KARACHI PORT TRUST

Gateway to Pakistan
A Great Heritage – A Vibrant Future

TENDER NOTICE

E-Tenders are invited by the Chief Engineer KPT, under PPRA Rule 36 (a) from Bidders registered with Government, Semi Government Department / Organizations or with any reputable client for the following work. The Intending Bidders who possess experience in the relevant field may download the bidding documents and must submit their Bids online through E-PADS. Tender documents are also available at KPT, PPRA & MoMA Websites.

	NAME & SCOPE OF WORK	DATE & TIME OF RECEIPT AND OPENING OF TENDER
	MAINTENANCE / REPAIR TO SECURITY ROOM AND WASHROOM BATH ISLAND. The Scope of works includes viz:- • Dismantling / Chiseling of Tiles & C.C • Providing and Laying Glazed Tiles. • Plaster Works. • Providing & Fixing of RCC Slabs. • Providing & Laying CC Flooring • Providing & Fixing Bathroom Accessories. • Water Proofing & Coloring / Painting Works. **Tender Fee Rs.3,000/- (Non Refundable) & Bid Security amount of Rs.25,000/- fixed (Refundable) in form of Pay Order in the favour of Chief Accounts Officer KPT).**	**31-03-2026** Receipt at 1030 HRS. & Opening at **1100 HRS.** **Tender Fee Rs.3,000/-** **(Non Refundable)**

1. The Intending bidders must be registered with Pakistan Engineering Council in **Category C-6** and above with specialized category CE-10, **valid on the date opening.**
2. The Intending Bidders must be submit their bids online through E-PADS. The Prescribed Tender Fees amounting to **Rs. 3,000/- (Non Refundable)** and the Bid Security amounting to **Rs. 25,000/- fixed (refundable)** in Shape of Pay Orders, in favor of Chief Account Officer, KPT, alongwith an original hard copy of the Bids shall also submit in a sealed envelope at the time of Opening of Tenders.
3. **The interested Bidder, are required to submit the following documents:-**
   a. Copy of Valid PEC.
   b. Copy of NTN Certificate.
   c. Copy of Online Tax verification.
   d. Copy of SRB Certificate.
   e. Affidavit, that the firm is not defaulter in Income tax department nor blacklisted by any Organization on an E-stamp Paper.
   f. The bidder must have a minimum annual turnover of at-least **01 Million** for last 03 years. In this regard, in case of companies and firms, The Bidder must submit **Audited Financial Statements for the last 03 years,** Prepared by the Recognized Auditor showing the company's ability to maintain profitability and sustain to complete large scale projects.

   "OR"

   In case of individuals / sole proprietors, the bidder must submit **last 3 years Tax** returns filed / submitted with FBR. This ensures that the bidder has sufficient operational capability to handle a contract of this scale.
4. Only the FBR & SRB Registered Bidders are eligible for bidding, Bidder has to quote their rates inclusive of all Govt. Taxes as applicable as per Standard Format.
5. The Bid opening will take place in the Committee Room of the Civil Works / Engineering Department, at 2nd Floor, KPT Head Office Building, Karachi on given date & time.
6. KPT may reject all Bids or Proposals at any time prior to the acceptance of the Bid or Proposal. The KPT shall upon request communicate to any supplier or contractor who submitted a bid or proposal, the grounds for its rejection of all bids or proposals, but is not required to justify those grounds.

No: E/N-2(388)/26/
Dated:

EXECUTIVE ENGINEER (N.C.ATH)

CHIEF ENGINEER
KPT Head Office Building,
Eduljee Dinshaw Road, Karachi-74000,
UAN 111-KPT-111 Ph:99214318 Fax:-99214329-30.
Web site: www.kpt.gov.pk
PPRA web site address: www.ppra.org.pk

KARACHI PORT TRUST

ENGINEERING DEPARTMENT

Name of Work: **MAINTENANCE / REPAIR TO SECURITY ROOM AND WASHROOM BATH ISLAND.**

TENDER DOCUMENTS

Contents:

i) Tender Notice

ii) Instructions for Tender

iii) The Tender and Proforma 'A' 'A1'

iv) The General Conditions of Contract

v) The Specifications Part-I & Part-II

vi) The schedule of Quantities with preamble

vii) Drawings

One complete set of these Tender Documents duly filled in and priced, must be delivered at the office of the Chief Engineer, Karachi Port Trust, Karachi before 1030 hours on the 31-03-2026 in a sealed cover super scribed as per the Tender Notice.

Issued to

Name and Address of Tenderer: -

M/s.----------

Address: ----------

Date

EXECUTIVE ENGINEER (NORTH)

Note:

Each Page Must be Signed and Stamped by the firm.

Chief Engineer
Karachi Port Trust

KARACHI PORT TRUST
ENGINEERING DEPARTMENT

INSTRUCTIONS FOR TENDER

1. The Tenderer should examine carefully the General Conductions of Contract, the Specification and the Drawings supplied herewith. He should visit and inspect the Site on his own responsibility and at his own expense, obtain all the information which may be necessary for the purpose of making a Tender.

2. The rates and prices set down by the Tenderer against the items in the bill of Quantities are to be the full inclusive value of the finished work described there under and shall cover profit and all obligations of every kind which under the Contract are to be borne by the Contractor.

3. The Quantities set out in the Bill of Quantities are estimated only and their accuracy or inaccuracy shall in no way affect the validity of the Tender or of any Contract based thereon.- The total amount for the various items set out in the Bill of Quantities at the rates or prices inserted by the Tenderer shall be sated in each case, but this figure is required soley for the purpose of facilitating the comparison of the various Tenders recovered and shall not be deemed to be the actual, sum which is to be paid to the Contractor for the execution of the Works. The actual sum to be paid to the Contractor whose Tender is accepted will b determined by measuring the work actually done in accordance with the Contract and valuing it at the rates or prices inserted by the Contractor in the Bill Quantities.

4. The contractor whose Tender is accepted will be required to enter into an Agreement the form of which (subject to any necessary adaptations) will be as set out in the form appended to the General Conditions of Contract.

5. The Contract whose Tender is accepted will also be required to furnish a Security Deposit, in cash, equivalent to five per cent of the Contract Price for the due. performance of the Contract, (see clause 9 of the General Conditions of Contract.)

6. Tenders must be made on the separate form supplied herewith must be accompanied by two copies of the Bill of Quantities fully priced, monied out and totalled in ink and signed by the Tenderer. Tenders must reach the Chief Engineer, Karachi Port Trust not later than the. time stated in the Tender Notice.

7. No unauthorized alteration may be made in the Form of Tender or the accompanying documents and if any such alteration is made or if the Bill of Quantities is not properly filled in, or if these instructions are not fully complied with the Tender may be rejected.

8. Tenderers must produce evidence with their Tender that they have had experience and are fully capable of carrying out work of this class and magnitude and must give full details of the plant they propose to use of the Works, in Performa.

9. The Board of Trustees of the Karachi Port Trust reserve to themselves the right to reject any tender without any reason or to accept any Tender in whole or in part and do not bind themselves to accept the west or any Tender.

10. Should there be any doubt or obscurity as to the meaning of any of the Tender Documents or if any further information is required, the Tenderer must address his enquiry in writing (in duplicate) to the Chief Engineer, Karachi Port Trust, not later than two weeks before the date fixed for the delivery of Tender.

11. Unless otherwise agreed all payments to be made to the Contractor under the Contract will be made locally in Pakistan rupee currency.

EXECUTIVE ENGINEER (NORTH)

12. Each Tender must be accompanied by the requisite amount of Earnest Money, Deposit, either in cash with the Chief Accounts Officer, Karachi Port Trust or a pay order drawn in favor of the Chief Accounts Officer Karachi Port Trust, The Earnest Money will be refunded to the unsuccessful Tenderers after the Tenders are, decided. It will be optional with the successful Tenderers to re-appropriate the Earnest Money or part of the Earnest Money for the payment or part payment towards the Security Deposit, (see clause-9 of the General Conditions of Contract.)

13. The Tenders must be sent in a sealed cover prescribed as required in the Tender Notice and must reach the Chief Engineer, Karachi Port Trust, before the due time and date fixed for the opening of the Tenders.,

14. Address both of the place of business and residence, if the firm is a Sole Proprietor ship concern shall be given.

15. Full particulars of names of the Partners, their residential addresses, address of place of business alongwith a certified. Copy of Partnership Deed and a Certificate of Registration, if it is a Partnership concern shall be furnished while submitting the Tender.

16. A complete and up-to-date list of all the Directors of a Private Limited Company together with their residential Addresses And a printed certified copy of the Memorandum and Articles of Association of the Company alongwith a copy of Certificated of Incorporation if it is a Private Limited Company. shall be furnished with the Tender.

17. Printed certified copy of Memorandum & Articles of Association of the Company alongwith a copy of Certificate of Incorporation if it is a Public Limited Company shall be furnished with tender documents.

18. The Contractor/Suppliers are required to execute necessary agreements/contracts, etc., and for furnishing to the K.P.T. any future change in the above particulars and assets.

19. The Contractor/Suppliers shall not be allowed to carry on correspondence on "Care of" address and they should supply their independent address for the purpose.

20. The Contractors have to quote item rates as per Schedule of Quantities attached with Tender. Any insertion of percentage whether below or above on the rates after filling of the rates shall make the Tender invalid and the Tender will not be considered.

CHIEF ENGINEER
KPT

EXECUTIVE ENGINEER (N.C.RTH)

KARACHI PORT TRUST
ENGINEERING DEPARTMENT

DOCUMENTS TO BE RETURNED

THE TENDER

(Tenderers are required to fill in the blank spaces in this Tender Form and this attached Proforma "A")

To,

The Chief Engineer,
Karachi Port Trust,
Karachi (Pakistan)

Description of Work: MAINTENANCE / REPAIR TO SECURITY ROOM AND WASHROOM BATH ISLAND.

1. Having examined the **Drawings** General Conditions of the Contract Special Conditions of Contract (if any) Specification and Bill of Quantities for the construction of the above named-works, we the undersigned offer to construct complete and maintain the whole of the said works in conformity with the said Drawings. General Conditions of Contract. Special Conditions of contract (if any), Specification and Bill of Quantities for the sum of Rupees_____ (Rs_____) or such other sums as may be **ascertained** with the said Conditions.

2. If undertake if our Tender is accepted in whole or in part to commence the work within **07 days** of receipt of the Engineer's order to commence and to complete and deliver the whole of the Works comprised in the Contract within **(30 Days).** calculated from the last day of aforesaid period in which the works are to be commenced

3. If our Tender is accepted in Whole or in **part we** will furnish a Security Deposit for due performance of the Contract in accordance with Clause 9 of the General Conditions of Contract.

4. We agree to abide by this tender for a period of **04 Months** from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before expiration of that period.

5. Unless and until a formal Agreement is prepared and executed this tender, together with your written acceptance thereof, shall constitute a binding Contract between us.

6. We understand that you are not bound to accept the lowest or any Tender you may receive and accept any Tender in part or in whole.

EXECUTIVE ENGINEER (NC,RTH)

(P.T.O.

7. We further agree to pay all cost towards the execution of the Contract Agreement including the cost of stamps.

8. We agree that should we with draw the offer within the aforesaid period or fail to execute the formal contract Agreement and / or make the required Security Deposit the Board of Trustees of the Karachi Port Trust shall be at liberty at their absolute discretion to appropriate our **(Bid Security amounting to Rs. 25,000 (Fixed)**) either as agreed ;liquidated damages without any proof whatsoever of the extent of such damage or on account reserving to themselves the right to recover from us any further loss or expenses to which they may have been put directly or indirectly by reason of any failure on our parts as aforesaid.

