer to approach any member of the Evaluation Committee/Contracting Authority directly during the evaluation period will be considered legitimate grounds for disqualifying his tender.

29. Clarification of Tenders

- 29.1 When checking and comparing tenders, the evaluation committee may, after obtaining approval from the Departmental Contracts Committee, ask a tenderer to clarify any aspect of his tender.
- 29.2 Such requests and the responses to them must be made by e-mail or fax. They may in no circumstances alter or try to change the price or content of the tender, except to correct arithmetical errors discovered by the evaluation committee when analysing tenders, in accordance with Clause 31.

30. Tender Evaluation Process

- 30.1 The following should be read in conjunction with Clause 27.
- 30.2 **Part 1: Administrative Compliance**

The Evaluation Committee will check the compliance of tenders with the instructions given in the tender document, and in particular the documentation submitted in respect of Clause 16.

The Evaluation Committee shall, after having obtained approval by the Departmental Contracts Committee, request rectifications in respect of incomplete/non-submitted information pertinent to the documentation as outlined in sub-Clause 16.1(a), 16.1(b), 16.1(c), 16(d) and 16.1(e)(i) of these Instructions to Tenderers. Such rectification/s must be submitted within five (5) working days from notification, and will be subject to a non-refundable administrative penalty of €50: failure to comply shall result in the tender offer not being considered any further. No rectification shall be allowed in respect of the documentation as outlined in sub-Clause 16.1(e)(ii), and 16.1(f) of these Instructions to Tenderers. Only clarifications on the submitted information in respect of the latter may be eventually requested.

30.3 Part 2: Eligibility and Selection Compliance

Tenders which have been considered administratively compliant shall be evaluated for admissibility as outlined below:

(i) Eligibility Criteria

- Tender Form (Volume 1, Section 2)

(ii) Selection Criteria

- Evidence of financial and economic standing
- Evidence of technical capacity

30.4 Part 3: Technical Compliance

At this step of the evaluation process, the Evaluation Committee will analyse the administratively-compliant tenders' technical conformity in relation to the technical specifications (Volume 3, and the documentation requested by the Contracting Authority as per sub-Clause 16(e)), classifying them technically compliant or non-compliant.

Tenders who are deemed to be provisionally technically compliant through the evaluation of their technical offer (especially the specifications) shall be requested to submit samples so that the Evaluation Committee will corroborate the technical compliance of the offers received.

30.5 Part 4. Financial Evaluation

The financial offers for tenders which were not eliminated during the technical evaluation (i.e., those found to be technically compliant) will be evaluated.

The Evaluation Committee will check that the financial offers contain no arithmetical errors as outlined in Clause 31. The financial evaluation will have to identify the best financial offer.

31. Correction of Arithmetical Errors

31.1 Admissible tenders will be checked for arithmetical errors by the Evaluation Committee. Errors will be corrected as follows:

- (a) where there is a discrepancy between amounts in figures and in words, the amount in words will prevail;
- (b) where there is a discrepancy between a unit price and the total amount derived from the multiplication of the unit price and the quantity, the unit price as quoted will prevail.

31.2 The amount stated in the tender will be adjusted by the Evaluation Committee in the event of error, and the tenderer will be bound by that adjusted amount. In this regard, the Evaluation Committee shall seek the prior approval of the Departmental Contracts Committee to communicate the revised price to the tenderer. If the tenderer does not accept the adjustment, his tender will be rejected and his tender guarantee forfeited.

31.3 When analysing the tender, the evaluation committee will determine the final tender price after adjusting it on the basis of Clause 31.1.

F. CONTRACT AWARD

32. Criteria for Award

32.1 The sole award criterion will be the price. The contract will be awarded to the cheapest priced tender satisfying the administrative and technical criteria.

33. Right Of The Central Government Authority To Accept Or Reject Any Tender

- 33.1 The Contracting Authority reserves the right to accept or reject any tender and/or to cancel the whole tender procedure and reject all tenders. The Contracting Authority reserves the right to initiate a new invitation to tender.
- 33.2 The Contracting Authority reserves the right to conclude the contract with the successful tenderer within the limits of the funds available. It can decide to reduce the scope of the works or to ask for a discount from the cheapest compliant tenderer.
- 33.3 In the event of a tender procedure's cancellation, tenderers will be notified by the Contracting Authority. If the tender procedure is cancelled before the outer envelope of any tender has been opened, the sealed envelopes will be returned, unopened, to the tenderers.
- 33.4 Cancellation may occur where:
- (a) the tender procedure has been unsuccessful, namely where no qualitatively or financially worthwhile tender has been received or there has been no response at all;
 - (b) the economic or technical parameters of the project have been fundamentally altered;
 - (c) exceptional circumstances or force majeure render normal performance of the project impossible;
 - (d) all technically compliant tenders exceed the financial resources available;
 - (e) there have been irregularities in the procedure, in particular where these have prevented fair competition;
 - (f) the duration of the evaluation has exceeded the stipulated time limit in Article 19 of Instructions to Tenderers.

In no circumstances will the Central Government Authority be liable for damages, whatever their nature (in particular damages for loss of profits) or relationship to the cancellation of a tender, even if the Central Government Authority has been advised of the possibility of damages. The publication of a contract notice does not commit the Central Government Authority to implement the programme or project announced.

34. Notification of Award, Contract Clarifications

- 34.1 Prior to the expiration of the period of validity of tenders, the Contracting Authority will notify the successful tenderer, in writing, that his tender has been recommended for award by the General Contracts Committee, pending any appeal being lodged in terms of Part XIII of the Public Procurement Regulations (being reproduced in Volume 1, Section 6).
- 34.2 Unsuccessful bidders shall be notified with the outcome of the evaluation process, and will be provided the following information:
- (i) the criteria for award;
 - (ii) the name of the successful tenderer;
 - (iii) the recommended price of the successful bidder;
 - (iv) the reasons why the tenderer did not meet the technical specifications/notification that the offer was not the cheapest (if applicable);
 - (v) the deadline for filing a notice of objection (appeal);
 - (vi) the deposit required if lodging an appeal.
- 34.3 The recommendations of the Departmental Contracts Committee shall be published on the Notice Board of the Employment and Training Corporation, and published online on the Corporation's website, www.etc.gov.mt.

35. Contract Signing and Performance Guarantee

- 35.1 After the lapse of the appeals period, and pending that no objections have been received and/or upheld, the successful tenderer may be invited to clarify certain contractual questions raised therein. Such clarification will be confined to issues that had no direct bearing on the choice of the successful tender. The outcome of any such clarifications will be set out in a Memorandum of Understanding, to be signed by both parties and incorporated into the contract.

- 35.2 Before the Contracting Authority signs the contract with the successful tenderer, the successful tenderer may be requested to provide the documentary proof or statements required to show that it does not fall into any of the exclusion situations listed in Tenderer's Declaration of the Tender Response Format. The above mentioned documents must be submitted by every member of a Joint Venture/Consortium (if applicable).
- 35.3 The Contractor shall, within 15 calendar days of receipt of the contract, sign and date the contract and return it together with a copy of the Performance Guarantee. The Contractor is further obliged to forward the original performance guarantee to the Contracting Authority. The Contracting Authority will not effect any payment to the contractor until the performance guarantee is submitted.
- 35.4 If the selected tenderer fails to sign and return the contract, other required documentation, and any guarantees required within the prescribed 15 calendar days, the Contracting Authority may consider the acceptance of the tender to be cancelled without prejudice to the Contracting Authority's right to seize the guarantee, claim compensation or pursue any other remedy in respect of such failure, and the successful tenderer will have no claim whatsoever on the Contracting Authority.
- The tenderer whose tender has been evaluated as second cheapest may be recommended for award, and so on and so forth.
- 35.5 Only the signed contract will constitute an official commitment on the part of the Contracting Authority, and activities may not begin until the contract has been signed by the Central Government Authority and the successful tenderer.
- 35.6 Tender guarantees (bid bonds) provided by tenderers who have not been selected shall be released within 30 calendar days from the signing of the contract. The tender guarantee of the successful tenderer shall be released on the signing of the contract, and on submission of a valid performance guarantee.
- 35.7 The performance guarantee referred to in the General Conditions is set at 10% of the amount of the contract and must be presented in the form specified in Volume 2, Section 4, to the tender document the performance guarantee shall be released within 30 days of the signing of the Final Statement of Account (Final Bill), unless the Special Conditions provide otherwise.

36. Commencement of Works (Order To Start Works)

- 36.1 Following the signing of the contract by both parties, the Supervisor will issue a written notice of commencement of the works in accordance with the General Conditions, as specified by the Special Conditions.
- 36.2 The Contractor must inform the Contracting Authority's representative by return that he has received the notice.

G. MISCELLANEOUS

37. Ethics Clauses

- 37.1 Any attempt by a candidate or tenderer to obtain confidential information, enter into unlawful agreements with competitors or influence the committee or the Contracting Authority during the process of examining, clarifying, evaluating and comparing tenders will lead to the rejection of his candidacy or tender and may result in administrative penalties.
- 37.2 Without the Contracting Authority's prior written authorisation, the Contractor and his staff or any other company with which the Contractor is associated or linked may not, even on an ancillary or sub-contracting basis, supply other services, carry out works or supply equipment for the project. This prohibition also applies to any other programmes or projects that could, owing to the nature of the contract, give rise to a conflict of interest on the part of the Contractor.
- 37.3 When putting forward a candidacy or tender, the candidate or tenderer must declare

that he is affected by no potential conflict of interest, and that he has no particular link with other tenderers or parties involved in the project.

- 37.4 The Contractor must at all times act impartially and as a faithful adviser in accordance with the code of conduct of his profession. He must refrain from making public statements about the project or services without the Contracting Authority's prior approval. He may not commit the Contracting Authority in any way without its prior written consent.
- 37.5 For the duration of the contract, the Contractor and his staff must respect human rights and undertake not to offend the political, cultural and religious morals of Malta.
- 37.6 The Contractor may accept no payment connected with the contract other than that provided for therein. The Contractor and his staff must not exercise any activity or receive any advantage inconsistent with their obligations to the Contracting Authority.
- 37.7 The Contractor and his staff are obliged to maintain professional secrecy for the entire duration of the contract and after its completion. All reports and documents drawn up or received by the Contractor are confidential.
- 37.8 The contract governs the Parties' use of all reports and documents drawn up, received or presented by them during the execution of the contract.
- 37.9 The Contractor shall refrain from any relationship likely to compromise his independence or that of his staff. If the Contractor ceases to be independent, the Central Government Authority may, regardless of injury, terminate the contract without further notice and without the Contractor having any claim to compensation.
- 37.10 The tender(s) concerned will be rejected or the contract terminated if it emerges that the award or execution of a contract has given rise to unusual commercial expenses. Such unusual commercial expenses are commissions not mentioned in the main contract or not stemming from a properly concluded contract referring to the main contract, commissions not paid in return for any actual and legitimate service, commissions remitted to a tax haven, commissions paid to a recipient who is not clearly identified or commissions paid to a company which has every appearance of being a front company.

38. Data Protection and Freedom of Information

- 38.1 Any personal data submitted in the framework of the procurement procedure and/or subsequently included in the contract shall be processed pursuant to the Data Protection Act (2001). It shall be processed solely for the purposes of the performance, management and follow-up of the procurement procedure and/or subsequent contract by the Central Government Authority/Contracting Authority without prejudice to possible transmission to the bodies charged with a monitoring or inspection task in conformity with National and/or Community law.
- 38.2 The provisions of this contract are without prejudice to the obligations of the Central Government Authority in terms of the Freedom of Information Act (Cap. 496 of the Laws of Malta). The Contracting Authority, prior to disclosure of any information to a third party in relation to any provisions of this contract which have not yet been made public, shall consult the contractor in accordance with the provisions of the said Act, pertinent subsidiary legislation and the Code of Practice issued pursuant to the Act. Such consultation shall in no way prejudice the obligations of the Contracting Authority in terms of the Act.

39. Gender Equality

- 39.1 In carrying out his/her obligations in pursuance of this contract, the tenderer shall ensure the application of the principle of gender equality and shall thus 'inter alia' refrain from discriminating on the grounds of gender, marital status or family responsibilities. Tenderers are to ensure that these principles are manifest in the organization of the company where the principles aforementioned, including the selection criteria for access to all jobs or posts, at all levels of the occupation hierarchy are amply proven. In this document words importing one gender shall also include the other gender.

VOLUME 1 SECTION 2 - TENDER FORM

(A separate, distinct Tender Form must be submitted for EACH OPTION - if applicable - submitted)

Tender Number: ETC/GS/T/09/15
 Name of Tender: Tender for Structural Alterations at the ETC Offices in Victoria, Gozo in an Environmentally Friendly Manner

A. TENDER SUBMITTED BY:	<i>(This will be included in the Summary of Tenders Received)</i>		
<u>In case of a Joint Venture/Consortium:</u>			
Name(s) of Leader/Partner(s)	Nationality	Proportion of Responsibilities²	
Leader ¹			
Partner ¹			
Etc ...			

1. Add/delete additional lines for partners as appropriate. Note that a sub-contractor is not considered to be a partner for the purposes of this tender procedure. If this tender is being submitted by an individual tenderer, the name of the tenderer should be entered as 'leader' (and all other lines should be deleted)
2. Proposed proportion of responsibilities between partners (in %) with indication of the type of the works to be performed by each partner (the company acting as the lead partner in a joint venture/consortium, they must have the ability to carry out at least 50% of the contract works by its own means. If a company is another partner in a joint venture/consortium (i.e. not the lead partner) it must have the ability to carry out at least 10% of the contract works by its own means).