9. We enclose a pay order for Rs. _____ as Bid Security within favour of the Chief Accounts Officer, Karachi Port Trust and hold his receipt No. _____ dated _____

10 We agree to maintain the work in good order for a period of **12 Months** from the date of its Completion

Date: TENDERER

Place: (FULL SIGNATURE)

Signed by Mr. _____ for and on behalf of

Messers _____

Address_____

EXECUTIVE ENGINEER (NORTH)

KARACHI PORT TRUST

ENGINEERING DEPARTMENT

PROFORMA"A"

(To be submitted with the Tender)

	Particulars	Details
1.	Experience as a Contractor	
2.	Works carried out in the past with detailed cost particulars and the year in-which they were undertaken etc.	
3.	Banker reference regarding Financial status	
4.	Whether registered with any Other Department or Organization? if so, give details.	

EXECUTIVE ENGINEER (NORTH)

PROFORMA“A”

	Particulars	Details
5.	Plant and equipment in possession (Give details with Cost)	
6.	Technical personnel employed: give names and other details	
7.	Is your firm registered?	
8.	State capital of your firm?	
9.	Detail of Income Tax Sales Tax Registration etc.	
10.	Number of years of actual work carried out in Pakistan	
11.	Attach attested copies of certificates of past work of the same nature carried out as that in this Tender.	

SIGNATURE OF TENDERER

Date _____ Signed by Mr. _____

Place _____ For and on behalf of _____

EXECUTIVE ENGINEER (NC-ATH)

KARACHI PORT TRUST

ENGINEERING *DEPARTMENT*

PROFORMA "A-1"

COMPOSITION & PARTICULARS OF THE TENDERING FIRM
(To be submitted with the Tender)

Particulars		Details
NOTE:	The information relevant to the tender should be given below, failing which the tender will not be considered.	
1.	in case of Sole proprietorship Concern. a) Business Address. b) Residential Address.	
2.	In case of Partnership Concern. a) Name of the Partners with their Residential Address. b) Partnership Deed & Certificate of Registration. (Attach Certified Copies)	
3.	In Case of Private Ltd. Company a) Name of all Directors with their Residential Address. b) Memorandum & Articles of association of the company & Certificate of incorporation. (Attach Printed, Certified Copies)	
4.	in Case of Public Ltd. Company Memorandum and Articles of Association and Certificate, of incorporation (Attach Printed, Certified Copy)	

In submitting the above particular to further bind ourselves of furnishing to the K.P.T. any further changes our particulars and composition of our firm.

We clearly understand that failure we comply with the above or for submitting incorrect or inaccurate information, will render our tender invalid.

EXECUTIVE ENGINEER (NORTH)

_____
SIGNATURE & SEAL OF THE TENDERER

Signed By Mr._____

for, & on behalf of _____

KARACHI PORT TRUST
ENGINEERING DEPARTMENT

PERFORMA A-2
(MANDATORY REQUIREMENT)

SUB: MAINTENANCE / REPAIR TO SECURITY ROOM AND WASHROOM BATH ISLAND.

a) Copy of Valid PEC. (Certificate Specialized Category CE-10)

b) Copy of NTN Certificate.

c) Copy of Online Tax verification.

d) Copy of SRB Certificate.

e) Affidavit, that the firm is not defaulter in Income tax department nor blacklisted by any Organization.

f) The bidder must have a minimum annual turnover of at-least **01 Million** for last 03 years. In this regard, in case of companies and firms, The Bidder must submit **Audited Financial Statements for the last 03 years,** Prepared by the Recognized Auditor showing the company's ability to maintain profitability and sustain to complete large scale projects.

"OR"

In case of individuals / sole proprietors, the bidder must submit **last 3 years Tax** returns filed / submitted with FBR. This ensures that the bidder has sufficient operational capability to handle a contract of this scale.

EXECUTIVE ENGINEER (N.C.3TH)

KARACHI PORT TRUST

ENGINEERING DEPARTMENT

Name of Work: **MAINTENANCE / REPAIR TO SECURITY ROOM AND WASHROOM BATH ISLAND.**

GENERAL CONDITIONS OF CONTRACT

EXECUTIVE ENGINEER (NORTH)

The General Conditions of Contract have been approved by the Board of Trustees of Karachi Port Trust Under their Resolution No.21, dated 9th April, 1958 for adoptions of works. of Civil Engineering Construction

EXECUTIVE ENGINEER (NORTH)

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EXECUTIVE ENGINEER (NORTH)

General Conditions of Contract

DEFINITIONS AND INTERPRETATION

1. (1) In the Contract (as hereinafter defined) the following words and expression shall have the meanings hereby assigned to them except where the context otherwise requires:-

(a) **"Board"** means the Board of Trusties of the Port of Karachi, Pakistan, and includes the Board's representatives of successors.

(b) **"Contractor"** means the person firm or company whose Tender (as hereinafter defined) has been accepted by the Board and includes the Contractor's personal representative successors and permitted assigns.

(c) **"Engineer"** means the Chief Engineer of the Karachi Port Trust or other Engineer appointed from time to time by the Board.

(d) **"Representative of Engineer"** means any Exertive Engineer appointed from time to time by the Board or the Engineer to perform the duties set forth in **Clause-2** hereof.

(e) **"Works"** means the works to be executed in accordance with the Contract.

(f) **"Contract"** means the conditions of Contract, Specification, Drawings, priced Bill of Quantities, Schedule of Rates and prices (if any) Tender and the Contract Agreement.

(g) **"Contract Price"** means the sum named in the Tender subject to such additions there to or deductions there from as may be made under the provisions hereinafter contained.

(h) **"Constructional Plant"** means all appliances things of whatsoever nature required in or about the execution completion or maintenance of the works or Temporary works (as hereinafter defined) but does not include materials or other things, intended to from or forming part of the permanent work.

(i) **"Temporary Works"** means all temporary works of every kind required in or about the execution completion or maintenance of the Works.

(j) **"Drawing"** means the drawing referred to in the specification and any modifications of such drawings approved in writing by the Engineer and such other drawing as may from time to time be furnished or approved in writing by the Engineer.

(k) **"Site"** means the lands and other places on, under in or through which the works are to be executed or carried out and any other lands or places provided by the Board for the purposes of the Contract.

(l) **"Approved"** means approved in writing including subsequent written confirmation of previous verbal approval and "approval" means approved in writing as aforesaid.

(m) **"Tender"** means the offer tendered by the Contractor for the works governed by the Contract.

(2) Words importing the singular only also include the Plural and vice versa where the contents requires. **Singular and Plural**

EXECUTIVE ENGINEER (NORTH)

(3) The marginal headings or note in these General Condition shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof the Contract. **Marginal Headings of Notes**

REPRESENTATIVES OF THE ENGINEER

Duties and Power of Representative of the Engineer.

2. The duties of the Representative of the Engineer are to watch and supervise the works and to test and examine any material to be used or workmanship employed in connection with the works. He shall have no authority to relieve the Contractor of any of his duties or obligations under the Contract nor except as expressly provided hereunder or else where in the Contract, to order any work involving delay or any extra payment by the Board nor to make any variation of or in the Works.

The Engineer may from time to time in writing delegate to the Representative of the Engineer any of the powers and authorities vested in the Engineer and shall furnish to the Contractor, a copy of all such written delegation of powers and authorities. Any written instruction or approval given by the Representative of the Engineer to the Contractor with the terms of such delegation (but not otherwise) shall bind the Contractor and the Board though it had been given by the Engineer, provided always as follows :-

(a) Failure of Representative of the Engineer to disapprove any work of material shall not prejudice the power of the Engineer there after to disapprove such work or materials and to order the pulling down removal or breaking up thereof.

(b) If the Contractor shall be dissatisfied by reason of any decision of the Representative of the Engineer he shall be entitled to refer the matter to the Engineer who shall there upon confirm serve or vary such decision.

ASSIGNMENT AND SUB- LETTING

Assignment and sub- letting

3. The Contractor shall not assign or Sub-let the Contract or any part thereof or any benefit or interest therein or there under without the prior written consent of the Board.

3. (i) The Contractor shall not except, electrical portion of the work & Sui Gas installation work, which shall be got done through duly licensed & approved Sub-Contractors, assign or sub let the Contract or any part thereof or any benefit or interest therein or there under, without the prior written consent of the Board.

ELECTRICAL WORKS

Electrification works will form part of all contracts for buildings to ensure god quality finished work, avoid, subsequent delay in completion of works occupation of building and divisions of responsibility between the main and electrical Contractor. The rain Contractor for Civil or Mechanical works may, however, employ an experienced, reputed and reliable electrical Sub-contractor for electrification works approved in advance by the K.P.T. (as per approved list of Electrical Contractors attached).

EXTENT OF CONTRACT

Extent Of Contracts

4. The Contract comprises the constructions, completion and maintenance of the works and except in so far as the Contract otherwise provides the provision of all labour materials, Constructional Plant. Temporary works and everything whether of temporary or permanent nature required in and for such construction completion and maintenance so far as the necessity for providing the same is specified in or reasonably to be inferred from the Contract.

CONTRACT DOCUMENTS

Documents manually Explanatory

5. The several documents forming the Contract are to be taken as mutually explanatory of one another and in case of ambiguities or discrepancies the same shall be explained and adjusted by the Engineer whose decision in this respect shall be final.

Drawing

6. Three (3) copies of the approved drawings shall be furnished to the Contractor free of cost. The Contractor shall provide and make at his own expense any further copies required by him. At the completion of the Contract the Contractor shall return to the Engineer all drawings provided under the Contract.

One Copy of Drawing kept on Site

One copy of drawings furnished to the Contractor as aforesaid shall be kept by the Contractor on the Site and the same shall at all reasonable times be available for inspection and use by the Engineer and the representative of the Engineer.

Further Drawings and Instruction

7. The Engineer shall have full power and authority to supply to the Contractor from time to time during the progress of the works such further drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and maintenance of the works and the Contractor shall carry out and be bound by the same.

Contract Agreement

8. The Contractor shall within Fourteen (14) days after written notice of acceptance of the Tender has been posted to the Contractor enter into and execute a Contract agreement, (to be prepared at the cost of the Contractor) in the form annexed, with such modifications as may be necessary.

EXECUTIVE ENGINEER (NORTH)

Security Deposit

9. Unless otherwise agreed between the Board and the contractor the contractor shall within fourteen days after written notice of acceptance of the Tender has been posted to the Contractor and before the contract agreement is entered into and executed. Furnish. to the Board a security for the due fulfillment of the contract through pay order from a Scheduled Bank in cash with the Chief Accounts Officer, Karachi Port Trust amounting to a sum equal to five percent of the Contract Price. If the security deposit as aforesaid is made in cash it shall be optional with the Contractor to make the full deposit before entering into and executing the agreement or to deposit fifty per cent of the amount due at that time and the balance to be made up by deduction of five percent of the amount payable to the Contractor in each on-account bill or certificate.

Contractor's Failure to Furnish Security Deposit

In the event of the Contractor failing to execute a formal Contract or to make a Security Deposit therefore in the manner aforesaid and in the period specified , the Board is entitled to appropriate any earnest money or initial deposit made by the Contractor with his Tender without prejudice to their right to claim any further loss or damage which may result to them by reason of the aforesaid defaults of the Contractor as if a Contract is actually executed for purpose of such claim.

Inspection of Site

10. The Contractor shall inspect and examine the Site and its surroundings and shall satisfy himself before submitting the Tender as to the nature of FIRST and sub - soil, the form and ature of the Site the quantities and nature of the work and materials necessary for the completion of he works and the means of access to the Site, the accommodation he may require and in general shall himself obtain all necessary information as to risk contingencies and other circumstances which may influence or affect his Tender.

Sufficiency of Tender

11. The Contractor shall be deemed to have satisfied himself before tendering as to the orrectness and sufficiency of his Tender for the Works and of the rates and prices stated in the priced Bill of quantities and the Schedule of rates (if any) which rates and prices shall except in so far & otherwise provided in the Contract cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the Works.

Work to be to Satisfaction of Engineer

12. The Contractor shall execute, complete and maintain the work in strict accordance with the Contract to the satisfaction of the Engineer and shall comply with the adhere strictly to the Engineer's Instruction and directions on any matter (whether mentioned in the Contract or not) touching or concerning the work. The Contractor shall take instruction and direction only from the Engineer or (subject to the Limitations referred to in Clause 2 hereof) from the Representative of the Engineer.

Programme to be furnished

13. As soon as practicable after the acceptance of his Tender the Contractor shall if required submit to the Engineer for his approval a Programme showing the order of procedure and method in which he proposes to carry out the Works and shall whenever required by the Engineer or Representative of the Engineer furnish for his information particulars in writing of the Contractor's arrangements for the carrying out of the Works and of the Constructional Plant and Temporary Works which the Contractor intents to supply use or construct as the case the case may be. The submission to and approval by the Engineer or the Representative of the Engineer of such Programme or the furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the Contract.

Contractor's Superintendence

14. The Company shall give or provide all necessary Superintendence during the execution of the Works and as long thereafter as the Engineer may consider necessary for the proper fulfilling of the Contractor's obligations under the Contract the Contractor or a competent and authorized agent or representative approved of in writing by the Engineer (which approval may at any time be withdrawn is to be constantly on the Works and shall give his whole time to the Superintendence of the same. If such approval shall be withdrawn by the Engineer the Contractor shall as soon as practicable having regard to the requirements of replacing him as hereafter mentioned) after receiving written notice such withdraw remove the agent from the Site and shall not thereafter employ him again on the Site in any capacity and shall replace him by another agent approved by the Engineer. Such authorized agent representative shall receive on behalf of the Contractor and directions instructions from the Engineer or (subject to the Limitations of Clause 2 hereof) Representative of the Engineer.

EXECUTIVE ENGINEER (NORTH)

15. (1) The Contractor shall provide and employ on the Site in connection with the execution and maintenance of the works :-

Only such technical assistants are as skilled and experienced in their respective callings and such sub-agents foremen and leading hands as are competent to give proper supervision to the work they are required to supervise.

Contractor's Employees

(b) Such skilled semi- skilled and unskilled labour as is necessary for the proper and timely execution and maintenance of the Works.

(2) The Engineer shall be at liberty to object to and require the Contractor to remove forthwith from the work any person employed by the Contractor in or about the execution or maintenance of the Work who in the option of the Engineer misconducts himself or is incompetent or negligent in the proper opinion of his duties or whose employment is otherwise considered by the Engineer to be undesirable and such person shall not be again employed upon the works without the written permission of the Engineer. Any person to be removed from the Works shall be replaced without delay be competent substitute approve by the Engineer.

(3) The Contractor shall if required by the Engineer deliver to the Engineer or Representative of the Engineer returns in such form and at such intervals as the Engineer may prescribe showing in detail the supervisory staff and the number of the several classes of labour from time to time employed by the Contractor on the Site.

Setting Out

16. The Contractor shall be responsible for the true and proper setting out of the work and for the correctness of the position levels dimensions and alignment of all part of Works and for the provision of all necessary instruments appliances and labour in connection therewith. If at any time during the progress of the Works any error shall appear or arise in the position level dimensions or alignments of any part of the works, the Contractor on being required to do so by the Engineer or Representative of the Engineer shall at his own expense rectify such error to the satisfaction of the Engineer or the Representative of the Engineer. The checking of any setting out or any line or level by the Engineer or Representative of the Engineer shall not in any way relieve the Contractor of his responsibility for the correctness thereof and the Contractor shall carefully protect and preserve all bench-marks, Site- rails pegs and other things used in setting out the Works.

Watching and Lighting

17. The Contractor shall in connection with the Works provide and maintain at his own cost all light, guards fencing and watching when and where necessary or required by the Engineer or the Representative of the Engineer or by and duly constituted authority for the protection of the Works or for the safety and convenience of the public or others.

Care of Works

18. (a) From the commencement to the completion of the Works the Contractor shall take full responsibility for the care thereof and of all Temporary works and in case any damage loss or injury shall happen to the work or of any part thereof or to any Temporary Works from any cause whatsoever (save and except the excerpted risks as defined in sub-Clause (2) of this Clause) shall at his own cost repair and make good the same so that at completion the works shall be in good order and condition and in confirmity in every respect with requirements of the Contract and the Engineer's instructions. The Contractor shall also be liable for any damage to the Works occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligation under Clause 4 hereof.

Excepted Risks

(b) The "Excepted risk" are war, hostilities(whether war be declared or not) Invasion, act of foreign enemies , rebellion, revolution, Insurrection of military or usurped power, civil war or (otherwise than among the Contracts own Employee) riot, commotion or disorder or the use or occupation by the Board of any portion of the Works in respect of which a Certificate of Completion has been issued or any such operation of the forces of nature as reasonable foresight and a ability on the part of the Contractor could not foresee or reasonably provide against (all of which are herein collectively referred to as "the execpted risks.)"

Damage to Persons and Property

19. The Contractor shall (execpt if an so far as the Specification Provides otherwise) indemnity and keep indemnified the Board against all asses and claims for injuries of damage to any persons or any property whatsoever (other than surface or other damage to land being or corps being on the Site suffered by tenants or occupier) which any arise out of or in consequence of the construction and maintenance of the work and against all claims demands proceedings damage, cost charges and expenses whatsoever in respect of or in relation thereto

Accident or Injury to workman

20. The Board shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any Workman or other person in the employment of the Contractor or any sub-contractor and the Contractor shall indemnify and keep indemnified the Board against all such damages compensation and against claims demands proceedings costs charges and expenses whatsoever in respect thereof or in relation thereto.

EXECUTIVE ENGINEER (NORTH)

Giving Of Notices and Payment Of Fees

21. The Contractor shall give all notices and pay all fees required to be given or paid by any National or state statute Ordinance or other Law or any Regulation or Bye- law of any local or other duly constituted authority to relations to the execution of the Works or of any Temporary Works and by the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the Works or any Temporary Works.

The Contractor shall conform in all respects with the provisions of any such Statue Ordinance or Law as aforesaid and the Regulations or Bye-Law of any local or other duly With constituted authority which may be applicable to the Works or to any temporary Works and with such rules and regulations of public bodies and companies as aforesaid and shall keep.

The oard Indemnified against all penalties and liabilities of every kind for breach of any such statue Ordinance or Law Regulation or Bye-Law.

Fossils, etc

22. All fossils coins articles of value or antiquity and structures and other remains or things of geological of archaeological interest discovered on the Site of the Works shall as between the Board and Contractor be deemed to be the absolute property of the Board and the Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal acquaint the Representative of the Engineer of such discovery and carry out the expense of the Board Representative of the Engineer or orders as to the disposal of the same.

Patent Rights and Royalties

23. The Contractor shall save harmless and indemnify the Board from and against all claim and proceedings for or on account of infringement of any patent rights any design trade-mark or name or other protected rights in respect of any constructional Plant machine work or material used for or in connection with the Works or Temporary Works or any of them and from and against all claims demands proceedings damages cost charges and expense whatsoever in respect thereof or in relation there to except where otherwise specified the Contractor shall pay all tonnage and other royalties rent and other payments or compensation (if any) for getting stone, sand , gravel clay or other materials required for the Works Temporary Works or any of item.

Opportunities for other Contractor's

24. The Contractor shall in accordance with the requirements of the Engineers afford all reasonable opportunities for carrying out their work to any other Contractors employed by the Board and their workmen and the workmen of the Board and of any other duly constituted authorities who may be employed in the execution on or near the Site of any work not included in the Contractor of any Contract which the Board may enter into in connection with or ancillary to the works.

Supply of Plant Materials and Labour

25. Except where otherwise specified the Contractor shall at his own expense supply and provide all the Constructional plant. Temporary Works Materials both for temporary and for permanent works labour (Including the supervision thereof) transport to or from the Site and in and about the work and other things of every kind required for the construction completion and maintenance of the works.

Clearance of Site on Completion

26. On the completion of the work the Contractor shall clear away and remove from the Site all constructional plant surplus material rubbish and Temporary works of every kind and leave the whole of the Site and works clean and in a workman like condition to the satisfaction of the Engineer.

LABOUR

Hours of Employment and payment of Wages

27. The Hours of Employment Regulation and payment of Wages Act so far these are applicable to the Contractor's labour shall be adhered to by the Contractor.

Return of Labour Etc.

28. The Contractor shall if required by the Engineer deliver to the Representative of the Engineer or at his office a return in detail such form and at such Intervals as the Engineer may prescribe showing the number of the several classes of labour from time to time employed by the Contractor on the Site and such information respecting Constructional plant as the Representative of the Engineer may require

EXECUTIVE ENGINEER (NORTH)

WORK MATERIAL AND PLANT

Quality of Material and workmanship and Tests

29. (1) All Materials and workmanship shall be of the respective kinds described in the Contract and in accordance with the Engineer's Instructions and shall be subjected from time to time to such test as the Engineer may direct at the place of manufacture or fabrication on the Site or at all or and of such place. The Contractor shall provide such assistance Instruments, machines, labour and materials as are normally required for examining measuring and testing any work and the quality , weight or quantity of any material used and shall supply samples of materials before incorporation in the works for testing as may be selected and required by the Engineer.

Cost of samples

(2) All samples shall be supplied by the Contractor at his own cost.

Cost of Test

(3) The cost of making all tests specified in the Contract shall be borne by the Contractor.

Access to Site

30. The Engineer and any person authorized by him shall at all times have access to the works and to the Site and to all workshops and places where work is being prepared or whence materials, manufacture articles, or machinery are being obtained for works, and the Contractor shall afford every facility for and every assistance in or obtaining the right to such access.

Examination of Work Before Covering Up

31. No work shall be covered up or put out of view without approval of the Engineer or the Representative of the Engineer and the Contractors shall afford full opportunity for the Engineer or the Representative of the Engineer to Examine and measure any work which is about to be covered up or put out of view and to examine foundation before permanent work is placed thereon. The Contractor shall give due notice to the Representative of the Engineer whenever any such work or foundations if are ready or about to be ready for examination

Removal of Improper Work and materials

32. (1) The Engineer shall during the progress works have power to order from time to time.

(a) The removal from the Site within such time or time as may be specified of any materials which in the opinion of the Engineer are not in accordance with the Contract.

(b) The substitution of proper and suitable materials and

(c) The removal and proper re-execution (not-with-standing any previous test thereof or interim payment therefore) of any work which in respect of materials or workmanship is not In the opinion of the Engineer in accordance with the Contract.

Default of Contractor

In compliance

(2) In case of default on the part of the Contractor in carrying out such order the Board shall be entitled to employ and pay other person to carry out the same and all expenses consequent thereon or incidental thereto shall be borne by the Contractor and shall be recoverable from him by the Board or may be deducted by the Board from any monies due or which may become due to the Contractor.

Suspension of Works

33. The Contractor shall on the written order of the Engineer suspend the progress of the Works or any part thereof for such time to times and in such manner as the Engineer may consider necessary and shall during such suspension property protect and secure the Work so far as is necessary in the opinion of the Engineer. The Extra cost (if any) incurred by the Contractor in giving effect to the Engineer's Instructions under this Clause shall be borne and paid by the Board unless such suspension is:-

(a) Otherwise provided for in the Contract or

(b) Necessary for the proper execution of the Works or by reason of weather conditions affecting the safety or quality of the Works or by some default on the part of the Contractor or.