	Work intended to be sub-contracted	Name and details of sub-contractors	Value of sub-contracting as percentage of the total cost ³	Experience in similar works (details to be specified)
1				
2				
(.)				

3. The maximum amount of sub-contracting must not exceed 40% of the total contract value. The main contractor must have the ability to carry out at least 60% of the contract works by his own means.

B CONTACT PERSON (for this tender)

Name		Surname	
Telephone	(____) _____	Fax	(____) _____
Address		
E-mail			

C TENDERER'S DECLARATION(S)

To be completed and signed by the tenderer (including each partner in a consortium).

In response to your letter of invitation to tender for the above contract, we, the undersigned, hereby declare that:

- 1 We have examined, and accept in full and in its entirety, the content of this tender document (including subsequent Clarifications Notes issued by the Central Government Authority) for invitation to tender No ETC/GS/T/20/15. We hereby accept the contents thereto in their entirety, without reservation or restriction. We also understand that any disagreement, contradiction, alteration or deviation shall lead to our tender offer not being considered any further.
- 2 We offer to execute, in accordance with the terms of the tender document and the conditions and time limits laid down, without reserve or restriction, the following works:

Item No 1: Structural Alterations at the ETC Offices in Victoria, Gozo in an Environmentally Friendly Manner

- 3 The Total Price of our tender (inclusive of duties, other taxes and any discounts but exclusive of VAT) is:

Item No 1: *This amount is to be carried forward from the Form - Bill of Quantities*

- 4 This tender is valid for a period of **90** days from the final date for submission of tenders.
- 5 If our tender is accepted, we undertake to provide a performance guarantee of 10% of the contract value as required by the General Conditions.
- 6 We are making this application in our own right and **[as partner in the consortium led by < name of the leader / ourselves >]** for this tender **[Lot No]**. We confirm that we are not tendering for the same contract in any other form. **[We confirm, as a partner in the consortium, that all partners are jointly and severally liable by law for the performance of the contract, that the lead partner is authorised to bind, and receive instructions for and on behalf of, each member, and that all partners in the joint venture/consortium are bound to remain in the joint venture/consortium for the entire period of the contract's performance]**. We are fully aware that, in the case of a consortium, the composition of the consortium cannot be modified in the course of the tender procedure.
- 7 We are not bankrupt or under an administration appointed by the Court, or under proceedings leading to a declaration of bankruptcy. We also declare that we have not been convicted criminally, or found guilty of professional misconduct. Furthermore, we are up-to-date in the payment of social security contributions and other taxes.
- 8 We accept that we shall be excluded from participation in the award of this tender if compliance certificates in respect of declarations made under Clause 7 of this declaration are not submitted by the indicated dates.
- 9 We agree to abide by the ethics clauses of the instructions to tenderers and, in particular, have no potential conflict of interests or any relation with other candidates or other parties in the tender procedure at the time of the submission of this application. We have no interest of any nature whatsoever in any other tender in this procedure. We recognise that our tender may be excluded if we propose key experts who have been involved in preparing this project or engage such personnel as advisers in the preparation of our tender.
- 10 We will inform the Central Government Authority immediately if there is any change in the above circumstances at any stage during the implementation of the contract. We also fully recognise and accept that any false, inaccurate or incomplete information deliberately provided in this application may result in our exclusion from this and other contracts funded by the Government of Malta and the European Communities.
- 11 Our tender submission has been made in conformity with the Instructions to Tenderers, and in this respect we confirm having included in the appropriate packages as required, the following documentation:

- (a) **Tender Guarantee** ^(Note 1)
 - Bid Bond

- (b) **General Information** ^(Note 2)
 - Statement on Conditions of Employment

- Selection Criteria** ^(Note 2)
- (c) **Financial and Economic Standing** ^(Note 2)
 - Not Applicable

- (d) **Technical Capacity** ^(Note 2)
 - Experience as Contractor - not applicable

- (e) **Evaluation Criteria/Technical Specifications**
 - Literature List ^(Note 2)
 - Declaration agreeing to Technical Specification (Volume 3) ^(Note 2)
 - Tenderer's Technical Offer ^(Note 3)
 - Programme of Works (Form 9) ^(Note 3)
 - Graphic Work Schedule (Form 10) ^(Note 3)

- (f) **Tender Form, and Financial Offer/Bill of Quantities** ^(Note 3)

Notes:

1. *Tenderers will be requested to clarify/rectify, within five working days from notification, the tender guarantee only in the following two circumstances: either incorrect validity date, and/or incorrect value. This is indicated by the symbol ○*
2. *Tenderers will be requested to either clarify/rectify any incorrect and/or incomplete documentation, and/or submit any missing documents within five working days from notification. This is indicated by the symbol ○*
3. *No rectification shall be allowed. Only clarifications on the submitted information may be requested. This is indicated by the symbol ●*

- 12 I acknowledge that the Central Government Authority and/or Contracting Authority shall request rectifications in respect of incomplete/non-submitted information pertinent to the documentation listed in Clause 11(a), 11(b), 11(c), 11(d) and 11(e) first bullet of this Tender Form. We understand that such rectification/s must be submitted within five (5) working days, and will be subject to a non-refundable administrative penalty of €50, and that failure to comply shall result in our offer not being considered any further.
- 13 We note that the Central Government Authority is not bound to proceed with this invitation to tender and that it reserves the right to cancel or award only part of the contract. It will incur no liability towards us should it do so.

Name and Surname: _____

I.D. / Passport Number: _____

Signature of tenderer: _____

Duly authorised to sign this tender on behalf of: _____

Company/Lead Partner VAT No: _____
(if applicable)

Stamp of the firm/company: _____

Place and date: _____

VOLUME 1 SECTION 4 - TENDERER'S STATEMENTS

1. Statement on Conditions of Employment

**Tenderers are to ensure that self-employed personnel are not engaged on this contract.
Non-compliance will invalidate the contract.**

It is hereby declared that all employees engaged on this contract shall enjoy working conditions such as wages, salaries, vacation and sick leave, maternity and parental leave as provided for in the relative Employment Legislation. Furthermore, we shall comply with Chapter 424 of the Laws of Malta (Occupational Health and Safety Authority Act) as well as any other national legislation, regulations, standards and/or codes of practice or any amendment thereto in effect during the execution of the contract.

In the event that it is proved otherwise during the execution of the contract it is hereby being consented that the contract is terminated with immediate effect and that no claim for damages or compensation be raised by us.

Signature:

(the person or persons authorised to sign on behalf of the tenderer)

Date:

4. Literature List

1. List of literature to be submitted with the tender:

Item	Description	Reference in Technical Specifications
1.1		
1.2		
1.3		
1.4		
1.5		
1.6		
1.7		
1.8		
1.9		

Signature:
(the person or persons authorised to sign on behalf of the tenderer)

Date:

VOLUME 1 SECTION 5 - GLOSSARY

Definitions

Note: the present definitions are given here for convenience only, in the context of the tender procedure. The definitions set out in the contract as concluded are determining for the relations between the parties to the contract.

Administrative order: Any instruction or order issued by the Engineer to the Contractor in writing regarding the execution of the works.

Breakdown of the overall price: A heading-by-heading list of the rates and costs making up the price for a lump-sum contract.

Central Government Authority: means the Department of Contracts

Contracting Authority: means the final beneficiary

Conflict of interest: Any event influencing the capacity of a candidate, tenderer or supplier to give an objective and impartial professional opinion, or preventing him, at any moment, from giving priority to the interests of the Central Government Authority and the Contracting Authority. Any consideration relating to possible contracts in the future or conflict with other commitments, past or present, of a candidate, tenderer or supplier, or any conflict with his own interests. These restrictions also apply to sub-contractors and employees of the candidate, tenderer or supplier.

Contract value: The total value of the contract to be paid by the Contracting Authority in terms of the agreed terms and conditions.

Contractor: The successful tenderer, once all parties have signed the contract.

Day: Calendar day.

Dayworks: Varied work inputs subject to payment on an hourly basis for the Contractor's employees and plant.

Defects Notification Period: The period stated in the contract immediately following the date of provisional acceptance, during which the Contractor is required to complete the works and to remedy defects or faults as instructed by the Engineer.

Drawings: Drawings provided by the Contracting Authority and/or the Engineer, and/or drawings provided by the Contractor and approved by the Engineer, for the carrying out of the works.

Engineer's representative: Any natural or legal person, designated by the Engineer as such under the contract, and empowered to represent the Engineer in the performance of his functions, and in exercising such rights and/or powers as have been delegated to him. In this case, references to the Engineer will include his representative.

Equipment: Machinery, apparatus, components and any other articles intended for use in the works

Evaluation committee: a committee made up of an odd number of voting members (at least three) appointed by the Central Government Authority and possessing the technical, linguistic and administrative capacities necessary to give an informed opinion on tenders.

Final acceptance certificate: Certificate(s) issued by the Engineer to the Contractor at the end of the defects notification period stating that the Contractor has completed his obligations to construct, complete, and maintain the works concerned.

Final Beneficiary: The Department/Entity or other government body on whose behalf the Department of Contracts has issued this tender.

Foreign currency: Any currency permissible under the applicable provisions and regulations other than the Euro, which has been indicated in the tender.

General conditions: The general contractual provisions setting out the administrative, financial, legal and technical clauses governing the execution of contracts.

General damages: The sum not stated beforehand in the contract, which is awarded by a court or an arbitration tribunal, or agreed between the parties, as compensation payable to an injured party for a breach of the contract by the other party.

In writing: This includes any hand-written, typed or printed communication, including fax transmissions and electronic mail (e-mail).

Liquidated damages: The sum stated in the contract as compensation payable by the Contractor to the Contracting Authority for failure to complete the contract or part thereof within the periods under the contract, or as payable by either party to the other for any specific breach identified in the contract.

Modification: An instruction given by the Engineer which modifies the works.

National currency: The currency of the country of the Contracting Authority.

Period: A period begins the day after the act or event chosen as its starting point. Where the last day of a period is not a working day, the period expires at the end of the next working day.

Plant: appliances and other machinery, and, where applicable under the law and/or practice of the state of the Contracting Authority, the temporary structures on the site required to carry out the works but excluding equipment or other items required to form part of the permanent works.

Provisional sum: A sum included in the contract and so designated for the execution of works or the supply of goods, materials, plant or services, or for contingencies, which sum may be used in whole or in part, or not at all, as instructed by the Engineer.

Site: The places provided by the Contracting Authority where the works are to be carried out and other places stated in the contract as forming part of the site.

Special conditions: The special conditions laid down by the Contracting Authority as an integral part of the tender document, amplifying and supplementing the general conditions, clauses specific to the contract and the terms of reference (for a service contract) or technical specifications (for a supply or works contract).

Supervisor/Engineer: The legal or natural person responsible for administering the contract on behalf of the Contracting Authority.

Tender document/s: The dossier compiled by the Contracting Authority and containing all the documents needed to prepare and submit a tender.

Tender price: The sum stated by the tenderer in his tender for carrying out the contract.

Works: Works of a permanent or temporary nature executed under the contract.

Written communications: Certificates, notices, orders and instructions issued in writing under the contract.

VOLUME 1 SECTION 6 - EXTRACTS FROM THE PUBLIC PROCUREMENT REGULATIONS

Part II - Rules governing public contracts whose value does not exceed one hundred and twenty thousand euro (€120,000)

The procedure for the submission of appeals is stipulated in Part II of the Public Procurement Regulations (Legal Notice 296/2010), reproduced hereunder for ease of reference.

- 21(1) Where the estimated value of the public contract exceeds twelve thousand euro (€12,000) and is issued by an authority listed in Schedule 1, any tenderer or candidate concerned shall have a right to make a complaint to the Review Board in accordance with this regulation.
- (2) (a) The contracting authority shall be obliged to issue a notice and affix an advertisement, in a prominent place at its premises, indicating the awarded public contract, the financial aspect of the award and the name of the successful tenderer. The contracting authority shall, by electronic means or by fax, inform the tenderer or candidate concerned of the publication of the award. The contracting authority shall be precluded from concluding the contract during the period allowed for the submission of appeals.
(b) The award process shall be completely suspended if an appeal is eventually submitted.
- (3) Any tenderer or candidate concerned who is aggrieved by the award indicated by the contract authority may, within five working days from the publication of the notice, file a letter of objection, together with a deposit, with the contracting authority, clearly setting forth any reason for his complaint. The deposit to be paid in respect of tenders valued at less than forty-seven thousand euro (€47,000) shall be four hundred euro (€400), while those between forty-seven thousand euro (€47,000) and one hundred and twenty thousand euro (€120,000) shall be 0.5% of the estimated value of the tender, with a minimum deposit of four hundred euro (€400). The letter by the complaining tenderer shall be affixed on the notice board of the contracting authority and shall be brought to the attention of the recommended tenderer.
- (4) After the expiry of the period allowed for the submission of a complaint, the contracting authority shall deliver the letter of complaint, the deposit receipt and all documents relating to the public contract in question to the Review Board who shall examine the matter in a fair and equitable manner. In its deliberation the Review Board shall have the authority to obtain, in any manner it deems appropriate, any other information not already provided by the contracting authority. The Review Board shall determine the complaint by upholding or rejecting it. The written decision of the Review Board shall be affixed on the notice board of the contracting authority and copies thereof shall be forwarded to the Director of Contracts and all the parties involved.
- (5) (a) Any tenderer or candidate who feels aggrieved by a decision taken by the Review Board may appeal to the Court of Appeal (Superior Jurisdiction) as constituted in accordance with article 41(1) of the Code of Organization and Civil Procedure by means of an application filed in the registry of that court within twenty calendar days from the decision on which that decision has been made public.
(b) A copy of the appeal application shall be served on the Contracting Authority and on the recommended tenderer, if any, who may file a written reply within twenty days from the date of service.
(c) The Court of Appeal shall set down the cause for hearing at an early date, in no case later than two months from the date on which the appeal is brought before it and shall cause notice of such date to be given to the parties who, on their part, shall assume the responsibility to visit the court registry and be aware of the latest information regarding the appointment for the hearing of the case.
(d) After appointing the application for hearing, and after listening to the oral submissions made by all parties, the Court shall decide the application on its merits, within the shortest time possible but not any later than four months from the day when the appeal had been filed and the parties have been duly notified. Pending the decision of the Court, the process of the call for tenders shall be suspended.