(c) Necessary for the safety of the Works or any part thereof. Provided that the Contractor shall not be entitled to recover any such extra cost unless he gives notice in writing of his intention to claim to the Engineer within 28 days of the Engineer's order. The Engineer shall settle and determine the extra payment to be made to the Contractor in respect of such claim as the Engineer shall consider fair and reasonable.

EXECUTIVE ENGINEER (NORTH)

COMMENCEMENT TIME AND DELAYS

Commencement of Works

34. The Contractor shall commence the Work on Site within the period named in the tender after the receipt by him of any order in writing to this effect from the Engineer and shall proceed with the same with the due expedition and without delay except as may be expressly, sanctioned or ordered by the Engineer or be wholly beyond the Contractor's control

Possession of Site

35. (1) Save in so far as the Contract may prescribe the extent of options of the Site of which the Contractor is to be given possession from time to time and the order in which such portions shall be made available to him and subject to any requirement in the Contract as to the order in which the Works shall be executed, The Engineer will with the written order to commence the Works, give to the Contractor possession of so much of the Site as may be required to enable the Contractor to commence and proceed with the construction of the Works in accordance with the programme referred to in Clause 13 hereof (if any) and otherwise in accordance with such reasonable proposals of the Contractor as he shall by notices in writing to the Engineer make and will from time to time as the Works proceed give to the Contractor possession of such further portions of the Site as may be required to enable the Contractor to proceed with the construction of Works with due dispatch is accordance with the said programme or proposals (as the case may be).

Way Leaves Etc

(2) The Contractor shall bear all expanses and charges for special or temporary way leaves required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional accommodation outside the Site required by him for the purpose of the Works.

Time for Completion

36. Subject to any requirement in the specification as to completion of any portion of the Works before completion of the whole of the Works the Works shell be completed within the time stated in the tender calculated from the last day of the period named in the tender as that within which the Works are to be commenced or such extended time as may be allowed under Clause 37 hereof.

Extension of Time for Completion

37. Should the amount of extra or additional Work of any kind or other special circumstances of any kind whatsoever which may occur be such as fairly to entitled the Contractor to an extension of time for the completion of the Work the Engineer shall determine the amount of such extension provided that the Engineer is not bound to take into account any extra or additional Work or other special circumstances unless the Contractor has, within 28 days after such Work has been commenced or circumstances have arisen or as soon thereafter as is practicable delivered to the representative of the Engineer full and detailed particulars of any claim to extension of time to which he may consider himself entitled in order that to such claim may be investigated at the time

Termination Contract for

38. (1)The whole of the materials plant and labour to be provided by the Contractor under Clause 4 hereof and the mode, manner and speed of execution and maintenance the works are to be of kind and conducted in a manner approved of by the Engineer. Should the rate of progress of the Works or any part thereof be at any time in the opinion of the Engineer too slow to ensure the completion of the Works by the prescribed time or extended time for completion, the Engineer shall so notify the Contractor in writing and the Contractor shall thereupon take such steps as the Contractor any think necessary and the Engineer may approve to expedite progress so as to complete the Work by the prescribed time or extended time for completion. If the work is not being carried on by day and by night and the Contractor shall request permission to work by night as well as by day then if the Engineer shall grant such permission, the Contractor shall not be entitled to any additional payment for so doing.

(2) Not-with-standing anything contained hereto in the event of the rate of progress of the Works. being such that in the opinion of the Engineer Works cannot be completed by of

Slow Progress

The prescribed time or the extended time; the Engineer may have the works constructed, completed through any other agency either concurrently with or independently of the Contractor at the risk and cost of the Contractor or the Engineer may supplement the Contractors labour plant equipment and materials at the Contractor's cost and risks and in all such cases provisions of Clause 39 hereof shall apply. Further the Board shall have the power to terminate the Contract and withhold payment to the Contractor till the whole of the Works have been constructed, completed and maintained in the manner laid down in the Contract and the Contractor shall be liable for any loss or damage which the Board may sustain on that account and for forfeiture the provision Clause 56 and 57 hereof shall apply.

EXECUTIVE ENGINEER (NORTH)

Liquidated Damages for Delay

39.If the Contractor shall fail to complete the works within the time prescribed by Clause No.36 hereof, or extended time, when the Contractor shall pay to the Board a sum of **Rs.4,885.00 (Rupees: Four Thousand Eight Hundred Eighty Five Only)** as liquidated damages for such default and not as penalty for every week or part of a week which shall elapse between the time prescribed by Clause No. 36 hereof or extended time as the case may be and the date of completion of the works, upto a maximum of 10% of the total value of the contract. The Board may without prejudice to any other method of recovery deduct the amount of such damages from any monies in the Board's hands due or which may become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligation to complete the works or from any other of his obligations and liabilities under the Contract, nor it will prejudice the Board's right to recover the actual amount of damages, which the Board may suffer on account of delay in completion of the works. Furthermore; the fact that the Board has not deducted any amount of liquidated damages during the execution of the works will not prejudice the Board's right either to deduct the same from the final bill or recover the same through recourse to law.

(Approved under B. R. NO. 40, dated 23rd July,1969)

Certificate of Completion of Works

40. .As soon as in the opinion of the Engineer the works shall have been substantially completed and shall have satisfactorily passed any final test that may be prescribed by the Contract the engineer shall on receiving a written undertaking from the Contractor to finish any outstanding work during the period of Maintenance issue a Certificate of Completion in respect of the Works, the period of Maintenance of the Works shall commence from the date of and the Period of Maintenance of the such certificate. Provided that the Engineer may give such a certificate with respect to any part of the Works before the completion of the whole of the Works and shall upon the written application of the Contractor give such Certificate with respect to any substantial part of the Works which has been both completed to the satisfaction of the Engineer and occupied or used by the Board and when any such certificate is given in respect of a part of the Works such part shall be considered as completed and the Period of Maintenance of such part shall commence from the date of such certificate. Provided also that a Certificate of Completion given in accordance with the foregoing provisions of any part of the works occupied and used as aforesaid shall not be deemed to certify completion of any FIRST or surfaces requiring reinstatement unless such certificate shall expressly so state.

MAINTENANCE & DEFECTS

Definition of Period of Maintenance

41. (1)In these conditions the expression "Period of Maintenance'' shall mean the period of maintenance named in the Tender calculated from the date of completion of the Works certified by the Engineer in accordance with Clause 40 hereof or in the event of more than one certificate having been issued by the Engineer under the said Clause from the respective dates so certified and in relation to the Period of Maintenance the expression "the Works shall be construed accordingly.

Execution of Work of Repair, Etc

(2) To the intent that the Works shall at or as soon as practicable after the expiration of the Period of Maintenance be delivered upto the Board in as good and perfect a condition (fair wear and tear excepted) to the satisfaction Engineer as that in which they were at the commencement of the Period of Maintenance the Contractor shall execute all such work of repair, amendment, reconstruction, rectification and making good of defects, imperfections, shrinkates or other faults as may be required of the Contractor in writing by Engineer during the Period of Maintenance or within fourteen days after its expiration as a result of an inspection made by or on behalf of the Engineer.

Cost of Execution of Work of

(3) All such work shall be carried out by the Contractor at his own expense if the necessity thereof shall in the opinion of the Engineer be due to the use of materials or Workmanship not in accordance with the Contract or to neglect or failure on the part of Contractor to comply with any obligation expressed or implied on the Contractor's part under the Contract. If in the opinion of the Engineer such necessity shall be due to any other cause the value of such Works shall be ascertained and paid for as if it were additional Works.

Remedy on Contractor's Failure to carry out Work required

(4) If the Contractor shall fail to do any such Work as aforesaid required by the Engineer the Board shall be entitled to carry out such Work by its own Workman or by other Contractor and if such Works is Work which the Contractor should have carried out at the Contractor's own cost shall be entitled to recover from the Contractor the cost thereof or may deduct the same from any monies due or that become due to the Contractor.

EXECUTIVE ENGINEER (NORTH)

ALTERATION, ADDITION AND OMISSIONS

42. (1) The Engineer shall make any variation of the form quality of quantity of the Works or any part thereof that may in his opinion be necessary and for that purpose or if for any other reason it shall in his opinion be desirable he shall have power to order the Contractor to do and the Contractor shall do any of the following:-

(a) Increase or decrease the quality of any Work included in the Contract
(b) Omit any such Work
(c) Chang the character or quality or kind of any such Work
(d) Chang the levels, lines, position and dimensions of any part of the Works and
(e) Execute additional Work of any kind necessary for the completion of the Works.

And no such variation shall in any way validate or invalidate the Contract, but the value (if any) of all such variation shall be taken into account in ascertaining the amount of the Contract price

Order of variation to be in writing

(2) No such variation shall be made by the Contractor without an order in writing of the Engineer, provided that no order in writing shall be required for increase or decrease in the quantity of any Work where such increase or decrease is not the result of an order given under his Clause but is the result of the quantities exceeding or being less then those stated in the Bill of Quantities. Provided also that if for any reason the Engineer shall consider it desirable to give any such order verbally, the Contractor shall comply with such order and any confirmation in writing of such verbal order given by the Engine whether before or after the carrying out the order shall be deemed to be an order, in writing within the meaning of this Clause

Valuation of Variations

43. (1) The Engineer shall determine the amount (if any) to be added to or deducted from the sum named in the tender in respect of any extra or additional Works done or Work omitted by his order. All such Work shall be valued at the rates set out in the Contract if in the opinion of the Engineer the same shall be applicable. If the Contract shall not contain any rates applicable to the extra or additional Work then reasonable prices shall be fixed by the Engineer

Power of Engineer to Fix Rate

(2) Provided that if the nature or amount of any omission or addition relative to the nature or amount of the whole of the Contract Work or to any part thereof shall be such that in the opinion of the Engineer the rate or price contained in the Contract for any item of the works is by reason of such omission or addition rendered unreasonable or inapplicable the Engineer shall fix such other rate or price as in the circumstances he shall think reasonable and proper

(3). **REIMBURSEMENT FOR INCREASE IN PRICE OF SPECIFIED CONSTRUCTION MATERIALS DUTIES ETC**.

All Lump sum /prices and unit rates in the Contract are fixed and unchangeable. However, to cater for escalation KPT will reimburse the contractor, only in respect of the increase in prices of specified principal construction materials and as provided for below. All other increases, what-so-ever are deemed to have been assessed by the Contractor, entirely at his own risk, and catered for in his rates, and the contractor hereby unconditionally agree that he shall have no claims under this context.

The lump sum tender prices and unit rates, quoted against BOO items and as per specification, shall be based on the rates of materials, duties, taxes, royalties, octori charges, etc, and be in conformity with the laws, rules and regulations etc, of the Govt. applicable and/ or in force on the scheduled date of tender opening. Should there be any subsegnent increase in the above, whereby the contractors cost for executing the works are increased, the Engineer will reimburse the Contractor only for the specific items listed below, For all other items or reasons the tender prices shall be deemed to already include all necessary provision for absorbing any possible cost increase, whatsoever, in supplies, performances and appertaining services, for finished work, complete in all respect.

Import duties, sales tax and applicable surcharge on imported materials utilized by the contractor for incorporation in the permanent works, provided increases are due to legislation or Government Notification.

Reinforcing steel bars and structural steel, cement and bitumen, provided increases are due to Govt. Notification or officially notified by the nationalized industries.

NOTE: Contractor shall have to furnish to documentary evidence in Support of any such reimbursement for examination and approval of the Engineer.