- (6) Tender documents issued in terms of this Part shall include a clause informing tenderers that the award of the contract is subject to the right of recourse as provided for in this regulation, a copy of which should be reproduced in the documents.
- (7) The Minister shall have the authority by order to extend the provisions of this regulation in order that recourse as provided in this regulation be made available also by authorities listed in Schedule 3 and to prescribe the procedure by which such recourse is to be granted.

VOLUME 1 SECTION 7

Form 1 - Power of Attorney (Where applicable)

Please attach here the power of attorney empowering the signatory of the tender and all related documentation.

Signature:
(the person or persons authorised to sign on behalf of the tenderer)

Date:

Form 2 - Data on Joint Venture/Consortium (Where applicable)

1	Name
2	Managing Board's Contact Details	Address: Telephone: Fax: Email:
3	Agency in the state of the Contracting Authority, if any <i>(in the case of a Joint Venture/Consortium with a foreign lead partner)</i>	Address: Telephone: Fax: Email:
4	Names of Partners	(i) (ii) (iii) (iv)
5	Name of Lead Partner
6	Agreement governing the formation of the Joint Venture/Consortium <i>(Enclose Joint Venture/ Consortium Agreement)</i>	
	Place of Signature:	Date of Signature:

7	Proposed proportion of responsibilities between partners (in %) with indication of the type of the works to be performed by each* * The company acting as the lead partner in a joint venture/consortium, they must have the ability to carry out at least 50% of the contract works by its own means. If a company is another partner in a joint venture/consortium (i.e. not the lead partner) it must have the ability to carry out at least 10% of the contract works by its own means	
 -% -%
 -% -%

Signature:
(the person or persons authorised to sign on behalf of the tenderer)

Date:

Form 3 - Sub-Contracting (Where applicable)

If the tenderer plans to sub-contract part of the works, he must provide the following details:

Work intended to be sub-contracted	Name and details of sub-contractors	Value of sub-contracting as percentage of the total cost *	Experience in similar works (details to be specified)

*** Note**

- The maximum amount of sub-contracting must not exceed [40%] of the total contract value.
- The main contractor must have the ability to carry out at least [60%] of the contract works by his own means.

Signature:
 (the person or persons authorised to sign on behalf of the tenderer)

Date:

Form 8 - Quality Assurance System/s

Please provide hereunder details of the quality assurance system(s) which would be available for ensuring the successful completion of the works. Also, please provide (where applicable) an indication of the technicians or technical bodies involved, whether or not belonging directly to the economic operator's undertaking, especially those responsible for quality control and those upon whom the contractor can call in order to carry out the work. *(to be typewritten)*

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Signature:
(the person or persons authorised to sign on behalf of the tenderer)

Date:

Form 9 - Workplan and Programme of Works

Please attach the Workplan and Programme of Works in relation to this tender.

Signature:
(the person or persons authorised to sign on behalf of the tenderer)

Date:

Form 10 - Graphic Work Schedule

Please attach the Graphic Work Schedule in relation to this tender.

Signature:
(the person or persons authorised to sign on behalf of the tenderer)

Date:

VOLUME 2

VOLUME 2 SECTION 1 - DRAFT CONTRACT FORM

Financed by: [Specify Source of Financing]

Project: [Title and Number]

Contract Number: [Contract Number]

This contract is concluded between:

Employment and Training Corporation
Head Office
Hal Far, BBG 3000,
Malta

(hereinafter called “The Contracting Authority ”) on behalf of [name of Contracting Authority and address]
on the one part, and

[Name of Contractor]

[Address]

(hereinafter called “The Contractor”) on the other part,

Whereas the Contracting Authority is desirous that certain works should be executed by the Contractor, viz.:

[Contract Title]

and has accepted a tender by the Contractor for the execution and completion of such works and the remedying of any defects therein.

It is hereby agreed as follows:

1. In this contract words and expressions shall have the meanings assigned to them in the contractual conditions set out below.
2. The following documents shall be deemed to form and be read and construed as part of this contract, in the following order of precedence:
 - (a) this Contract,
 - (b) the Special Conditions,
 - (c) the General Conditions,
 - (d) the technical specifications, bill of quantities and design documentation,
 - (e) the Contractor’s technical offer (including any clarifications made during adjudication),
 - (f) the bill of quantities (after arithmetical corrections)/breakdown,
 - (g) the tender form,
 - (h) any other documents forming part of the contract.

Addenda shall have the order of precedence of the document they are modifying.

3. In consideration of the payments to be made by the Contracting Authority to the Contractor as hereinafter mentioned, the Contractor undertakes to execute and complete the works and remedy defects therein in full compliance with the provisions of the contract.
4. The Contracting Authority hereby agrees to pay the Contractor in consideration of the execution and completion of the works and remedying of defects therein the amount of:
 - Contract price (**excluding** VAT/ including other taxes): €.....
 - Contract price in words:..... Euro

or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract. VAT shall be paid in compliance with National Law (in particular the VAT Act 1998, the Act No X of 2003 and relevant Legal Notices).

5. The Contractor hereby agrees to submit a performance guarantee amounting to €..... equivalent to 10% of the contract value together with the signed contract.
6. In witness whereof the parties hereto have signed the contract. This contract shall take effect on the date on which it is signed by the last party.
7. The provisions of this contract are without prejudice to the obligations of the Central Government Authority in terms of the Freedom of Information Act (Cap. 496 of the Laws of Malta). The Central Government Authority, prior to disclosure of any information to a third party in relation to any provisions of this contract which have not yet been made public, shall consult the contractor in accordance with the provisions of the said Act, pertinent subsidiary legislation and the Code of Practice issued pursuant to the Act. Such consultation shall in no way prejudice the obligations of the Central Government Authority in terms of the Act.

Done in English in three originals: one for the Central Government Authority, one for the Contracting Authority, and one for the Contractor.

Central Government Authority:

Contractor:

Signed by:

Signed by:

.....

.....

In the capacity of:

In the capacity of:

.....

.....

Being fully authorized by and acting on behalf of

Being fully authorized by and acting on behalf of

.....

.....

Date:

Date:

VOLUME 2 SECTION 2 - GENERAL CONDITIONS

The full set of General Conditions for Works Contracts (Version 1.05 dated 20 January 2015) can be viewed/downloaded from:

<http://contracts.gov.mt/en/Tenders/Pages/Tenders.aspx>

It is hereby construed that the tenderers have availed themselves of these general conditions, and have read and accepted in full and without reservation the conditions outlined therein, and are therefore waiving any standard terms and conditions which they may have.

These general conditions will form an integral part of the contract that will be signed with the successful tenderer/s.

VOLUME 2 SECTION 3 - SPECIAL CONDITIONS

These conditions amplify and supplement, if necessary, the General Conditions governing the contract. Unless the Special Conditions provide otherwise, those General Conditions remain fully applicable. The numbering of the Articles of the Special Conditions is not consecutive but follows the numbering of the Articles of the General Conditions. Other Special Conditions should be indicated afterwards.

Article 2: Law and language of the contract

- 2.1 The Laws of Malta shall apply in all matters not covered by the provisions of the contract.
- 2.2 The language used shall be English.

Article 3: Order of precedence of contract documents

The contract is made up of the following documents, in order of precedence:

- (a) the Contract,
- (b) the Special Conditions,
- (c) the General Conditions,
- (d) the Contracting Authority's technical specifications and design documentation,
- (e) the Contractor's technical offer, and the design documentation (drawings),
- (f) the bill of quantities (after arithmetical corrections)/breakdown,
- (g) the tender declarations in the Tender Response Format,
- (h) any other documents forming part of the contract.

Addenda have the order of precedence of the document they are modifying.

Article 4: Communications

All communication shall be via email or in writing

Article 5: Supervisor and Supervisor's representative

- Administrative orders shall be issued by the contracting authority

Article 8: Supply of Documents

As per General Conditions

Article 10: Assistance with Local Regulations

As per General Conditions

Article 11: The Contractor's Obligations

- As per General Conditions

Article 13: Performance Guarantee

- 13.1 The performance guarantee shall be to a value of 10% of contract value

- 13.3 The performance guarantee shall be in the format given in Section 5 and shall be provided in the form of a bank guarantee. It shall be issued by a bank in accordance with the eligibility criteria applicable for the award of the contract.

Article 14: Insurance

As per General Conditions

Article 15: Performance Programme (Timetable)

Works are to be completed within 10 calendar weeks from issue of letter of acceptance.

Article 17: Contractor's Drawings

As per General Conditions

Article 18: Tender Prices

As per General Conditions

Article 22: Interference With Traffic

As per General Conditions

Article 25: Demolished Materials

- 25.1 Demolished material are property of the contractor and are to be carted away to an approved dumping site.

Article 26: Discoveries

- 26.2 Any discoveries of archeological importance become property of the Contracting Authority.

Article 28: Soil Studies

- 28.1 Not applicable

Article 30: Patents and Licences

- 30.1 As per General Conditions

Article 31: Commencement Date

- 31.1 Works are to commence within 1 week from issue of Letter of acceptance.

Article 32: Period of Execution of Tasks

32.1 As indicated in article 15

Article 34: Delays in Execution

34.1 A fine of 1/1000 of the contract price per day's delay up to a limit of 20% of the total contract price for may apply.

Article 35: Variations and Modifications

35.7 As per General Conditions

Article 37: Work Register

37.1 As per General Conditions

Article 38: Origin

38.1 As per General Conditions

Article 39: Quality of Works and Materials

39.2 As per General Conditions

Article 40: Inspection and Testing

40.2 As per General Conditions

Article 42: Ownership of Plants and Materials

42.2 As per General Conditions

Article 43: Payments: General Principles

43.1 Payments will be made in Euro.

Payments shall be authorized by the Contracting Authority, and paid by the Treasury Department.

Article 44: Pre-financing

44.1 Not applicable

Article 45: Retention Monies

45.2 As per General Conditions

Article 46: Price Revision

- 46.1 As per General Conditions
- 46.3 Prices contained in the Contractor's tender shall be deemed:
- a) to have been determined on the basis of the conditions in force 30 days prior to the latest date fixed for submission of tenders or, in the case of direct agreement contracts, on the date of the contract;
 - b) to have taken account of the legislation and the relevant tax arrangements applicable at the reference date fixed in Article 46.3(a).
- 46.4 In the event of changes to, or introduction of, any national or state statute, ordinance, decree or other law, or any regulation or bye-law of any local or other public authority, after the date stated in Article 46.3 which causes a change in the contractual relationship between the parties to the contract, the Contracting Authority and the Contractor shall consult on how best to proceed further under the contract, and may as a result of such consultation decide, with the prior approval of the Central Government Authority:
- a) to modify the contract; or
 - b) to provide for compensation for any imbalance caused by one Party to the other; or
 - c) to terminate the contract by mutual agreement.
- 46.5 In the event of a delay in the execution of the works for which the Contractor is responsible, or at the end of the period of performance revised as necessary in accordance with the contract, there shall be no further revision of prices within the 30 days before provisional acceptance, except for the application of a new price index, if this is to the benefit of the Contracting Authority.

Article 47: Measurement

- 47.2 Measurement of works shall be carried out by a representative of the Contracting Authority, in the presence of the Contractor. Such measurement shall be deemed as final.

Article 48: Interim Payments

- 48.1 Interim payments may be carried out subject to satisfactory performance.

Article 50: Delayed Payments

- 50.1 The Contracting Authority shall pay the contractor sums due within xx days of the date on which an admissible payment is registered, in accordance with Article 43 of these Special Conditions. This period shall begin to run from the approval of these documents by the competent department referred to in Article 43.1 of these Special Conditions. These documents shall be approved either expressly or tacitly, in the absence if any written reaction in the 30 days following their receipt accompanied by the requisite documents.

Article 53: End Date

As per article 15

Article 56: Partial Acceptance

56.3 As per General Conditions

Article 57: Provisional Acceptance

As per General Conditions

Article 58: Maintenance Obligations

58.6 As per General Conditions

Article 66: Dispute Settlement by Litigation

Any dispute between the Parties that may arise during the performance of this contract and that has not been possible to settle otherwise between the Parties shall be submitted to the arbitration of the Malta Arbitration Centre in accordance with the Arbitration Act (Chapter 387) of the Laws of Malta.

This law is based on "Model Law" which is the Model Law on International Commercial Arbitration adopted on June 21, 1985 by the United Nations Commission on International Trade Law reproduced in the First Schedule of the Arbitration Act.

VOLUME 2 SECTION 4 - SPECIMEN PERFORMANCE GUARANTEE

(LETTERHEAD OF THE REGISTERED FINANCIAL INSTITUTION PROVIDING THE GUARANTEE)

Contracting Authority address

[Date]

Dear Sir,

Our Guarantee Number for €.....

Account: [Account Holder's Name]

In connection with the contract entered into between yourself on behalf of the Director of Contracts and [Name and Address of Contractor] hereinafter referred to as "the Contractor" as per the latter's tender and your acceptance under [CT File Reference], whereby the contractor undertook the [title of contract] in accordance with Article 13 of the Special Conditions the [works/services/supplies] as mentioned, enumerated or referred to in the Specification and/or Bills of Quantities forming part of the contract documents, we hereby guarantee to pay you on demand a maximum sum of €[amount in words and numbers] in case the obligations of the above-mentioned contract are not duly performed by the Contractor.

This guarantee will become payable on your first demand and it shall not be incumbent upon us to verify whether such demand is justified.

For avoidance of doubt it is hereby declared that although this instrument gives rise to legal relations between the guarantor and the beneficiary, it is hereby specifically declared for all intents and purposes of law that this guarantee does not exempt the above-mentioned Contractor from any obligations, acts of performance or undertaking assumed under the tender documents as ratified in the contract.

Any payments due to the contractor in respect of the obligations entered into under the contract above referred to shall be made through this Bank.

This guarantee expires on the [expiry date] and unless it is extended by us or returned to us for cancellation before that date any demand made by you for payment must be received in writing not later than the aforementioned expiry date.

This document should be returned to us on utilization or expiry or in the event of the guarantee being no longer required.

After the expiry date and in the absence of a written demand being received by us before such expiry date, this guarantee shall be null and void, whether returned to us or not, and our liability hereunder shall terminate.

This guarantee is personal to you, and is not transferable or assignable.

Yours Faithfully,

.....
[Signatory on behalf of Guarantor]

VOLUME 3 - TECHNICAL SPECIFICATIONS

Part 1 - To be specified by the Contracting Authority in the tender document

Note:

Where in this tender document a standard is quoted, it is to be understood that the Contracting Authority will accept equivalent standards. However, it will be the responsibility of the respective bidders to prove that the standards they quoted are equivalent to the standards requested by the Contracting Authority.

EARTH WORKS

General

The following definitions of earthworks and filling materials shall apply to this and other clauses of the Requirements in which reference is made to the defined materials.

"Top Soil" shall mean the top layer of soil that can support vegetation.

"Suitable Material" shall comprise all that which is acceptable in accordance with the Contract for use in the works and which is capable compacted as specified.

"Unsuitable Material" shall mean other than suitable material and shall include:

- Peat, timber and perishable material
- Material susceptible to spontaneous combustion
- Clay with a liquid limit exceeding 80 and having a plasticity index exceeding 55
- Materials having a moisture content greater than the maximum permitted for such materials in the Contract.

"Rock" shall mean bed rock of various hardness.

"Return, fill and ram" shall mean all handling necessary to return the earth, which has previously been excavated and deposited in spoil heaps around the foundations. The operation is to be carried out in layers as described, each layer being carefully watered and consolidated by ramming until the excavation has been made good.

"Cart away" shall mean the disposal of the surplus excavation materials away from the Site.

The Contractor must give reasonable notice to the Engineer when foundation excavations are ready for inspection and no concrete is to be poured or work of similar nature commenced until such excavations have been approved.

References

The Structure Plan for the Maltese Islands: RCO 27
The Soil Preservation Act, 1973.

Requirements / Workmanship

Surveys shall be made of the areas of excavation before any excavation work is carried out under the Contract, and after all excavation work has been completed.

Excavation Generally

The Contractor shall provide and maintain all necessary temporary drainage and shall divert and reinstate permanent drainage systems.

The whole of the excavation shall be carried out to such lines, levels and dimensions and slopes shown or, as may be ordered by the Engineer in writing from time to time and faces shall be neatly trimmed using adequate tools which limit excessive vibrations to third part property.

All surplus and unsuitable material shall be removed and disposed of away from the Site by the Contractor.

In the side of rock cuttings where, inferior stone or soft materials intervene between layers of compact rock, or where the rock after exposure will not withstand weathering or where the rock is potentially unstable, such material or faces shall be rendered satisfactory. Removal of unsatisfactory material the resulting space has to be built up with suitable material to the required profile at the Contractor's expense.

Excavation shall be carried out to tolerance of -0 mm or $+25$ mm in line and level.

Any excess depth or width excavated beyond the formation profile tolerance specified shall be made good at the expense of the Contractor by backfilling with suitable material or similar characteristics to that removed and compacted as specified or by concrete of approved Grade.

The sides of cuttings shall be cleared of all rock fragments which are potentially unsafe, which shall include all rock fragments which move when prised by a crow-bar. Where in the slopes of cuttings layers of rock and softer material alternate and that the sides, immediately after dressing will not permanently withstand the effect of weather, the Contractor shall excavate any insecure material to an approved depth and build up the resulting spaces with Grade 25 concrete so as to ensure a solid face.

Excavation of Pits and Trenches

The sides of excavation generally, pits and trenches shall wherever necessary be adequately supported at all times and no planking and strutting shall be withdrawn from the excavation on completion of the permanent work unless it is safe to do so. Alternatively, the sides may be battered.

The Contractor shall be responsible for excavating trenches and preparing them.

The Contractor shall be required to backfill the trenches carefully in accordance with the specification.

Trenches and pits shall be kept free of water at all times.

Trenches and pits shall be no wider than is necessary for the efficient execution of the required works.

The bottom of all excavations shall be levelled and carefully stepped or benched horizontally. Any pockets of soft material or loose rock in the bottom of pits and trenches shall be removed and the resulting cavities and any large fissures filled with Grade 20 concrete. After the placing of any blinding concrete required by the Contractor, not trimming of the side faces shall be carried out for 24 hours.

The Contractor shall at his own expense make good with suitable material as defined or concrete:

Any excavation greater than the new volume required for the works as described in the Contract.

Any additional excavation at or below the formation level to remove material which the Contractor allows to become unsuitable.

Any over cutting of rock face against party walls.

Any holes after removal of unsatisfactory material.

Any holes caused by the rock after exposure not withstand weathering. All excavations material which is either surplus or unsuitable for backfilling shall be transported and disposed of according to the requirements of the permit issued by the Planning Authority.

Refilling of Pits and Trenches and Removal of Supports

All filling for this purpose shall consist of suitable materials as defined elsewhere in this Requirements deposited and compacted by approved plant in accordance with specified requirements. Timber sheeting and other excavation supports shall be carefully removed as the filling proceeds except where they are required by the Contract to be left in position, but the removal of such supports will not relieve the Contractor of his responsibilities for the stability of the works.

Works to Be Kept Free of Water

The Contractor shall arrange for the rapid dispersal of water, shed on the earthworks from any source, and when practicable the water shall be discharged into the permanent out fall for the pipe drainage system. Adequate means for trapping silt shall be provided on temporary systems discharging into a permanent drainage systems. The arrangements shall be made in respect of all earth works including excavations whether for pipe trenches, foundations or cuttings.

The Contractor shall be responsible for all temporary drains or other means of removing all water from any section of the works necessary until the Surface Water and Foul Water Systems are complete and all pumps commissioned. Continuous pumping of large quantities of ground water from the works shall not be undertaken without the Engineer's prior agreement.

All temporary drains or trenches shall be removed on completion of the Works.

Salvage of Materials

All materials suitable for salvage and re-use shall be cleaned and stacked on site and the debris removed from the Site by the Contractor.

Excess material from excavations not required by the Contractor shall be removed from the Site. The Contractor shall be responsible for loading, transporting to the specified area and off loading of such materials.

Filling and Backfilling

All material used for filling shall be deposited and compacted as soon as practicable after excavation in layers of thickness appropriate to the compaction plant used. Filling of areas and embankments shall be built up evenly over the full width and shall be maintained at all times with a sufficient camber and a surface sufficiently even to enable surface water to drain readily from them.

Backfilling of material shall be compacted to 100% Standard Proctor.

If the material deposited as fill subsequently reaches a condition such that it cannot be compacted in accordance with the requirements of the specification the Contractor shall either:

Make good by removing the material either to tip or elsewhere until it is in a suitable physical condition for re-use, and replacing it with suitable material, or

Make good the material by approved mechanical or chemical means to improve its stability.

Preparation of Fill Areas

The natural ground over which filling is to be placed shall be cleared of all loose boulders, grass, productive soil, mud, bushes, trees, roots, other vegetation and other unsuitable material.

Material for Filling

Material for filling shall comprise rock and decomposed rock which shall be evenly graded. All reinstated excavated material to foundations must be solidly tamped at every 150 mm backfill. No voids are to be left in the filling and every effort should be made to return the maximum volume of backfill into the excavation.

All filling material, whether placed and/or compacted or awaiting placing and/or compaction, which does not comply with the Requirements or has been damaged by weather or in any other way shall be removed at the Contractor's expense.

Handling, loading, transporting, unloading and placing of filling materials shall be carried out in such a manner as to avoid segregation.

Trial Area of Filling

Where required by the Engineer, before commencing filling the Contractor shall at his own expense compact a trial area of filling of the type proposed for use using the plant proposed for the Works in accordance with specified standards of compaction. The area shall be of assize and depth to the approval of the Engineer sufficient for the trial to adequately represent the work involved in the general filling operations.

Variations of method or plant will only be permitted when the Contractor demonstrates by field trials that the compaction obtained by the alternative method achieves compaction equivalent to that obtained by the approved method.

During the progress of the Works the Contractor shall inform the Engineer of any factors outside his control which may adversely affect the compaction achieve.

Tolerances to Filling

The fill shall be placed and compacted to a tolerance of $-10 \text{ mm} + 15 \text{ mm}$ for a final surface. Where further works will be carried out above the fill the tolerance shall be $-25 \text{ mm}, +0 \text{ mm}$.

Filling Adjacent to Structures

Filling against the perimeter of structures shall not be carried out until the construction is sufficiently advanced that there is no risk of interferences or damage from either the compaction equipment or the backfill material.

Filling shall be carried out in accordance with the clause compaction requirements using compacting equipment suitable for the area being compacted. The backfilling material shall be suitable material and within 600 mm of any structure shall not contain any particular size in excess of 100 mm.

Filling material for excavations and for making up levels within the perimeter of structures shall be suitable material and shall contain no particular size in excess of 100 mm. The compaction of fill material within the perimeter of structures shall be carried out with equipment suited to the area being compacted.

Settlement of Filled Areas

The Contractor shall make good to the satisfaction of the Engineer all settlement in filling and in backfilling that may occur up to the end of the Defects Notification Period.

Blasting

Blasting will not be allowed, but if in exceptional cases it is found necessary, the Contractor shall carry it out entirely on his own responsibility. No blasting is to be carried out without the written permission of the Engineer. Such permission is no way relieves the Contactor of his sole and total responsibility, particularly in respect of the stability of the rock foundation.

Grub up Obstructions Etc.

Unless otherwise stated in the schedule, the Contractor is to allow in his tender for breaking up and removing all obstructions met with during the course of the excavation, including old foundations, drains, septic tanks and cesspits, etc. and filling with excavated material well consolidated.

CONCRETE WORKS

General

The present Requirements for Concrete Works is based on the latest editions of the relevant British Standards and Codes of Practice, notably BS 5328: 1997 and BS 8110: Part 1:1997. or the EN equivalent.

Materials

General

Materials used in the works shall be new, good and of the qualities and kinds specified herein and equal to approved samples. Delivery shall be made sufficiently in advance to enable further samples to be taken and tested if required. Materials not approved shall be immediately removed from the works at the Contractor's cost.

All specified properties of the concrete-making materials shall be tested with a frequency to ensure continuous compliance with the requirements, and whenever new materials are to be used.

Materials shall be transported, handled and stored on the site or elsewhere in such a manner as to prevent damage, deterioration, or contamination.

Cement

Cement shall be from an approved source and shall be sulphate-resistant cement complying with BS 4027 or Ordinary Portland cement complying with BS 12.

High alumina cement or blast-furnace slag cement shall not be used.

Cement stored on site shall be protected from the weather and raised from the ground.

Cement shall be used in the order in which it is delivered.

Cement temperature shall not exceed 60°C when used.

Cement shall not be used after 6 months from its manufacture date or after it has been held in store for 3 months, unless it is tested and satisfies the relevant BS or ASTM Standards. Each re-test certificate shall be valid for a period of 6 months.

Each consignment of cement delivered to the site must be accompanied by a certificate showing the place and date of manufacture and the results of standard tests carried out on the bulk supply from which the cement was manufactured.

Notwithstanding the above requirements and tests, the Engineer may reject any cement which in his opinion is unsatisfactory for any reason whatsoever.