EXECUTIVE ENGINEER (NORTH)

PROPERTY IN MATERIALS AND PLANT

Plant Etc. the Property of the Board

44. (1) All constructional plant, Temporary Works and materials provided by the Contractor shall when brought on to Site immediately be deemed be become the property of the Board and the Contractor shall not remove the same or any part thereof without the consent in writing of the Engineer. But the Engineer will permit the Contractor the exclusive use of all such constructional plant. Temporary Works and material in and for the completion of the Works until the happening of an event which gives right to the Board of exclude Contractor from the Site and proceed with the completion of the Works.

Revesting of Plant, Etc.

(2) Upon the removal of any such constructional plant, temporary Works or materials with consent as aforesaid the same shall be deemed to revest in and become the property of the Contractor and upon completion of the Works the reminder of the said constructional plant and temporary Works and any unused material provided by the Contractor shall be deemed to revest in and become the property of the Contractor who shall remove the same. If the Contractor fails to remove any of the said constructional plant, temporary Works of unused materials within such reasonable time after the completion of the Works as may be allow by the Board then the Board may sell the same and shall after deducting from the proceeds the cost charges and expenses of and in connection with such sale pay the balance (if any) to the Contractor.

Board not liable for Damage to plant Etc.

(3) The Board shall not at any time be liable for loss or injury to any of the said constructional plant, Temporary Works, or materials.

No Approval by Vesting

45. The operation of the Clause 44 shall not be deemed to imply any approval by the Engineer of the materials or other matters referred to therein nor shall it prevent the rejection of any such materials at any time by the Engineer

MEASUREMENT

Quantities

46. The quantities set out in the Bill of Quantities are estimated quantities of the Work but they are not be taken as the actual and correct quantities of the Works to be executed by the Contractor in fulfillment of his obligations under the Contract

Work to be Measured

47. The Engineer shall, except as otherwise stated, ascertain and determine by admeasurements the value in accordance with the Contract of Work done in accordance with the Contract. he shall when he requires any parts of parts of the Works to be measured give notice to the Constrictors' agent or representative who shell forthwith attend or send a qualified agent to assist the Engineer or the representative of the Engineer in making such measurement and shall furnish all particulars required by the either of them. Should the Contractor not attend or neglect or omit to send such agent then the measurement made by the Engineer or approved by him shall be taken to be the correct measurement of the Works.

Method of Measurement

48. The Works shall be measured net notwithstanding any general or local custom except where otherwise specially describe or prescribed in the Contract

Use o f provisional and Contingency items

49. All the sums set out in the Bill of Quantities which shall be started to be provisional or for contingencies shall be used only at the direction and discretion of the Engineer and if not used either wholly or in part shall as to the amount not used be deducted from the Contract Price

Item not monied

50. All item not monied out in the Bill of Quantities shall be used at the direction and discretion of the Engineer and if used either wholly or in part shall as to amount used, added to the Contract price.

CERTIFICATE AND PAYMENT

Bill for On-account Payments

51. (1) The Contractor shall submit to the representative of the Engineer during the execution of the Works on-account bill signed by the Contractor showing the quantities and values of the permanent Works done on the Site as soon as measurements have been recorded as per Clause 47 hereof.

Rates and Price

(2) The rates and prices in such on-account bills shall be in accordance with those in priced Bill of Quantities so far as such rates and prices are applicable and on the approved rates and prices for other items or Work.

EXECUTIVE ENGINEER (NORTH)

Quantities

(3) The quantities in such on-account bills shall be in accordance with the agreed measurement recorded by the representative of the Engineer as per provision of Clause 47 hereof.

Advances

(4) The Contractor will be paid on the certificate of the Engineer the estimated Contract value of the permanent work executed and in addition such amount as the Engineer may consider fair and reasonable for any temporary Works for which separate amounts are provided in the Bill of Quantities subject so far as it applies to a retention of a percentage until the amount retained shall reach the amount of security deposit as per Clause 9 hereof, after which time no further deduction or retention will be made.

(5) ADVANCE PAYMENT FOR MOBILIZATION.

Should the contractor so desire, the Engineer will effect certain advances payment to him, upto a maximum of 10 (ten) percent of the price of the contract after signing the agreement of Contract. This advance payment will be effected only for such contracts whose contract price exceeds the sum of As. 500,000/- (Rupees Five Lakhs only). Such advance shall exclusively be used for mobilization and purchase of constructional plant and materials for Temporary Works. A pre-requisite for these payments is, the submission of guarantees from first class bank registered in Karachi, and approved in advance by the K.P.T. The contractor shall supply the Engineer with pertinent vouchers, such as invoice shipping documents, etc. showing that the advance payments are used only for the above purpose.

Recovery of the above Mobilization Advance shall be made from Running Bills, at the rate of 20 (twenty) percent of the respective total amounts of each 'on-account' running bill due.to the contractor. Such deduction will be continued till all advances are fully settled.

Bank Guarantee will be returned to the contractor after the respective advance payment has been recovered from the running Bills, and thus the advance discharged

Approval only by Maintenance certificate

52. No certificate other then maintenance certificate referred into Clause 53 hereof shall be deemed to constitute approval of any Work or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the Contract or any part thereof or of the accuracy of an claim or deemed made by the Contractor by the Contractor or of additional or varied Work having been ordered by the Engineer nor shall any other certificate conclude or prejudice any of the powers of the Engineer.

Maintenance certificate

53. The Contractor shall not be consider as completed until a maintenance certificate shall have been signed by the Engineer and delivered to the Board stating that the Works have been completed and maintained to his satisfaction. The maintenance certificate shall be given by the Engineer twenty Eight (08) days after the expiration of the period of maintenance (or if different period of maintenance shall become applicable different part of the Works the expiration of the latest such period) and full effect shall be given to the Clause notwithstanding any previous entry of the Works or the taking possession Working or using thereof or any part thereof by the Board. The security deposit of the Contractor shall be refunded after the maintenance certificate has been issued by the Engineer after deducting any sums which may become due from Contractor in terms of provision of Clause 38 (2), 39 and 41 (4) hereof.

Payment on Completion

54. When the Engineer granted a certificate or certificates of completion of the whole of the Works under Clause 40 hereof and when the Board has ascertained the estimated final sum due to the Contractor the Board shall after allowing for the amount all of previous on account bills and certificate and after allowing for all other payments due form the Contractor to the Board pay to the Contractor such a sum out of balance so calculated as remaining due to the Contractor as will leave to be retained by the Board a sum equal to the security deposit (see Clause 9 hereof).

Currency of payment

55. Unless otherwise agreed between the Board and the Contractor all payment to be made to the Contractor under this Contract shall be in Pakistani rupee currency.

Forfeiture

REMEDIES AND POWERS

56. (1) If the shall become bankrupt or have a receiving order made against him or shall present his petition in bankruptcy or shall make an arrangement with or assignment in favor of his creditors or shall agree to carry out the Contract under a committee of Inspection of his creditors or (being a corporation) shall go into liquidation (other then a voluntary liquidation for the purpose of amalgamation or reconstruction) or if the Contractor shall assign the Contract without the consent in writing of the Board first obtained or shall have an execution levied on the goods or if the Engineer shall certify in writing to the Board that in his opinion the Contractor.

(a) has abandoned the Contract or

(b) without reasonable excuse has filed to commence the Works or has suspended the progress of the Works for Ten (10) days after receiving from the Engineer written notice to proceed

(c) has failed to remove materials from the Site or to pull down and replace Work for 28 days after receiving from the Engineer written notice that the said materials or Work had been condemned and rejected by the Engineer under these conditions or

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(c) has failed to remove materials from the Site or to pull down and replace Work for 28 days after receiving from the Engineer written notice that the said materials or Work had been condemned and rejected by the Engineer under these conditions or

(d) is not executing the Works in accordance with the Contract or is persistently or flagrantly neglecting to carry out his obligations under the Contract or

(e) Has to the determent of good Workmanship or in definance of the Engineer's instructions to the contrary sublet any part of the Contract?

Then the Engineer may after giving **14 days** notice writing to the Contractor enter upon the Site and the Works and expel the Contractor there from without hereby avoiding the Contract or releasing the Contractor from any of his obligations or liabilities under the Contract or affecting the rights and powers conferred on the Board of the Engineer by the Contract and may himself complete the Works or may employ any other Contractor to complete the Works and Board or such other Contractor may use for such completion so much of the constructional plant temporary Works or materials which have been deemed to become the property of the Board under the provision of the Contract as he or the Board may think proper and Board may at any time sell any of the said constructional plant, Temporary Works and used materials and apply the proceed or sale in or towards the satisfaction of any sums due which may become due to the Board from the Contractor under the Contract.

Valuation at Date forfeiture

(2) The Engineer shall as soon as may be practicable after any such entry and expulsion by the Board fix and determine or by or after reference to the parties or after such investigating or enquiries as he may think fit to make or institute and shall certify what amour-,t (if any) had at the time of such entry and expulsion been reasonably earned by or would reasonably accrue to the Contractor in respect of work then actually done by him under the Contract and what was the value of any unused or partially used materials any Constructional Plant and any Temporary Works which have been deemed to become the property of the Board under the provisions of the Contract

Payment after Forfeiture

(3) If the Board shall enter and expel the Contractor under this Clause the Board shall not be liable to pay to the Contractor any money on account on the Contract until the expiration of the period of maintenance and thereafter until the cost of completion and maintenance damages for delay in completion (if any) and all other expenses incurred by the Board have been ascertained and the amount thereof certified by the Engineer the Contractor shall be entitled to receive only such sum or sums (if any) as the Engineer may certify would have been due to him upon due completion by him after deducting the said amount. But if such amount shall exceed the sum which would have been payable to the Contractor on due completion by him Contractor shall upon deemed pay to the Board the amount such excess and it shall be deemed a debt due to the Contractor to the Board and shall be recoverable accordingly.

Urgent Repairs

57. If by reason or any accident or failure or other event occurring to in or in connection with he Works or any part thereof either during the execution of the Works or during the period of maintenance any remedial or other Works or repair shall in the opinion of the Engineer or the Representative of the Engineer be urgently necessary for security and the Contractor is enable or unwilling at once to do such Work or repair as the Engineer may by his own or other Workmen do such Works or repair as the Engineer or the Representative of the Engineer may consider necessary. If the Works repairs so done by the Engineer is Works which in the opinion of the Engineer the Contractor was liable to do at his own expense under the Contract all cost and charges property incurred by the Board in so doing shall no demand be paid by the Contractor to the Board or may be deducted by the Board from any monies due or which may become due to the Contractor. Provided always that the Engineer of the Representative of the Engineer (as the case may be) shall as soon as after the occurrence of any such emergency as may be reasonable practicable notify the Contractor thereof in writing.

Bribes Commission Etc.

58. Any bribe commission gift or advantages given promised or offered by or on behalf of the Contractor or his partner, agent or servant or any one on his or their behalf to any officer, servant, representative, or agent of the Board or any person on its behalf in relation to the obtaining or to the execution of this or any other Contract with the Board shall in addition to any criminal liability which may incur subject the Contractor to cancellation of this and all other Contract and also to payment of any lose or damage resulting from such cancellation to the like extent as is provided in cases of forfeiture under Clause 56 hereof and the Board shall be entitled to deduct the amounts so payable from any monies otherwise due to the Contractor under this or any other Contract.

Any question or dispute as to the commission of any offence under this Clause shall be settled by the Board in such manner as it shall think fit and sufficient and its decision shall be final and conclusive.

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SETTLEMENT OF DISPUTES

Law Covering the Contract

59. This Contract shall be governed by the law of Pakistan. Resort to court by either of the parties in respect of any dispute should be had only to an appropriate court within the limit of KARACHI

DISCLOSURE CLAUSE FOR THE CONTRACTS OVER RS. 10 MILLIONS.