Water

Water for use in concrete, mortar mixing and curing shall be obtained from an approved source and shall be of a quality as not to affect the setting time, strength, durability of the concrete or mortar, or the appearance of hardened concrete or mortar by discolouration or efflorescence, nor the reinforcement at any age of the concrete or mortar.

Water shall be clean, potable, blended or unblended, with a pH between 5.0 and 9.0 and shall be tested in accordance with BS 3148. The following limits shall not be exceeded:

Total dissolved solids (TDS) not greater than 2000 ppm

Suspended solids not greater than 2000 ppm

Chlorides (Cl) not greater than 500 ppm

Sulphates (SO₃) not greater than 1000 ppm

Alkali (HCO₃/CO₃) not greater than 1000 ppm.

Water shall be stored in approved, clean containers which are protected from sun, wind, dust, organic contamination or from contamination by any other source.

Aggregates

Materials used as aggregates shall be obtained from a source known to produce aggregates satisfactory for concrete and shall be chemically inert, strong, hard, durable, of limited porosity and free from adhering coatings, clay lumps, coal and coal residues and organic or other impurities that may cause corrosion of the reinforcement or may impair the strength or durability of the concrete. Aggregates shall be natural gravels or crushed stone complying with BS 882/1201.

The aggregates used in the concrete mix shall not cause damage or weakening of the concrete.

Aggregates shall be stored and handled only on approved impervious free draining platforms with concrete block walls separating different grades. Stock piles shall be built in 1.50 m (maximum) layers and segregation of the aggregates shall be prevented. All aggregates which have become segregated shall be removed. All aggregates stored on site shall be covered with approved sheeting until required for mixing. Aggregates which have become contaminated whilst stored on site shall be removed.

Fine Aggregates

Sand for concrete shall comply with BS 882 Grading Limit M or F. It shall not contain more than 5% voided shells (as determined by direct visual separation).

The maximum permitted concentration of chlorides and sulphates expressed as percentage by weight of dry sand are 0.06% (as acid soluble Cl-) and 0,4% (as acid soluble SO₃) respectively. These limits may be exceeded provided that the total chloride and sulphate content of the mix do not exceed the limits given in 5.2.5.

The blending of crushed stone fines may be permitted provided that the blended product meets all the requirements for fine aggregates. Materials finer than 75 micron size - BS 410 test - shall not exceed 5% by weight. If the materials finer than 75 microns - according to BS 410 test - consist of the dust of fracture, essentially free of clay or shale, the limit can be increased to 7% by weight.

Absorption shall not exceed 5% (BS 812).

Magnesium sulphate soundness weight loss shall not exceed 10% after five cycles (ASTM C88).

When tested for organic impurities the colour shall be lighter than the reference standard colour (ASTM C40).

When tested for potential alkali reactivity (ASTM C 227) the expansion shall be less than 0.05% at 3 months.

Alternatively the potential alkali reactivity can be tested in accordance with ASTM C 289 and the evaluation done in accordance with ASTM C 33, Appendix XI.

Coarse Aggregates

Coarse aggregates for concrete shall be hard and durable stone, produced by mechanical crushing, e.g. by jaw, impact or cone crushers or other mechanical means to the approval of the Engineer.

The maximum permitted content of chlorides and sulphates by weight of dry aggregates are 0.03% (as acid soluble Cl-) and 0,4% (as acid soluble SO₃) respectively. These limits may be exceeded provided that the total chloride and sulphate content of the mix do not exceed the limits given in 5.2.5.

Unless otherwise approved by the Engineer, coarse aggregate for use in all classes of concrete shall be provided for batching as single sized aggregates of 40 mm, 20 mm and 10 mm nominal size proportioned in such ratio as to give a uniform gradation.

Absorption shall not exceed 2.5% (BS 812).

Flakiness index and elongation index shall not exceed 25% (BS 812).

Coarse aggregate shall not contain more than 5% soft fragments (ASTM C 235).

Magnesium sulphate soundness weight loss shall not exceed 10% after five cycles (ASTM C88).

When tested for potential alkali reactivity (ASTM C 227) the expansion shall be less than 0.05% at 3 months.

Alternatively the potential alkali reactivity can be tested in accordance with ASTM C 289 and the evaluation done in accordance with ASTM C 33, Appendix XI.

The 10% fines value shall not be less than 100 kN (BS 812). Alternatively the aggregate impact value shall not exceed 30% tested in accordance with BS 812.

Admixtures

Any use of admixtures and additives shall comply with BS 5075 and shall be approved by the Engineer.

Approved admixtures shall be used in accordance with the manufacturer's recommendations, shall be dispensed by approved equipment, which provides a visible means of checking each dose, and shall comply with the relevant British Standards.

The proposed dosages, the manufacturer's technical information and the results of trial mixes shall be submitted to the Engineer before approval is given.

When more than one admixture is to be used in a concrete, the compatibility of the various admixtures shall have been ascertained by standard tests and certified by the manufacturer(s).

No admixture containing chloride or nitrate shall be used.

Total Chloride and Sulphate Contents

The total acid soluble chloride content of the concrete mix shall be determined in accordance with BS 1881 modified by using excess acid (Volhard Titration method). Chlorides from all sources shall be included.

For concrete made with sulphate-resistant cement the maximum total acid soluble chloride content expressed as % of chloride ion by weight of cement shall be 0.200%.

The maximum total acid soluble sulphate content of the concrete mix from whatever source expressed as % SO₃ by weight of cement shall be 4.0.

Reinforcement

Steel reinforcement used in reinforced concrete shall comply with the following British Standards as appropriate:

BS 4449, "Hot rolled steel bars for the reinforcement of concrete"

BS 4461, "Cold worked steel bars for the reinforcement of concrete"

BS 4483, "Steel mesh fabric for the reinforcement of concrete".

High yield steel bars shall be of type 2.

Deformed bars of high tensile steel may be used only if approved by the Engineer.

The Contractor shall furnish the Engineer with copies of the manufacturer's certificates of tests for the steel reinforcement to be supplied.

If required by the Engineer, the Contractor shall submit samples to, and obtain test certificates from, a recognized testing laboratory approved by the Engineer.

All reinforcement shall be clean and free from pit corrosion, loose rust, mill scale, paint, oil, grease, adhering earth, or any other material that may impair the bond between the concrete and the reinforcement or that which may cause corrosion of the reinforcement or may be detrimental to the quality of the concrete.

Liquid Membrane - Curing Compound

Liquid membrane - curing compound shall comply with ASTM C 309, Type 1, unless another type is accepted by the Engineer.

Requirements / Workmanship

Formwork

Design and Construction

Formwork for concrete shall be rigidly constructed of approved materials and shall be true to the shape and dimensions described on the working drawings. Formwork shall be constructed of material or lined with

materials as may be necessary to achieve the finishes specified in this section. The formwork design shall be submitted to the Engineer for review before construction commences.

Faces in contact with concrete shall be free from adhering grout, projecting nails, splits, or other defects. Joints shall be sufficiently tight to prevent the leakage of cement grout and to avoid the formation of fins or other blemishes. Faulty joints shall be caulked. 20 mm by 20 mm chamfers shall be formed on the external corners of concrete members, unless otherwise specified. Internal corners shall similarly be provided with 20 mm fillets.

If openings of the formwork for the escape of water used for washing out are made, they shall be formed so that they can be conveniently closed before placing the concrete.

Connections shall be constructed to permit easy removal of the formwork and shall be strong enough to retain the correct shape during consolidation of the concrete.

Metal ties or anchors within the form shall be so constructed as to permit their removal to a depth of at least 50 mm from the face without injury to the concrete. All fittings for metal ties shall be of such design that upon their removal the cavities which are left will be of the smallest possible size. Spreader cones or ties shall not exceed 25 mm diameter. The cavities shall be filled with cement mortar and the surface left sound, smooth, even and uniform in colour.

Formwork shall be true to line and braced and strutted to prevent deformation under the weight and pressure of the unset concrete, constructional loads, wind, and other forces. Beams spanning more than 3 metres shall have an upward camber of 1½ mm per m of span.

Concrete shall normally not be placed in lifts deeper than 3 m. For lifts higher than 3 m openings for placing the concrete shall be provided in order to avoid segregation of the concrete.

An approved mould oil or other material shall be applied to faces of formwork to prevent adherence of the concrete. Such coatings shall be insoluble in water, non-staining, and non-injurious to the concrete. Liquids that retard the setting of concrete shall be used only when approved. Mould oil, retarding liquid, and similar coatings shall be kept from contact with the reinforcement or previously cast concrete.

Before any concrete is placed, forms shall be properly cleaned by washing out with water and/or air under pressure to remove sawdust, shavings, metal and other foreign matter. All water shall then be drained and mopped out from the formwork. In no case shall concrete be placed in the forms until such forms have been approved by the Engineer. Such approval shall not relieve the Contractor of his responsibility for the formwork.

Details of any fixtures to be cast into the concrete shall be forwarded to the Engineer. No fixtures shall be attached to the concrete by shot-firing without prior permission of the Engineer. Notwithstanding any such authorization, the Contractor shall take full responsibility for any damage caused to the structure and make good to the satisfaction of the Engineer.

Construction Tolerances

The tolerances within which concrete work shall be constructed are as summarized below:

Item of construction Permissible deviation (mm)

Position in plan: ± 20 mm

Size and shapes:

Thickness of walls and slab ± 6 mm

Columns and beams ± 6 mm.

Dimensions of foundations:

+ 50 mm

- 0 mm.

Variation from plumb:

(vertically - up to 5 m) ± 12 mm.

Levels to slabs and beams:

± 10 mm.

Holes:

Placement: ± 10 mm

Sizes: ± 3mm.

Cast-in items:

Placement: ± 10 mm

Distance between interconnected items: ± 2 mm.

The Contractor is responsible for keeping the deviations of the finished concrete structure within the limits given, and any rectification of work not constructed within the tolerances set out shall be entirely at the expense of the Contractor.

Removal of Formwork

Formwork shall be removed by gradual easing without jarring. Before removal of the formwork the concrete shall be examined and removal shall proceed only in the presence of a competent supervisor and only if the concrete has attained sufficient strength to support its own weight and any load likely to be imposed upon it. The following striking time given in maturity days are the absolute minimum that will be permitted:

Soffits 10 days

Sides 4 days.

Loads shall not be placed on concrete before the following periods after casting:

Columns, walls, beams, slabs, etc. 14 days

Foundations 10 days.

The Contractor shall record the date upon which the concrete is placed in each part of the work, and the date on which the formwork is removed from there. The assessment of the period elapsing between placing the concrete and removing the formwork and consequences arising there from shall be entirely the Contractor's responsibility.

Surface Finishes

Type 1 Finish - Standard Rough Form Finish:

Provide standard rough form finish to all formed concrete surfaces, that are to be concealed in the finished work or by other construction, unless otherwise indicated or specified.

Standard rough form finish shall be the concrete surface having the texture imparted by the form facing material used, with defective areas repaired and patched as specified, and all fins and other projections exceeding 5 mm in the height rubbed down with hard blocks.

Type 2 Finish - Standard Smooth Finish:

Provide standard smooth finish for all formed concrete surfaces, that are visible or in contact with sewage.

Standard smooth finish shall be the cast concrete surface as obtained with a smooth form facing material, with defective areas repaired and patched and all fins and other projections on the surface completely removed and smoothed.

Related unformed surfaces as top of walls, horizontal offsets to be struck off smooth and finished with a texture matching the adjacent formed surfaces. Apply float finish or trowel finish to provide smooth uniform surfaces.

Type 3 Finish - Monolithic Slab Finish:

Provide scratch finish to monolithic slab surfaces which are not specified as monolithic smooth slab finish.

After placing slabs, plane the surface to a tolerance not exceeding 6 mm in 3 m, when tested with a 3 m straight-edge. After levelling, roughen the surface before the final set with stiff brushes, brooms or rakes.

Type 4 Finish - Monolithic Smooth Slab Finish:

Provide a smooth finish to monolithic slab surfaces which are not intended to be finished with flooring materials or which are to be run over by a sludge scraper.

After placing the slabs, the surface has to be levelled and trowelled smooth in one operation with the casting. The tolerance on the surface plane should not exceed 6 mm in 3 m, when tested with a 3 m straight-edge.

Reinforcement

General

The Contractor shall ensure that all reinforcement is checked by a competent person. The Contractor shall notify the Engineer well in advance about portions of reinforcement work ready for inspection and shall keep a detailed record of the planning and control of the reinforcement work.

Storage of Reinforcement

Reinforcement shall be stored on properly constructed racks at least 150 mm above ground level. The storage, cutting and bending of steel reinforcement shall be carried out under cover on an approved, free draining concrete platform. The method of storing shall be such as to prevent contamination or damage by weather or accident. Steel shall be protected from humidity when stored.

Handling of Reinforcement

Sheets of mesh fabric shall be flat unless specified as bent and any tendency to curve or twist shall be corrected by the Contractor before fixing. Mesh fabric shall not be supplied in rolls.

Cutting and Bending

Dirt, rust, concrete, scale, paint, oil, grease, salts, etc. shall be removed from the reinforcement by sand blasting.

Reinforcement shall be bent when cold by hand or by using an approved hand or power operated bending machine. When bending, the reinforcement should be subjected to a constant even load and not an impact load.

Welding of reinforcement will only be allowed with the specific written permission of the engineer.

Bars incorrectly bent shall be used only if the means used for straightening and re-bending be such as not to damage the steel. No reinforcement shall be bent when in position in the works without approval, whether or not it is partially embedded in hardened concrete.

Bar types, sizes and placement shall be as shown on the drawings. Bending dimensions shall be in accordance with the bar bending schedules and BS 4466.

The minimum diameter of the former shall be:

For mild steel (BS 4449):	4 x d
For high yield steel (BS 4449):	6 x d.

Fixing Reinforcement

Bars in contact shall be firmly secured to each other with approved binding wire or proprietary clips of a type approved by the Engineer. Binding wire shall be 16-18 gauge soft iron wire free from rust or other contaminants. The reinforcement shall be fixed accurately in position so that the reinforcement is in the correct position in relation to the formwork to give the specified concrete cover. The reinforcement shall be securely

fixed in position so that it will not be displaced during the passage of the Contractor's traffic, the placing and compaction of the concrete or any related operations.

The correct cover shall be maintained by the use of plastic spacers or other approved means. If approved for use, concrete spacing blocks shall be machine pressed, or, if manufactured on site, shall be made from a mix of one part cement and two parts of sand. Site manufactured blocks shall be well compacted and water cured for a minimum of 7 days after casting and shall have a 10 minute absorption of less than 3.2% by weight. Concrete spacers shall be comparable in strength, durability and appearance to the surrounding concrete. Any wire cast into the spacer blocks shall be positioned well away from the exposed surface and shall be galvanized. Spacers fixed to parallel reinforcement bars shall not be located in a line across a section. Timber, stone or metal spacers shall not be used.

The top reinforcement in slabs shall be rigidly supported by mild steel chairs from the bottom reinforcement. Plastic coated or galvanized steel chairs shall be used where in contact with exposed concrete surfaces. Chair spacing shall be at maximum 1.50 m centres in both directions.

Starter bars to walls must be securely fixed to the reinforcement in the parent concrete and accurately located to maintain the specified cover. Reinforcement embedded in hardened concrete shall not be bent.

Reinforcement cages assembled before fixing shall be protected against the weather and shall be stored and transported carefully so that no distortion or contamination may occur.

Concrete shall be placed within 3 days of fixing reinforcement.

Laps and Joints

Laps are to be staggered in such a manner that maximum one third of the bars are lapped in the same section, otherwise the lap length shall be increased by 50%.

Concrete

Grades of Concrete

Grades of concrete shall be in accordance with BS 5328. With 20 mm maximum nominal aggregate size the requirements are:

Concrete Class	Minimum Cement Content	Maximum free water/cement ratio	Target mean free water/cement ratio	Characteristic cylinder strength at 28 days
G 35	325 kg/m ³	0.45	0.45	35 N/mm ²
G 25	275 kg/m ³	0.50	0.50	25 N/mm ²
G 15	225 kg/m ³	-	-	15 N/mm ²

If 40 mm maximum nominal aggregate size is used, the minimum cement content can be reduced by 30 kg/m³.

If 10 mm maximum nominal aggregate size is used, the minimum cement content shall be increased by 40 kg/m³.

The maximum cement content shall not exceed 400 kg/m³.

The concrete shall be capable of being transported and readily compacted by internal vibrators into a dense impermeable mass without segregation, bleeding or plastic cracking. Subsequently, the concrete shall be durable and free from crazing, thermal cracks and drying shrinkage cracks.

The slump shall be kept to the minimum compatible with approved placing and compacting requirements, but in no case shall the concrete be placed at a slump of more than 160 mm or less than 40 mm, determined in accordance with BS 1881, without the prior approval in writing of the Engineer.

Concrete mixes shall have the cement content necessary to meet the specified water-cement ratio, the workability and the compressive strength requirements.

Concrete mixes shall have the lowest possible sand content to meet the workability and watertightness requirements.

Concrete mixes shall be made with a target air-content equal to 6%. The air-content in any mix may not be less than 4% or above 8%.

In-situ concrete shall be dense and well-compacted to a minimum of 98% of the density of the relevant test cylinders.

Concrete Mixes

Mix Design

The Contractor will be responsible for the final mix design for each class of concrete. Six weeks prior to the commencement of concreting operations the Contractor shall submit to the Engineer for approval samples and test reports proving compliance with this specification of all materials to be used in the various mixes together with the mix design and the proposed weights of materials to be incorporated in the mixes.

Trial Mixes

The Contractor shall perform a trial mix on site in the presence of the Engineer for the various classes of concrete specified, using the proposed plant, equipment and batching and mixing methods.

No structural concrete shall be placed in the works until the relevant mix has been approved by the Engineer. Before any grade of concrete is placed in the works three trial mixes of the grade shall be made to the submitted mix proportions and from each mix six cylinders shall be prepared and cured in accordance with BS 1881, parts 108 and 111, three for testing at 7 days and three at 28 days by a laboratory approved by the Engineer.

The mix proportions shall be accepted for use in the works only if the 28 days cylinder strengths exceed the characteristic strength compliance requirements by at least 4 N/mm².

These requirements to perform trial mixes may be relaxed by the Engineer on production of satisfactory evidence of trial mixes previously approved with the same materials used in the same proportions.

Where the maximum free water/cement ratio is specified preliminary tests shall be made to establish the relationship between free water/cement ratio and the slump. A maximum allowable slump value shall be established which includes an appropriate tolerance for variability of manufacture, sampling and testing.

The preliminary tests shall be repeated and revised and maximum slump values established whenever necessary due to a change in materials or batching.

When the mix has been approved, no variations shall be made in the proportions, the original source of the cement and aggregates or in the type, size and grading of the latter without the consent of the Engineer who may require further tests to be made.

No approval by the Engineer of a trial mix shall relieve the Contractor of the responsibility of maintaining the working strength required. The Engineer may also require practical tests to be made on the site by filling trial moulds to confirm the suitability of the mix for the works. In these tests, the type of plant used and the formwork face to the mould shall be similar in all respects to those intended for use in the works.

Additional Trial Mixes

During production the Engineer may require additional trial mixes to be made before a substantial change is made in the materials or in the proportions of the materials to be used.

Compliance and Quality Control

General

For assessment of strength a sample shall be taken from a randomly selected batch of concrete by taking a number of increments in accordance with BS 1881. The minimum sampling frequency shall be one set per concrete mix per day of concreting. The samples shall be taken at the site, whenever practicable, to be taken at the point of discharge from the mixer. Four test cylinders from each sample shall be prepared in accordance with BS 1881 under supervision of the Engineer.

The test cylinders shall be cured in accordance with BS 1881. Two cylinders will be crushed at 7 days and used for early assessment of the concrete as a guide only.

The test cylinders shall be delivered to, and tested by, a laboratory approved by the Engineer. Certified copies of the test results shall be supplied to the Engineer.

Compliance with the characteristic strength will be assumed only if the conditions given below are met:

The average strength determined from any group of four consecutive test results exceeds the specified characteristic strength by 3 N/mm²

The strength determined from any test result is not less than the specified characteristic strength minus 3 N/mm².

The cost of any given mix, poured between the taking of two consecutive samples shall be represented by the former sample.

Tests covering all specified properties of all materials to be used in the mixes shall be carried out at a frequency necessary to prove continuous compliance for each property.

The cost of taking and testing concrete samples and materials required to ensure compliance with this specification shall be borne wholly by the Contractor.

Should the concrete supplied not comply with the characteristic strength requirements, the Engineer may instruct the removal and replacement of the concrete or other remedial action to be taken. Any such removal or remedial action will be carried out at the Contractor's own expense and payment will not be made for such elements until the removal and replacement or remedial action is completed to the satisfaction of the Engineer.

Records

The Contractor shall keep a complete record of the work of concreting showing the time and the date of placing the concrete in each portion of the work.

The following information for testing shall be recorded for each cylinder:

Class of mix

Site mixed or ready-mix and supplier

Slump

Time of mixing and concreting

Location in structure of concrete

Cylinder identification marks

Temperature of concrete.

All cylinders shall be clearly marked prior to leaving site and no cylinder shall leave the site unless documentation complying with the above has been supplied to the Engineer.

If instructed by the Engineer, the temperature of the concrete sample shall be determined.

Mixing of Concrete

Concrete shall be mixed in accordance with BS 5328.

Concrete shall be weight batched and mixed in an approved mixing machine fitted with an approved water metering device. Volume batching will not be allowed.

The weighing and water-dispensing mechanisms shall be maintained in good order. Their accuracy shall be maintained within the tolerances described in BS 1305 and checked against accurate weights when required by the Engineer.

The weights of cement and each size of aggregate as indicated by the mechanisms employed shall be within a tolerance of $\pm 2\%$ of the respective weights per batch agreed by the Engineer. The weights of the fine and coarse aggregates shall be adjusted to allow for the free water contained in them. The water to be added to the

mix shall be reduced by the quantity of free water contained in the fine and coarse aggregates, which shall be determined by the Contractor by a method approved by the Engineer immediately before mixing begins.

Unless otherwise agreed by the Engineer, concrete shall be mixed in a batch type mixer manufactured in accordance with BS 1305 or in a batch type mixer, a specimen of which has been tested in accordance with BS 3963 and having a mixing performance within the limits of Table 6 of BS 1305. Where appropriate the batch capacity, method of loading, mixing time and drum speed shall conform to the details furnished in accordance with the requirements of BS 3963 for the mix which corresponds most closely to the mix proportions being used. The mixing blades of pan mixers shall be maintained within the tolerances specified by the manufacturer of the mixer, and the blades shall be replaced when it is no longer possible to maintain the tolerances by adjustments.

Mixers which have been out of use more than 30 minutes shall be thoroughly cleaned before any fresh concrete is mixed in that machine. Mixing plant shall be thoroughly cleaned before changing from one type of mix to another or before changing from one manufacturer of cement to another.

Controls shall be provided to ensure that no additional water can be added during mixing. The entire batch shall be discharged before the mixer is recharged. In no case shall the mixing time be less than 1½ minutes. A concrete slab with adequate drainage shall be provided as a working platform unless alternative arrangements are specially permitted by the Engineer in writing.

Distribution and Placing of Concrete

General

The recommendations of ACI-305-1977, "Hot Weather Concreting" shall be taken into account throughout the Works.

The Contractor shall notify the Engineer in writing 24 hours before pouring concrete, stating the times of pouring, and shall not commence pouring operations without his written approval of excavations, formwork, reinforcement, arrangements for plant and materials on site, installation of accessories, etc. Any concrete placed before obtaining such approval shall be rejected. The Contractor shall note that methods of transporting and placing of concrete which necessitate the carrying and lifting of concrete by manual labour will not be allowed. For major concreting works, the means of transport from mixer to place of pouring, shall be semi-mechanized, i.e. vertical transport by crane, hoist or similar and horizontal transport by dumper, wheelbarrows or similar.

The formwork or area of deposition shall be cleaned as specified. Constructional plant and materials required, or which may be required, during the concreting work and for curing shall be on site and fully prepared before concreting commences. All accessories shall be installed and formwork for holes, chases, etc. shall be provided as specified. Only after all these preparations and other relevant requirements have been completed, shall the Engineer's written approval to place concrete be given.

Concrete shall be transported, placed and spread by approved means and in such a way as to prevent segregation.

Concrete with a temperature above 32°C or below 5°C or with a slump less than 40 mm or more than 160 mm shall be rejected. Concrete not placed within 60 minutes of the commencement of mixing or before starting its initial set shall be rejected.

The temperature of concrete having a cement content > 450 kg/m³ shall not exceed 26°C measured at discharge from the mixer.

Concrete shall be transported and compacted into a dense impermeable mass without segregation or bleeding or cracking to ensure that when hard, it is durable, un-cracked and uncrazed.

Except where otherwise agreed by the Engineer concrete shall be deposited in horizontal layers to compacted depth not exceeding 300 mm. Concrete shall be deposited as near as possible to its final position to avoid rehandling.

Unless otherwise agreed by the Engineer concrete shall not be dropped into place from a height exceeding 3 metres. When trunks or chutes are used they shall be kept clean and used in such a way as to avoid segregation.

The Contractor shall not place concrete in standing or running water.

Concrete shall be deposited continuously. No concrete shall be placed against concrete which has hardened sufficiently to cause seams, planes of weakness or cold joints.

If for unforeseen reasons it is necessary to stop concreting before completion of the pour then construction joints as specified shall be formed and further concreting shall be suspended for at least twenty four hours.

Cutting and chasing of hardened concrete shall not be permitted without the Engineer's approval. The Contractor shall provide openings, mortices, chases, sleeves, etc. and fix bolts, anchors, etc. in concrete as work proceeds and support embedded items against displacement. Items cast shall have all voids filled with readily removable material to prevent concrete ingress.

The Contractor shall clean and wet then fill tie holes solid with patching mortar. When required by the Engineer honeycombed and other defective concrete shall be cut back to sound concrete, with perpendicular or slightly under cut edges and shall be prepared in an approved manner.

The Engineer will reject any concrete which he considers to have been inadequately mixed or in which the ingredients have segregated or which is no longer capable of being effectively placed or compacted.

All receptacles used for the transport and deposition of the concrete shall be kept clean and thoroughly washed out after stopping work and at the end of each shift.

The Contractor shall obtain the Engineer's permission before concreting in air shade temperatures which exceed 30°C and shall take approved precautions (use admixtures, cool ingredients, continuously spray formwork with water, erect sunshades, etc.) to prevent early setting, etc. and to ensure that the concrete temperature when placed does not exceed 32°C.