60. (The Seller/Supplier) hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP) through any corrupt business practice

Without limiting the generality of the foregoing (The Seller/Supplier) represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or including the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

(The Seller/Supplier) certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

(The Seller/Supplier) accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard,

(The Seller/Supplier) agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by (The Seller/Supplier) as aforesaid for the purposed of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP.

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KARACHI PORT TRUST

(ENGINEERING DEPARTMENT)

NAME OF WORK: MAINTENANCE / REPAIR TO SECURITY ROOM AND WASHROOM BATH ISLAND.

SPECIFICATIONS

(PART I)

General

1. The work shall carried out generally in accordance with the P.W.D. Specification contained in the Bombay P.W.D. Hand Books Vols. I & II of 1950.

Excavations & Foundations

2. The excavations shall be of the depth and width shown in the plan or as directed by the Engineer The excavated material shall be deposited in the building plinth and round foundations or spread near the site of-work or removed from the site as directed. Should more material be taken out than is required it shall be replaced with good broken stones, properly consolidated at the contractor's expense.

Trenches shall he kept in good and dry condition, the bed being properly leveled and rammed where necessary and the sides even, and properly protected with timbering if required.

The rates to include all temporary timbering, draining pumping, fencing and lighting the trench if necessary etc., disposal of excess material to within 200 feets of the site. The rat shall also include filling in round the foundation walls, watering, ramming and securing in the ordinary manner.

The depth of foundations may be increased to more than that shown on the drawings. No. increase in rate will, however, be allowed for such alteration in depth of foundations

Earth Filling

3. Filling behind wall, inside plinth and in similar situations to be dry filling with sand or as per Engineer's instructions, carefully deposited, watered and rammed in layers of not, more than 9" in thickness.

Lime

4. The Lime shall be of the pest quality approved by the Engineer freshly burnt, Quite dry, free from ashes, under burnt lumps, dirt and other impurities. It shall be properly slaked with water at the site of the work not less than one week or more than 2 weeks before use. The lime, after slaking shall be screen, through 1/8th inch screen and the residue rejected. If the slaked lime is Stored, it must be properly covered over

All lime that has been in any Way damaged by rain, moisture dirt or any other cause will be rejected.

As a rule, the lime shall be used within 14 days after removal from the Kiln, Fine lime from Bolari or other approved. place only will be allowed.

Sand

5. The sand shall be river sand, sharp, clean, coarse, with silicious grains free from earth, small stones, dirt, salt peter or other impurities.

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Lime Mortars:

6. The mortar shall be well mixed in the ratio of 2 parts of sand to 1 of lime. It shall be FIRST in a mill as far as possible, but if a mill is not provided, the materials shall be thoroughly screened before mixing to get rid of any lumps.

The mortar after mixing shall be kept in a large stack protected from sun and rain and not used for two days. It must, however, not be kept so long as to become dry and friable.

Cement Mortar

7. Wherever Cement Mortar is to be used for the setting of masonry of precast concrete slabs and blocks, it shall be in the proportion of 3 parts of clean coarse river sand to I part of cement, unless otherwise given in Schedule of Quantities.

Lime Concrete for Foundations

8. The Concrete shall be of hard stones free from impurities, broken, so as to pass in all directions through 2 1/2 ring. The broken stone shall be mixed with sand and lime in the proportions of 4 : 2 : 1 measured in boxes.

The concrete must always be used when quite fresh. It shall be laid (not thrown) in layers not exceeding 6 inches in thickness and shall be well and quickly rammed with heavy wooden or iron rammers until it hardens.
The concrete laid should not be of too fluid a consistency; the surface during and after consolidation must be kept damp; and in laying consecutive layers the lower course should be well watered and made rough before the upper is laid. No more lime or Concrete shall be mixed than can be used on the day of mixing.

Cement Concrete Foundation

9. The cement concrete for foundation shall be mixed in the proportions laid down in the Schedule of Quantities or as otherwise indicated by the Engineer.

Where reinforced cement concrete foundations are specified the reinforcement shall consist of M.S. rods or rails, as indicated on the drawings and be laid in accordance with these drawings or as directed by the Engineer.

The concrete shall be mixed and laid as specified for cement concrete work (vide Clause 13 below) and to the satisfaction of the Engineer.

The rate shall include all the work specified above and all from work, shoting and pumping necessary to keep the foundations dry whilst cement concrete is being laid.

Masonry Coursed Rubble

10. Rubble masonry in foundation and superstructures to be of good sized kutcha stones from any quarry approved by the Engineer.

The stones shall be hammer dressed, laid on their natural bed. The spaces shall be properly filled in with mortar and stone chips, and the whole grouted with mortar so that no hollows are left in the masonry. The Masonry in external walls shall be in regular course 8 inches thick and internal walls in course not less than 6 inch thick.

In masonry walls 24" thick and under, through stones shall be inserted not more than 4 feet apart and all through stones shall be marked with Geru. Care should be taken not to place the through stones of successive course above one another.

No stones shall be less in breadth or length than its height and care must be taken to make the stone in different courses break joint,

The interior of walls shall consist of flat bedded stones carefully laid on their proper beds and solid bedded in mortar, chips and sprawls of stones being wedged in wherever necessary, so as to avoid thick beds or joints or mortar, care being taken that no dry work of hollow spaces shall be left anywhere in the masonry

Face work and backing shall be brought up evenly but the backing should be leveled up at each course by the use of chips.

The thickness of joints shall not exceed 5/8”

Dressed Stone Work

11. Quoins, which shall be of the same height at the courses shall be formed of header stones 18 inches long and 12" wide laid lengthwise alternatively along each face. They should be laid square on their beds, which should be fairly dressed to a depth of at least 4 inches. The quoins stones shall be fairly dressed on both faces. Cornices, Dentils etc., shall be fairly dresses stone of the size and shape as on the plan

Watering.

12. All Masonry work must be kept watered for at least 10 days. No part of the work shall be left dry during this period.

Cement Concrete Work

13. a) **Cement:-**All cement used if not supplied by K.P.T. shall be Portland Cement of slow setting quality, unless otherwise specified and shall be in accordance with the latest British Standard Specifications. It shall be of approved manufacture and unadulterated. it shall be sound, fresh unadulterated and of grey and greenish grey color. Cement brought at site for use shall be tested periodically for "Fineness" and "Tensile strength" and other qualities if necessary to see that it conforms with the latest British Standard Specifications for Portland Cement.

b) Aggregate : The fine aggregate shall be clean river and free from clay and other impurities, the particles varying in size, as far as possible from fine to ¼” mesh.

The coars aggregate shall consist of' river gravel and crushed pebble 50% each sound hard and durable and of a size so as to pass through a ¾” mesh and be retained by a ¼” mesh. The sizes shall be graded as far as possible. Unless otherwise stated in the Schedule of Quantity or in the Specifications Part-II t he coarse aggregate for plain concrete foundation shall be of broken stone, hard angular free from all impurities and of size so as to pass in all directions through a 2 ½” ring.

c) Mixing of Concretes- The fine and coars aggregates shall be measured in wooden boxes of suitable size to give the correct proportions and the correct quantity of cement added from bags. The materials shall be deposited on a clean, water-tight, boarded or cemented platform and turned over twice dry and twice wet, water being added through a hose. The materials shall be mixed in an approved mechanical mixer only.

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The concrete shall be mixed in the proportions required and specified for each particular class of work. The quantities (A various materials being as below:

1:2:4 1:2 ½ :5 1:3:6

Cement	5 Bags	5 Bags	5 Bags
Fine Aggregate	12 C.Ft	15 C. Ft	18 C. Ft
Coarse	24 C.Ft	30 C. Ft	36 C.Ft

d) Reinforcement:- All reinforcement if not supplied by K.P.T shall be of the best quality mild steel complying with British Standard Specifications No. l5 of structural steel for Bridges etc., and shall be free from rust, scaley grease, paint cif coating of any character preventing the bonding of concrete with the reinforcement. It shall be of the size, spacing and bent to the shape shown on the drawings or as ordered by the Engineer and its re-intersections shall he securely bound together with galvanished iron wire. No reinforcement is to he covered unless inspected by the Engineer. No rods re-rolled from old railway rails or other scrap will be allowed.

e) Concrete Flooring:- The concrete flooring shall be of the thickness shown on the drawings or indicated in the Schedule of Quantities, laid over it layer of well rammed lime concrete or dry metal indicated and covered with a plaster of cement and sand in the proportion of 1:1 mixed with superior geru or any other colour as required and lined in the desired shape or pattern. The flooring to be laid in sections as directed by the Engineer, in joints being painted with hot tar if so required.

f) R.C.C. lintels, posts, brackets, slabs, etc:- Reinforced cement concrete, lintels, slabs etc. shall be as shown on the drawing or according to the Engineer's instructions. The proportions for reinforced cement concrete shall be 1.:294 unless otherwise directed.

The slabs lintels, etc. shall be completely filled in one continuous operation the
concreting gently deposited in place and carefully tamped in layers from 3" to 6" thick, Care should be taken to lift the reinforcement so as to ensure proper cover for the steels on the underside of the slabs, lintels etc. The tops 1/2" layer of the roof slab of the top floor shall be waterproofed with "Pudlo" or other waterproofing compound approved by the Engineer, mixed with the concrete in the proportion and manner prescribed by the manufacturers. The contractor will be paid extra for the waterproofing compound.

g) R.C.C. Overhead Tanks:- The sides, bottom and top of the overhead Tank shall be cement concrete 1:2:4 reinforced as shown on the drawings or as directed by the Engineer. The inside and outside of the tank shall be plastered with cement mortar (1:2) mixed with an approved water proofing compound to the entire satisfaction of the Engineer. A manhole shall be provided in the top slab and C.I. Seat and Cover of standard mosquito proof pattern he fixed over it in cement concrete. All edges
around the manhole shall be properly finished off to the satisfaction of the Engineer.

The rate shall include all the work specified above and the necessary form work.

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h) R.C.C. Shelves:- The shelves shall be of cement concrete (1:2:4) reinforced as directed by the Engineer; and shall he finished with cement plaster 1:2 on both the sides. The thickness of the shelves shall be as indicated on the drawings or in the Schedule of Quantities. The shelves shall be either precast or cast in situ as directed by the Engineer.

The rate shall include all work specified above, formwork and fixing in position including making and filling channel in masonry and providing brackets etc. complete.

i) R.C.C. Sunshades:- The sunshades shall be of cement concrete 1:2:4 reinforced as directed by the Engineer. The reinforcing bars shall be properly and securely anchored to the R.C.C. lintels as directed

by the Engineer.

j) R.C.C. Stair Case Steps arid Landing:- Unless otherwise specified all staircase steps, landings, etc. shall be laid in situ with cement concrete 1:2:4 reinforced with mild steel bars as shown on the drawings or as directed by the Engineer. The steps shall be of the width shown on the drawing or as indicated in the Schedule of Quantities. The tread rise and thickness of the slab underneath the steps (known as "Waist") shall be as directed by the Engineer. The steps shall be finished with non slipping treads and moulded noses in cement plaster as directed by the Engineer. The rate shall include erecting and removing centering etc. complete with all necessary beams and brackets.

k) Precast Concrete blocks, panels, etc:- The precast blocks shall be of size indicated by the Engineer, made concrete in the proportion of 1 part of cement co 3 parts of clean river sand and 6 parts of shingle varying from 1/8" to 1/2" in size or in such proportion as given in Schedule of 'Quantities. The blocks may be made by hand or in a machine and with a wet or.diy mix as approved by the Engineer.

Precast concrete slabs for the stairs-ases, perforated panels and posts shall be cast in the proportion of 1:2:4, with reinforcement as shown on the drawings or as directed by the Engineer.

The precast blocks, etc., when made shall after the initial set be immersed in a tank of water or kept constantly moist by wet gunny bags for at least a week, and kept under shade for another week before being used. The blocks and slabs etc. shall be set in 3:1 cement mortar, the joints being of unifront thickness not exceeding 3/8"

The concrete block walls 4 inches and less in thickness shall be reinforced with 1/4 inch dia mild steel rods and every alternative course, a suitable grove being left in the edge of the blocks for the purpose. The reinforcing steel shall extend at. least 3 inches and grouted in the main wall,.

l) Boxing of R.S Joist Rails etc.:- The boxing of R.S. foists, Rails etc. shall be done as shown on the drawings or as directed by the Engineer. The Joists rails, etc. shall be thoroughly cleaned so as to be free from rust, scale etc., and be passed by the Engineer before being covered with cement concrete. The wire hoping round the joists shall be provided where shown on the drawings and shall consist of two ply tour pointed barbed wire of approved quality wound in a spiral with a pitch not exceeding 4 inches.

m. Formwork:- The formwork shall be sufficiently strong and so constructed as to remain rigid during the laying, tamping and setting of concrete. It shall be approved by the engineer before concreting is started, but the contractor shall be responsible for its sufficiency. All joints must be close enough to prevent undue leakages of the liquid cement.

All rubbish must be removed from the interior of time forms before the concrete is placed. The formwork in contact with the concrete shall be clean and thoroughly wetted or treated, with oil or other composition as required and approved by the Engineer, so as to give a clean surface to the concrete.

The formwork shall be arranged as to permit of easy removal without jarring the concrete. Wedges and clamps being used wherever practicable instead of nails.

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No formwork shall be removed for at least 14 days after the placing of concrete.

n. Concrete:- Concrete shall be laid as soon as it is mixed; it shall be carefully and gently deposited not

thrown from a height.

No joints will be allowed in beams; joints slabs where unavoidable shall be made on the beams or on walls. For joints between successive days work, the old concrete shall be hacked, washed and brushed to remove all loose particles of dust and dirt, and grouted with neat cement immediately before placing the new concrete. The new concrete shall be well rammed against the joints.

Freshly laid concrete, shall be kept moist by wet cement bags and frequent sprinkling of water for first 4 hours and then after removing the bags, earth shall he built sufficiently high so as to maintain about 2 inches of water for 14 days.

All concrete while setting shall be protected from the direct rays of the sun and shall be prevented from drying out for 14 days.

All exposed concrete surfaces shall be finished smooth with cement plaster or neru as required. No extra payment will be made for such work:- The cement plaster shall be lined in the desired shape or pattern wherever required.

The rate of all cement concrete work, shall include moulds, formwork, centering, watering etc.

Damp Proof Course:

1. The damp proof course at plinth level is to consist of a layer of 1:2:4 cement concrete mixed with "Pudlo" or other cement water-proofing compound approved by the Engineer. The mixing of the water-proofing compound shall be (lone in the proportion and manner recommended by the manufacturers of the purpose and to the satisfaction of the Engineer.

The damp-proof course shall extend over the whole of walls and be of a thickness shown on the drawings or in Schedule of Quantities.

The "Pudlo" or other approved Water-proofing compound shall be provided by the contractor and included in his rate.

Lime Plastering

15. All joints in masonry to be raked out to it depth of at least 3/4 inch and the walls to be thoroughly washed with water before plastering is commenced. The first coat of lime plaster 1:2 with 10 lbs. of boiled sugar every 100 C. Ft. of mortar shall be applied 3/4" thick and well beaten in for 1 to 2 days with hand tappers until it is reduced to 1/2" thickness; after the first coat has become, a prix of '2 of fine lime and 1of white wash lime and choppen gunny bags 6 lbs. to 100 C. Ft. or mortar shall be applied as a thin coat., lightly beaten and well rubbed with a plaster's float. The finishing coat with 1 of fine lime 2 of white wash lime shall be applied very thin and rubbed and polished with a large trowel until it is smooth and even. The complete plaster shall be allowed to rest for 24 hours and then be sprinkled with water at short intervals for 4 to 5 days.

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Cement Plaster

16. The surface to be prepared as for lime plaster. A rendering of morter consisting of I part of cement and 3 parts of fine sand shall he applied in layers not exceeding 1/4 inch in thickness to a total thickness of 1 inch. They rendering shall be kept rough and should not be beaten, but finished off with a thin coat of 1 /8 inch of pure cement and polished well with a trowel.

Cement Plaster to Outside of External Walls

17. Before rendering, the surface of the wall shall be thoroughly cleaned with water and all the joints well raked out to provide it good key as shown in Clause 15 above. A rendering of morter consisting of I part of cement and 3 parts of sharp washed sand, shall be applied in layers not exceeding 3/4 inch in thl(k less to true up the surface. This coat shall be ruled off and thoroughly combed with wavy horizontal lines about 1 /2 inch a part and not less than 1/8 inch deep to form a good key (or the second coat and shall be left for at least 48 hours before the application of the finishing coat which shall be applied when there is slight amount of moisture left on the surface. The finishing coat shall consist of one part of cement and one part of sharp washed sand and the thickness not to exceed 1/4". The surface shah be finished with a wooden float and brought to it true finish, care being taken to ensure that the gauging water is kept uniform for each mix, and to the satisfaction of the Engineer. When the finishing coat has hardened off, the surface must be kept moist
for at least seven days.

Coloured cement wash shall be applied to the finished surface in two coats or more if necessary to ensure uniformity to the satisfaction of the Engineer. The coloured cement shall be fresh, water proofed and of' the best duality and shade and be approved by the Engineer before use. The surface shall he sprinkled gently with water for at least 48 hours before and after each coat applied or any longer period as directed by the Engineer. The finishing coat shall be watered for 6 days. The tern ,it wash shall not he allowed to dry out until it has attained its set, and does not dust of.

Pointing

The joints of the work to be "Pointed" shall be neatly defined by the pointing and the lines shall be regular and uniform in breadth. No false joints shall be allowed.

a. Cement Pointing:- The joints shall be done as soon as rapidly as possible and not touched again after it has once begun to set. The old mortar shall be raked out of the joints at last 3/4 inch, the dust shall then be brushed out of the joints and the work well vatted and washed with water before pointing is started. Mortar for pointing to consist of one part of Portland Cement and two of fine sand. The work pointed shall be kept wet for at least ten days.

White Washing

19. The walls to be well cleaned and brushed before white washing. The white washing material to be prepared from fresh burnt white "lime stone or from shell lime if available. The lime to be dissolved in a tub with sufficient quantity of water and the whole well mixed strained through a clean cloth. Clean gum dissolved in hot water to be added in the proportion of 2 oz. of gum to I C. Ft. of lime along with a small quantity of marine blue as directed by the Engineer.

Three coasts to be applied

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Chalk Wash

20. The walls shall be well cleaned and brushed before chalk-washing clean white chalk of approved quality shall be slaked thoroughly with hot water in a covered vessel. To every one cwt of chalk, 14 1 /2 lbs, of salt dissolved in host water, 8 1/2 lbs, of coarse rice pounded or boiled to a thick paste, 1 1/2 lbs of blue cleaned by dissolving in hot water (the dirty refuse being rejected) and a small quantity of marine blue shall be added. All the ingredients shall be well mixed and brought to the required consistency by the addition of hot water, then allowed to simmer over a fire for a few hours, the strained and applied two coats with brush.

Distemper

21. Distemper shall be oil bound of best manufacture approved by the Engineer and of the required colour and shade. The distemper shall be mixed and applied strictly in accordance with manufacturer's or as directed by the Engineer. The plasterwork shall be carefully rubbed down smooth with sand paper and cracks, holes and other inequalities be filled with a mixture consisting of hot glue; whiting alum, and little distemper.. The filling shall be allowed to set harp before distemper is applied.

Two coat of distemper of a approved tint shall then be applied with a perfectly uniform finish free from laps or streaks.

R.S Beams & Girders and Other Iron Work in Windows

22. The steel must be of such strength and quality as to confirm with the latest British Standard Specification for structural steel.

All Beams, or Girders etc. shall be free from gust scales, blistrs lamination cracked edges, and defect of every sort.

Painting for Iron Work

23. All steel and iron work, except that used as reinforcement in concrete shall be painted with one coat of Red lead before fixing and two coats of other approved point after fixing, portions buried in masonry to be given one coat of hot tar. Surfaces to be painted to be thoroughly dry, clean smooth, and free of rush and dirt; all colors to be laid on evenly and properly with best type of brushes. The paint work should show no hair marks, or drops of paint, each tort shall be allowed to dry thoroughly before the next is laid.

Country Flat Tile Over Roof

24. The tiles flooring over roof shall consist of 1st class well shaped, well burnt and sound country tiles 12" x 12"x ½" in size laid in lime mortar and cement pointed, in laying the care shall be taken to obtain a perfectly smooth floor and to break the joints. The tiles shall be thoroughly wetted for at least 24 hours before use.

Mud Plaster

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25. The clay for mud plaster shall be free from all vegetable matter, gravel and other impurities and shall be mixed with chopped straw, cow-dung and water in sufficient quantities so as to make a sticky and plastic mixture which shall be kept for at least a week before use. The plaster shall be applied in two layers, the second layer being laid after the first is thoroughly dry. Any crakes in the plaster which may appear on drying shall be filled up with fine coat of clay mixed with cow dung to the entire satisfaction of the Engineer-

Cement Tile Flooring

26. The tile flooring shall be of Nusserwanjis patent Cement Tiles or any other make approved by the Engineer. The tiles ,hall be in one plain colour with a design in colour, and with a suitable border as indicated in the schedule of Quantities. The colour and design will be selected by the Engineer.

The tiles shall be laid on a base of 3" lime concrete well watered and consolidated with a flooring of 1” inch of sand-lime mortar over it. A liquid mixture of neat cement and water should then be poured over this floating and the tiles set one by one over this grounting by tapping gently with wooden hammer. Before the tiles are so set they must be first dipped in water for about half a minute and then allowed to trip out of all the water. As the tiles are being fixed, care must be taken that the joints are close in straight lines and filled in with cement grout by means of a fine trowel and by pouring cement grout over the whole of the titled surface. The titles shall be set evenly and in level. The title laid each day shall at the close of work be thorough cleaned with white (Deoder) saw-dust or with washed gunny bag pieces slightly moistened in water to remove any super fluous cement that may be laying on the surface of the titles. Ii found necessary, the tile flooring shall again be washed and thoroughly cleaned in the manner directed by the Engineer on completion of the work and before it is taken over.

The rate shall include lime concrete base, supplying and laying tiles and cleaning as specified. The payment will be based on final square measurement of completed flooring.

Cement Skirting Tiles

27. Skirting tiles shall be of the corresponding type and make it specified for cement flooring tiles vide Clause 26. The colour and design shall be approved by the Engineer.

The tiles shall be laid in cement mortar and finished in the same way as cement flooring tiles and to the entire satisfaction of the Engineer.

The rate shall include supplying and laying of cement. skirting tiles and cleaning etc. The payment will be based on final lineal feat of the completed skirtings.

Chimney Flue

28. Chimney flue shall be constructed exactly as shown on the drawing or as indicated by the Engineer. The rate shall include all the work required in the construction of the flue and of all the chimneys etc. on diferent floor served by the same flue as per design details on the drawings.

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Wood Work

29. All timber, shall be best. quality sound free from sap, shakes, larges loose or dead knots and thoroughly seasoned. It shall be approved by the Engineer before being used. The kind of timber used shall be pucca teak or as indicated in the schedule of' Quantities or Specification Part 11.