No concreting shall be carried out in heavy rain.

Casting Concrete Directly Against Vertical Rock Surfaces

In view of the nature of work the Engineer will permit concrete to be placed directly against vertical cut rock faces. The Contractor shall remove all loose particles and dust using an air jet or other approved means and shall ensure that there is no contamination of the concrete.

Compaction

Concrete must be carefully and thoroughly compacted during placing to ensure that it completely surrounds the reinforcement, fills the formwork and excludes voids.

All concrete shall be compacted by using internal vibrators. Vibrators must be used by operators experienced in their use. Concrete is to be vibrated for the minimum time necessary for thorough consolidation, and the Contractor shall ensure that excessive vibration, leading to segregation, is avoided. Vibrators does not touch the reinforcement or formwork.

Internal vibrators shall be of the immersion type with a frequency of not less than three thousand vibrations per minute, and sufficient amplitude to consolidate the concrete effectively. The Contractor shall provide at least fifty percent duplication of all vibration equipment as stand by during any period of concreting.

Vibrators shall not be employed to move the concrete within the formwork.

Curing

Freshly deposited concrete shall be protected from premature drying and excessively hot or cold temperatures and shall be maintained with minimal moisture loss at a relatively constant temperature for the proper hydration of the cement and hardening of the concrete.

The materials and methods of curing shall be subject to approval. Concrete surfaces not in contact with forms, shall be cured before any risk for plastic shrinkage cracking or drying out of the concrete surface may occur by one of the following materials or methods:

(a): Polythene membrane shall be laid direct on to the concrete in unbroken sheets with substantial close fitted lap joints. Sheets shall be weighted with timbers to prevent dry winds blowing under the membrane

(b): Spray applied curing membrane and curing compounds which shall be of approved manufacture and type and be of the maximum retentivity type. Curing compounds used shall have reflective properties; they shall be

applied in accordance with the recommendations of the manufacturer and are to be used with extreme caution on any surfaces against which additional concrete or other finishing materials are to be bonded and shall not adversely affect the concrete.

Application of curing water shall not be able to affect the finished fresh concrete surface by dilution of the top layer.

Curing shall be continued for a period of at least 7 days when method (a) above are used. Rapid drying at the end of the curing period shall be prevented.

The Engineer may instruct, in hot, dry weather, that a combination of the above methods shall be used.

Exposed horizontal surfaces of slabs in hot windy weather may require additional protection between the initial compaction and final finishing stages to ensure that the concrete is not exposed for more than twenty (20) minutes after placing.

Formwork exposed to direct sunlight during the curing period shall be shaded.

Steel forms heated by the sun and all wood forms in contact with the concrete during the curing period shall be kept wet. If forms are to be removed during the curing period, one of the above curing materials or methods shall be employed immediately. Such curing shall continue for the remainder of the curing period.

The use of any of these methods of curing shall be subject to the requirements of the Engineer for meeting a satisfactory curing result. Any method not giving satisfactory results shall be discontinued and another, to the preference of the Engineer, be applied instead.

Joints

Additional joints may be accepted when discussed with the Engineer at least 7 days before work commences.

Construction joints shall be formed in either horizontal or vertical planes and located in the work to suit working stresses. They shall be so located and the quantity of concrete placed at any one time shall be so limited in size and shape as to minimize shrinkage and temperature effects. All reinforcing steel shall be continued across construction joints except where shown on the drawings. The surface of the concrete at all joints shall be straight and shall be thoroughly cleaned with water and air under pressure, to expose aggregate. The cleaned surfaces shall be well wetted and a cement grout wash applied; laying shall commence before the grout has set. Approved waterstops shall be provided in joints subject to water pressure, except in horizontal joints in walls.

Waterstops

General

Waterstops shall be welded or glued together as to form a continuous strip, both horizontally and vertically. Laps will not be accepted.

Installation of waterstops

Waterstops shall be carefully placed and maintained in position during concreting and compaction operations.

Concrete shall be carefully compacted around the waterstops so as to leave no cavities.

Quality Requirements for Structures

The Contractor shall incorporate the following quality requirements in all structures included in the works.

Structural lay-out

All pipes below the bottom slabs - except for drain pipes if any - shall be cast-in and reinforced together with the slab. The performance requirements set out in this specification document shall be met for the design of the structure. Proposals for the design of the structure should be conformant to the development permit plans submitted. No variations in architectural design are allowed without prior approval of the project leader or his appointed representative.

Concrete

Concrete Strength

The concrete strength requirements for the structures are given below:

Concrete mix - C 30:

Characteristic strength: $f_{ck} = 30 \text{ N/mm}^2$ cube strength
Cement: OPC
Exposure Class: Aggressive/Moderate
Max. free water/cement ratio: 0.45
Nominal maximum size of aggregates: 32 mm

Concrete G 30 shall be used for all concrete works above foundation level.

Concrete mix - C 25:

Characteristic strength: $f_{ck} = 25 \text{ N/mm}^2$ cube strength
Cement: Low alkali and high sulphate resistant cement
Exposure Class: Moderate environment
Max. free water/cement ratio: 0.50
Nominal maximum size of aggregates : 32 mm

Concrete G 25 shall be used for all foundation works

Concrete mix - C 15:

Characteristic strength: $f_{ck} = 15 \text{ N/mm}^2$ cylinder strength
Cement: Ordinary Portland Cement
Exposure Class: Passive environment
Nominal maximum size of aggregates: 32 mm

Concrete G 15 shall be used for blinding layer.

Joints

General

In order to incorporate the effects from thermal action, shrinkage and creep the Contractor should make construction joints or contraction joints in accordance with this specification. The Contractor shall make his design calculations in accordance with the intended location of joints. Crack widths to conform to BS8110 and relative exposure conditions.

Construction Joints

The reinforcement is passing through the joint. The purpose of this type of joint is to separate the structure into sections equal to a size which easily can be casted. In critical sections with a high stress the joints shall be made with an approved waterstop.

The surface of the concrete shall be thoroughly cleaned. The surface layer shall be completely removed with a steel brush to expose the aggregates.

The hardened concrete shall be watered continuously 1 hour prior to casting the adjacent concrete. When casting the hardened concrete surface shall be saturated but free from water on the surface.

Cement grout and adhesives shall not be used at joints.

Contraction Joints

Are not allowed in the works.

Expansion Joints

As directed by the Architect in Charge

Standards

Other Reinforced Concrete Structures

Other structures shall be designed in accordance with British Standard BS 8110: Part 1: Code of practice for design and construction, Part 2: Code of practice for special circumstances and Part 3: Design charts for singly reinforced beams, doubly reinforced beams and rectangular columns.

BUILDERS WORK

General references

"Policy and Design guidance", issued by Malta Environmental & Planning Authority.

Steel Works

Steel Works: refer to section "Reinforcement"

Masonry Works

General

All masonry works in the project shall be carried out in franka (globigerina limestone) or hollow concrete blocks, as instructed by the architect in charge.

The work to be carried out by the masonry team comprises the following:

Cleaning all loose material/mud and any rock trimming ready to receive foundations where required

Laying foundation walls of the correct specified thickness, and level where required

Laying of horizontal and vertical damp proof course in accordance with the regulations laid down by the Sanitary Authorities

Construction of single/double masonry walls on foundations

Construction of concrete/limestone block walls

Formation of sills, jambs, lintels, ventilators, special masonry features and all other items which normally form part of constructed buildings

Finishing of all parapet walls.

Materials

Only best quality "franka stone" from approved sources, free from all defects shall be used. Any stone showing blue markings (swaba) and/or any other defects on the exposed face, or whose edges or corners have been chipped, shall be rejected. Should any such stones be used, the Engineer shall have the power to remove and replace such work at the Contractor's expense. The Contractor shall also be bound to replace any defective materials in or parts of the existing works by proper materials and/or workmanship as directed by the Engineer.

The franka stone blocks to be used have to be similar in texture and have the stonework already placed on site.

Concrete blocks must be of the best quality and of standard sizes.

Mortars

Mortars shall be proportioned by volume. The ingredients shall be measured separately in approved gauge boxes filled and struck without consolidation.

Proper mixing, shall be carried out in an approved way. No mortar which has been mixed for more than two hours shall be used, or knocked up for use. No water is to be added after mortar has been mixed.

Mortar for laying masonry is to be composed of one part cement, two parts crushed franka stone dust and six parts sand.

Cement

Cement shall be ordinary portland cement of approved manufacturing complying with current British Standards.

Crushed Franka Stone Dust

Crushed franka stone dust is to be composed solely of *xahx* composition. It has to be free of any contaminants like fertile soil, earthy material etc. The material to be used has to be of similar colour as the stone blocks being used.

Sand

Sand shall be clean sharp natural sand or crushed stone free from earthy matter and excessive dust.

Water

Water shall be clean potable water, preferably piped direct from the water services corporation supply or of similar quality.

Requirements / Workmanship

Masonry Walls

Masonry Walls shall be truly perpendicular. Each block shall be well wetted before laying and shall be bedded and jointed in mortar as described, with beds and joints flushed up and grouted solid as work proceeds.

The bond shall be such that no vertical joint in course is less than 11 cm from a similar vertical joint in the course above or below. Bed joints shall not be thicker than 12 mm and vertical joints not wider than 6 mm. Walls shall be carried up evenly such that each course and bed joint is 27.5 cm high.

Two Skin Masonry Works

Double masonry walls shall be constructed under the same requirements and tolerances applied for single stone walls.

The inner and outer skin are to be tied together with stainless steel wall ties spread at 900 mm horizontally and every two courses vertically with the spacing staggered. At openings for doors and windows the cavity shall be closed as indicated by returning the masonry. Additional wall ties shall be built in adjacent to the reveals at every second course. During construction the cavity shall be kept clear of all mortar dropping, rubble, and rubbish, be a batten or other approved means.

Wall Ties

Wall ties are to be in stainless steel similar to the ones being currently in use. All wall ties are to be kept in conformity to British Standards.

Internal Double Skin Construction

In Internal double wall construction bond stones have to be inserted during construction bond stones are to be laid every three metres and in alternate courses.

Quarry Faced masonry shall have the exposed faces of the stone left as sawn from the quarry bed.

Faced Masonry shall have the exposed faces of the stone, whether inside or outside the building carefully dressed, and after walling, carefully scraped to produce a perfectly smooth, true and even surface.

The mortar joints on exposed faces shall be struck to true clean lines, without mortar stains on the face of the masonry.

Blockwork shall be built in a single thickness block. Blocks shall be well wetted before laying and shall be bedded and jointed in mortar as described, with beds and joints flushed up and grouted solid as the work proceeds.

Damp Proof Courses

Damp proof courses (DPC's) shall be provided as indicated by the architect in charge.

Horizontal DPC to walls shall comply with the Malta Sanitary Regulations.

The membrane shall be continued 15 cm into the surrounding walls. All precautions shall be taken to prevent damage to the membrane from any cause.

Breeze Block Units

Breeze Blocks to be used (be in the single type or the double type) are to be of similar shape and of true squareness and equal height throughout. Size has to be compatible to design needs.

The source of supply of the breeze blocks has to be approved by the Engineer.

Quality Control

Tolerances

Maximum Variation from Unit to Adjacent Unit:	1 mm before sanding
Maximum Variation from Plane of Wall:	3 mm in 3 m and 6 mm in 6 m or more
Maximum Variation from Plumb:	3 mm per storey non-cumulative: 6 mm in two stories or more
Maximum Variation from Level Coursing:	2 mm in 1 m and 4 mm in 3 m: 9 mm in 10 m
Maximum Variation of Joint Thickness:	2 mm in 1 m
Maximum Variation form Cross Sectional thickness of Walls:	5 mm.

Thermal Insulation

The product to be used must not release or leach out any substances above existing limit values set in the following regulations:

- a) Substances regulates in the EU through the Regulations 842/2006/EC on fluorinated gases.
- b) Any substances or preparations that are classified according to Directive 199/45/EC and 6/548/CEE as carcinogenic (R40, R45, R49), harmful to the reproductive system (R60, R61, R62, R63), mutagenic (R46, R68), toxic (R23, R24, R25, R26, R27, R28, R51), allergenic when inhaled (R42), cause heritable genetic damage (R46), danger of serious damage to health by prolonged exposure (R48), possible risks of irreversible effects (R68) shall not be released.
- c) Any substances or preparations that are classified according to CLP Regulation (EC) 1272/20082 as carcinogenic (H350-351), harmful to the reproductive system (H360-361, mutagenic (H340-341), toxic (H300-H301, H310-H311, H330-H331, H411), allergenic when inhaled (H334), cause heritable genetic damage (H340), danger of serious damage to healthy by prolonged exposure (H372-373), possible risks of irreversible effects (H371) shall not be released.

Moreover, thermal insulation must have the following minimum thermal properties:

- Thermal conductivity: 0.033 W/mK
- Thermal resistance: 1.55m²K/W

Declaration agreeing to the Technical Specifications (Volume 3)

It is hereby being declared that the Technical Specifications listed in the Tender document are being adhered to and the works being requested shall be as per details set out in this call for tenders.

In the event that it is proved otherwise during the execution of the contract it is hereby being consented that – apart from the penalty provisions, and otherwise, stipulated in the contract - the contract is terminated with immediate effect and that no claim for damages or compensation be raised by us.

Signature

I.D. No.

Name of bidder/contractor

Date

VOLUME 4 - FINANCIAL BID

Unit-Price Contracts

VOLUME 4

BILL OF QUANTITIES

1. Preamble

Tenderers must price each item in the bill of quantities separately and follow the instructions regarding the transfer of various totals in the summary.

The bill of quantities must be read with all the other contract documents and the Contractor shall be deemed to have thoroughly acquainted himself with the detailed descriptions of the works to be done and the way in which they are to be carried out. All the works must be executed to the satisfaction of the Engineer.

1.1. Quantity of items

The quantities set forth against the items in the bill of quantities are an estimate of the quantity of each kind of the work likely to be carried out under the contract and are given to provide a common basis for bids. There is no guarantee to the Contractor that he will be required to carry out the quantities of work indicated under any one particular item in the bill of quantities or that the quantities will not differ in magnitude from those stated.

When pricing items, reference should be made to the conditions of contract, the specifications and relevant drawings for directions and descriptions of work and materials involved.

The quantities given in the bill of quantities are provisional and reflect the estimates made at the time of approval to provide a basis for this document and tenders. Tenderers must consider every aspect of the tender document carefully.

Any comments concerning the quantities must be made in the form of an attachment, following the system of itemisation, quoting the codes and brief descriptions, as in the present documents, including the rates and prices.

Save where the technical specifications or the bill of quantities specifically and expressly state otherwise, only permanent works are to be measured. Works will be measured net to the dimensions shown on the drawings or ordered in writing by the Engineer, save where described or prescribed elsewhere in the contract.

In adjusting extras or variations on the contract, works will be measured on the same basis as that on which the quantities were prepared. All works not specifically mentioned in the bill of quantities will be taken as included in the prices of various items.

Where, in the opinion of the Engineer, extra works cannot be properly measured or valued, the Contractor may, if so directed by the Engineer, carry out the work at the day work rates shown in the schedule of day work. All completed day work sheets must be signed by the Engineer on or before the end of the week in which the works are executed.

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

1.2. Units of measurement

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

Abbreviations used in the bill of quantities are to be interpreted as follows:

mm	means	millimetre
m	means	metre
mm ²	means	square millimetre
m ²	means	square metre
m ³	means	cubic metre
kg	means	kilogram
to	means	tonne (1000 kg)
pcs	means	pieces
h	means	hour
L.s.	means	Lump sum
km	means	kilometre
l	means	litre
%	means	per cent
N.d	means	nominal diameter
m/m	means	man-month
m/d	means	man-day

II. Terms Relating To Payments

The method for measuring completed works for payment must be in accordance with the Contract.

The provisional sums in the bill of quantities must be used in whole or in part at the discretion of the Engineer or as otherwise set out in the contract.

Each item in the bill of quantities for which payment is to be made in a lump sum, and for which no payment schedule is provided, must be paid after the work covered by the lump sum has been completed to the satisfaction of the Engineer.

III. Pricing

The prices and rates 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.

The rates and prices tendered in the priced bill of quantities will be quoted at the rates current prior to the date of submission.

Rates and prices must be entered against each item in the bill of quantities. The rates will cover all tax, duty or other liabilities, excluding VAT, which are not stated separately in the bill of quantities and the tender.

IV. Completing the bill of quantities

In the bill of quantities, rates and prices will be entered in the appropriate columns in Euro.

Errors will be corrected as follows:

- a) where there is a discrepancy between amounts in figures and in words, the amount in words will prevail; and
- b) where there is a discrepancy between the unit rate and the total amount derived from the multiplication of the unit price and the quantity, the unit rate as quoted will prevail.

V. Description Of Unit Prices

N.B - Three decimal points do not exist as currency; therefore such offers cannot be accepted. Offers are to be submitted up to two decimal points.

The tables that follow give the description of the rates (or unit prices) by using the relevant clauses of Volume 3 (Technical specifications).

BILL A - STRUCTURAL ALTERATIONS					
NOTES	QUOTED RATES ARE TO TAKE INTO CONSIDERATION ALL DOUBLE HANDLING OF MATERIAL AS WELL AS COMPLIANCE WITH RELEVANT STANDARDS, LEGAL NOTICES AND HEALTH AND SAFETY PROCEDURES. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING STRUCTURES AND HAS TO MAKE GOOD AT HIS OWN EXPENSE. RATES FOR EXCAVATED AND DEMOLISHED MATERIAL ARE TO INCLUDE FOR DUMPING OF RESULTANT MATERIAL TO APPROVED SITE.				
REF	ITEM	QTY.	UNIT	RATE(€) INCL VAT	AMOUNT(€) INCL VAT
1	REMOVAL OF EXISTING APERTURES/ FITTINGS, CARTING AWAY AND DUMPING OF MATERIAL TO APPROVED SITE	1.00	L.S.		
2	EXCAVATION IN ANY MATERIAL AS REQUESTED BY ARCHITECT IN CHARGE. RATE TO INCLUDE FOR DOUBLE HANDLING OF MATERIAL AND FOR EXCAVATION USING HAND HELD EQUIPMENT OR SMALL MACHINERY. RATE TO INCLUDE DUMPING TO APPROVED SITE .	180.00	CUM		
3	DEMOLITION OF ROOFS AND CARTING AWAY OF MATERIAL TO AN APPROVED CUMPING SITE. BIDDERS ARE TO NOTE THAT WORKS ARE TO BE CARRIED OUT IN A MANNER SO AS NOT TO DAMAGE ANY ADJACENT BUILDINGS AND ANY OTHER BUILDING FEATURES. PRIOR TO COMMENCEMENT OF WORKS A METHOD STATEMENT IS TO BE SUBMITTED TO THE APPROVAL OF THE OCNTRACTING AUTHORITY, HIGHLIGHTING THE PRECAUTIONARY MEASURES TO TBE TAKEN TO AVOID AND DAMAGE.	110.00	SQM		
4	DEMOLITION OF WALLS AS DIRECTED BY THE ARCHITECT IN CHARGE. MATERIAL TO BE CARTED AWAY TO APPROVED DUMPING SITE. AREA TO BE TAKEN ON ELEVATION	220.00	SQM		
5	FORMATION OF REINFORCED CONCRETE STRIP FOUNDATIONS. GRADE 30 CONCRETE. RATE TO INCLUDE FOR ANY FROMWORKS REQUIRED BUT TO EXCLUDE FOR REINFORCEMENT.RATE TO INCLUDE FOR THE INCLUSION OF A WATER PROOFING ADDITIVE TO THE CONCRETE.	40.00	CUM		
6	CONSTRUCT 230MM THICK HOLLOW CONCRETE BLOCK WALLS. RATE TO INCLUDE FOR WORKS WHICH HAVE TO BE CARRIED OUT INTERNALLY AND MUST CATER FOR DOUBLE HANDLING OF MATERIAL. BLOCK TYPE : DOUBLE DENSITY	250.00	SQM		
7	CONSTRUCTION OF REINFORCED CONCRETE COLUMNS, INCLUDING ANY FORMWORKS REQUIRED BUT EXCLUDING REINFORCEMENT. RATE TO INCLUDE FOR THE INCLUSION OF A WATER PROOFING ADDITIVE TO THE CONCRETE. CONCRETE GRADE C30	5.00	CUM		

8	CONSTRUCTION OF REINFORCED CONCRETE BEAMS, INCLUDING ANY FORMWORKS REQUIRED BUT EXCLUDING REINFORCEMENT. RATE TO INCLUDE FOR THE INCLUSION OF A WATER PROOFING ADDITIVE TO THE CONCRETE. CONCRETE GRADE C30	8.00	CUM		
9	OPENING/WIDENING OF APERTURES WITHIN DOUBLE /SINGLE THICKNESS WALLS. RATE TO INCLUDE FOR ALL MATERIAL REQUIRED AND FOR MAKING GOOD OF JAMBS. WIDTH UP TO 1.5M.	5.00	UNIT		
10	OPENING/WIDENING OF APERTURES WITHIN DOUBLE /SINGLE THICKNESS WALLS. RATE TO INCLUDE FOR ALL MATERIAL REQUIRED AND FOR MAKING GOOD OF JAMBS. WIDTH UP TO 2.4M.	5.00	UNIT		
11	CONCRETE MIXC20 SUB FLOOR 100MM THICK POURED ON AGGREGATE OR ANY OTHER SURFACE AS DIRECTED. EXCLUDING REINFORCEMENT	150.00	SQM		
12	CONSTRUCTION OF REINFORCED CONCRETE ROOFS.THICKNESS 150MM, INCLUDING 1 IN NO C503 MESH. CONCRETE GRADE C25. RATE TO INCLUDING FOR BONDING OF ROOF INTO SUPPORTING WALLS (INGALJAR) AND POWER FLOAT FINISH. NO EXTRA OVER FOR THE FORMATION OF FLUSHBEAMS SHALL BE ENTERTAINED.	255.00	SQM		
13	ADDITIONAL THICKNESS OF C25 CONCRETE, MEASURED PER 25MM.	1300.00	SQM		
14	POWER FLOATING OF ROOF SLABS	100.00	SQM		
15	SUPPLY AND LAY HY-LOAD DAMP PROOF COURSE	90.00	M		
	SUPPLY , CUT, BEND AND FIX IN PLACE THE FOLLOWING:				
	C503 MESH	275.00	SQM		
	A503 MESH	200.00	SQM		
	REINFORCEMENT BARS ANY DIAMETER. 460N/SQMM	11000.00	KG		
16	CONSTRUCTION OF REINFORCED CONCRETE STAIRS INCLUDING CHASES IN WALLS (INGALJATURA) AND THE ADDITION OF 1 IN NUMBER C503 MESH. STAIR WIDTH 1.0M	6.00	M		
17	BACKFILLING WITH APPROVED HARDCORE BACKFILL	35.00	CUM		
18	SUPPLY AND LAY SCREED ON ROOF (KONTRABEJT) LAID TO FALLS. RATE TO INCLUDE FOR POWERLOAD FINISH. CONCRETE GRADE C20. RATE TO INCLUDE FOR THE SUPPLY OF SAND TO ACHIEVE LEVELS.	290.00	SQM		
19	SUPPLY AND LAY 50MM THICK EXTRUDED POLYSTYRENE INSULATION. MINIMUM THICKNESS 50MM, MINIMUM THERMAL CONDUCTIVITY 0.033W/(mK)	290.00	SQM		
19	SUPPLY AND LAY TORCH WELDED WATER PROOFING MEMBRANE	350.00	SQM		
20	CUTTING OF EXPANSION JOINTS WITHIN ROOFING SCREED AND FILLING WITH MASTIC SEALANT	90.00	M		
	TOTAL FOR BILL A				

BILL B - DAYWORKS

NOTES

QUOTED RATES ARE TO TAKE INTO CONSIDERATION ALL DOUBLE HANDLING OF MATERIAL AS WELL AS COMPLIANCE WITH RELEVANT STANDARDS, LEGAL NOTICES AND HEALTH AND SAFETY PROCEDURES. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING STRUCTURES AND HAS TO MAKE GOOD AT HIS OWN EXPENSE. RATES FOR EXCAVATED AND DEMOLISHED MATERIAL ARE TO INCLUDE FOR DUMPING OF RESULTANT MATERIAL TO APPROVED SITE.

REF	ITEM	QTY.	UNIT	RATE(€) INCL VAT	AMOUNT(€) INCL VAT
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	ALL DAYWORKS ARE PROVISIONAL AND RATES ARE TO INCLUDE FOR OVERTIME AND FOR WORKING AFTER HOURS, IN PUBLIC HOLIDAYS AND ON SUNDAYS. RATES FOR DAYWORKS ARE DEEMED TO INCLUDE FOR THE USE OF ANY HAND TOOLS, INCLUDING ELECTRICAL EQUIPMENT. DAYWORKS ARE SUBJECT TO APPROVAL FROM CONTRACTING AUTHORITY, AND PRIOR APPROVAL IS NECESSARY. SUPPLY OF MATERIAL IS DEEMED TO SUPPLY AND DELIVERY AS DIRECTED.				
1.00	PERSONNEL				
1.10	Foreman	100	HR		
1.20	Skilled Labourer	200	HR		
1.30	Semi Skilled Labourer	200	HR		
1.40	Unskilled Labourer	200	HR		
2.00	EQUIPMENT				
2.10	Back-actor	5	HR		
2.20	Mini Excavator	20	HR		
2.30	Truck	10	HR		
2.40	Crane	10	HR		
3.00	MATERIAL				
3.10	GRADE 25 CONCRETE	20	CUM		
3.20	GRADE 20 CONCRETE	20	CUM		
3.30	PVC DUCTS - 50MM	50	M		
3.40	PVC DUCTS - 25MM	100	M		
3.50	PVC DUCTS - 115MM	30	M		
3.60	PVC FITTINGS - 115MM	10	NO		
	TOTAL FOR BILL B				

SUMMARY					
<i>NOTES</i>					
REF	ITEM			AMOUNT(€)	INCL VAT
	BILL A				
	BILL B				
	TOTAL				

VOLUME 5 - DRAWINGS

Design Documents, including Drawings

Section 5.1

List of drawings attached

No	Name	Drawing No	Design No
1.	Existing Groundfloor	01	
2.	Existing Firstfloor	02	
3.	Proposed Groundfloor	03	
4.	Proposed Firstfloor	04	