All workmanship shall be of the best description and all joints must fit accurately without wedging. All faces shall be planned true acid and the edges shall be square. All wood work to be embedded masonry to be well coated with hot tar.

a. **Door and Windows:-** Shall de glazed panneled or ledged and braced as shown on the drawing or as directed by the Engineer. The sizes of scantling , etc. and the kind of timber used for frames & shutters of doors and windows shall be as shown on the drawings or as directed by the Engineer. The door and window frames shall be provided with 2 or 3 iron hold fasts on each side as required.

   Measurement for door and windows shall he taken inclusive of frames. The rates shall include at fitting, iron-bars where specified, glazing with frosted glass 1 /6" thick and 3 coats of paint or varnish as required.

b. **Trellis Work:-**The batten in the trellis work shall be 1 ½ x ½" in section and be iet into the framing and secured to each other so as to cross diagonally in 2 direction at an angle 45° to the framing (or horizontally and vertically if so required) leaving 1 ½'" openings. The scantlings of the doors and windows and framing Trellis work shall be of the sizes shown on the drawings. The rate of the trellis work shall include all fittings and painting as generally specified

c. **Fittings:-** All metal fittings for doors and windows shall be of brass of best quality approved by the Engineer. Iron fittings shall only be provided in cases particularly indicated. Screws shall be of Brass or iron according to the fittings and shall be properly driven and not hammered.

   All doors and windows shall be provided with wooden chocks 6'' long 2" thick screwed to the frames with brass screws to prevent the shutters opening against and damaging the walls. Other fittings to be provided doors and windows shall be as detailed in Specifications Part-II.

d. **Roof Structures, Posts etc**: The wood-work for trusses, rafters, purlins, beams, wallplates, eaves boards, etc., of the roof structures and post shall be of the variety of timber specified in the Schedule of Quantities or Specifications Part II, neatly planed painted and in other respect as specified for wood-work in general. The unexposed portions of the timber shall be worked smooth but not planed. All the members of the roof structure shall be constructed in accordance with and be of the same size as shown on the drawings. All mortice and tenon joints, scarf etc., to be fitted together accurately in the workmanship manner and to the satisfaction of the Engineer.

   The purlins shall be of such lengths as to have joints only at the wall supports or trusses and shall be secured in position by purlins blocks as shown on the drawings or as directed by the Engineer.

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All iron straps, bolts etc. used in the work shall be good workmanship and to be blue heated and brushed over with coal tar.

The rate for the roof-work shall include fixing in position with all the iron straps and fittings necessary and three coats of approved paint to wood and iron-work. The rates for post shall include fixing position in the floor and making good the floor with cement plaster etc.

e. **Painting**:- No wood work shall be without paint or varnish unless otherwise directed by the Engineer. The surface to be painted or varnished shall be cleaned of all dirt, and dust, rubbed smooth and painted with one coat of best boiled linseed oil Subsequent, one coat of M/s. Jenson & Nicholson's Brand white lead paint shall be applied and after it is quite dry, Al holes and cracks shall be proper filled in with putty. The final cost shall be applied after a sufficient interval of time. The best paints or varnish approved by the Engineer shall only be used.

Paint Oil, Varnish, French Polish

30 Shall be of best manufacture as directed by the Engineer. Paint shall be dense of good body, tenacity, drying powers, required colour, durable, shall give smooth. Varnish shall be of permanent gloss, tough, hard and durable on exposure to weather; it shall give smooth, even and bright surface and it shall stand washing retain its colour and not blister exposure.

Asbestos Cement Sheets and Ridges

31. The asbestos cement sheets and ridges shall be of the thickness, type and manufacture specified in the Schedule of Quantities or in Part II of Specification. The lengths of the sheets shall be selected to suit the spacing of the purlines and shall be first approved by the Engineer.

The sheets shall be laid so as to have the vertical joint at right angles to and straight from the eaves to the ridge. The side lap shall be at least one and a half corrugation and the end lap not less than-6 inches. The corners shall be properly mitred where necessary at the junctions.

The sheets shall be fastened to the purlins on each side of the vertical lap with 5/16 inch galvanized drive screws 4 ½ inches long or with 5/16 inch G.I hook bolts of proper length in the case of steel purlines and provided with 1-1/26 inch bitument filled washers. The holes in the sheets shall be carefully drilled and not punched through the crown of the corrugations. An ordinary brace and twist drill should be used for drilling the holes which shall be 1/16 inch larger than the largest diameter of the screw or bolt. The sheets should not be fixed more tightly then necessary to attach them securely and should not under any circumstances be screwed down too rigidly to the purlins. The screws shall be properly worked and not hammered, just far enough to seat the washers over the crown of the corrugations, but no further. The spacing of the fixing screws and hook bolts shall be as recommended by the manufacturers of the sheets and as approved by the Engineer.

The payment shall be on the square measurement of the finished roof area and on lineal measurement of ridging as laid. The rate shall include laying with necessary overlapping and fixing securely to the roof structure with the required screws, washers etc.

NOTE:

Asbestos Sheets measuring less than the specified thickness will not be accepted, irrespective of the manufacturer's specification of the sheets, should the asbestos cement sheets offered by contractor be

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found wanting in any respect, the contractor shall provide any other make of sheets specified by the Engineer by the rate quoted in his tender, the, difference in cost if any, being borne by hint (the contractor)

Asbestos Cement Down take Pipes

32. The asbestos cement down-take pipe shall be of the internal diameter as given in the Schedule of Quantities or Specification Part-II with deep sockets and of approval quality and manufacture. The pipes shall be fixed by means of approved iron clips screwed to wooden plugs inserted in the walls in such it manner as to keep the pipes clear of the wall. All joint shall be made with a one and one cement and sand mixture tightly packed or to a hemp gasket and neatly pointed.

The rate shall include all connection of corresponding shape and size square and obtuse elbows with inspection holes, T, &Y branches, offsets shoes, head, gratings, etc., complete to the satisfaction of the Engineer.

3”4” Dia Cast Iron Pipes etc

33. The cast iron pipes and their requisite fitting shall be truly cylindrical, of the clear internal diameter specified, of a uniform thickness, smooth and with strong and deep sockets, free from flaws, air bubbles, cracks, and holes acid other defects. They shall not be brittle and shall all allow of ready cutting clipping, or drilling. The thickness of metal of the pipes shall be at least 3/16ths of an inch and the weight of the pipes shall be less than 9 lbs. per foot run. The rate shall include fixing the pipes in position providing necessary fitting connection and painting with 3 coats paints. The apes shall coated with Dr. Augus Smith's Composition. All bends and tees shall have inspection holes with water and gas-light covers, All joints shall be made perfectly air and water-light to the satisfaction of the Engineer,

Cast Iron Nahni and Gulley traps

34. All traps to be set perfectly true and level and shall be of size as shown the drawings or as directed by the Engineer.

UnderFIRST Drain

35. Pipes for the drain shall be of best quality fire-clay or stone-ware salt glaze, thoroughly burnt through out the whole thickness, of a close and event texture, free from air blows, fire blister, cracks and other Imperfections, and with perfectly glazed internal and external surfaces.

The drain should be laid to the alignment level and gradients shown on the drawing or as directed by the Engineer. The socket ends of the pipes shall always face the upstream of
the flow. All the joints shall be thoroughly cleaned and moistured and then neat cement paste shall be forced into the joints until the whole space around the spigot between it and the socket is full, the cement being sprayed off to form a net fillet round the pipe. The inside of each joints shall be carefully cleaned in order to remove any surplus cement extruded from the joints.

The rate for drain work shall include excavation and refilling of the trenches, dry metalled foundation 6 inches thick by 12 inches wide under the drains and all the work in connection with the supply, alignment, jointing and laying of drain pipes.

The trenches shall not be filled in until the joints have been tested and the alignment levels, etc.,

examined and passed by the Engineer.

Syphon Traps

36. The sypons traps be of the best quality fire-clay or stone-ware salt-glazed, thoroughly burnt though the whole thickness of a close and event texture, free from air blows and other imperfection with surfaces both internal and external perfectly glazed.

The rate of the syphon traps shall include their supply and laying in cement mortar as directed by the Engineer.

Manholes & Inspection Chambers

37. Manholes etc., shall be of course rubble masonry or cement concrete block masonry set in cement mortar and arranged as shown on the drawings, or as directed by the Engineer. The top of the manhole shall be covered with 1:2:4 reinforced cement concrete slab set in situ or precast and set in cement mortal- and provided with a cast iron seat and cover as shown on the drawings. The floor of the manhole shall be "benched" towards the centre to form at the bottom a semicircular channel of the same diameter as the pipe and in alignment with it.

All exposed surfaces shall be finished smooth with cement plaster. Iron rings shall be fixed inside manholes as shown on the drawings.

The manhole covers and seating shall be of cast iron of approved quality free, from all defects and flaws and shall be gas-tight and of the type and design shown on the drawings.

The letter K.P.T. shall be cast on the cover. The rates of manhole shall include all work and material necessary for the complete construction of the manholes as specified above to the satisfaction of the Engineer.

In all rates, the contractor should make allowances for and pumping and timbering that may be required in construction.

White Glazed Channel Drain

38. The drain shall consist of 6" dia: white glazed channel pipes with 6" white glazed tiles on both sides laid in cement mortar as shown on the drawing or as indicated by the Engineer. The channel pipes and the tiles shall be ¾" thick of best quality, free from cracks flaws and other imperfections and have smooth and perfectly glazed white surfaces.

Rates for the drain shall include supplying and laying the channel pipes and tiles in cement mortar complete in every respect.

The channel pipes and tiles shall be best quality. British or other approved manufacture

Sullage Water Drains

39. The drain shall be 1:2:4 cement concrete and of' the size and shape as shown on the drawings or as directed by the Engineer. It shall be laid on foundation of lime concrete 18" wide by 6 inches deep and finished smooth with 1" thick cement plaster.

The rate for the drain shall include excavation lime concrete foundation, cement concrete work 1 inch thick cement plaster and all filling required for the drain complete in all respect.

Sanitary Fittings etc.

40. The bath tubs, wash basins English and Eastern patter: W.C. seats together with all necessary soil, vent and autisyphon pipes brackets, flushing cistern and other fitting shall be of approved quality and manufacture, and shall be supplied and fitted in position by the contractor to the satisfaction of the Engineer and in accordance with the rules and regulations of the Karachi Metropolitan Corporation.

The W.C. seats (English and Indian pattern) shall be fixed as to have the water traps above the floor and the soil pipe taken through the wall of the building.

Water Supply

41 Supply pipelines and all plumbing work concerned therewith will be carried out of the Port Trust unless otherwise stated in the Schedule of Quantities.

Drainage

42. Septic Tank and other drainage work not included in the tender will be either carried out departmentally or by a separate contract

- Other specification in accordance with Part ll.
- Strike off when not required.

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SPECIFICATION PART-II

NAME OF WORK: **MAINTENANCE / REPAIR TO SECURITY ROOM AND WASHROOM BATH ISLAND.**

(1) **Preparation of Surface:**

All surface, whether concrete, wood or steel to be colour washed, white washed, distempered or painted etc. would be thoroughly cleaned by wire brushing scrapping or burning with blow lamp as and where necessary irrespective of the fact whether it is specified in the Schedule of Rates or not. Nothing will be allowed to be applied on the surface unless the surface has been thoroughly cleaned and certified by the Engineer Incharge.

(2) **White Washing:**

The surface to be white-washed shall be thoroughly cleaned of mortar drops and foreign matter by and papering before white-wash is applied. The white-wash shall be prepared from fresh white limo of the best quality.

Unslake lime shall be placed in a large vessel full of water and shall be thoroughly mixed and stirred up with pole or rod until the mixture attains the consistency of thin cream. It will then be strained through clean and coarse cloth. Clean gum dissolved in hot water to be added in, the proportion of 2 oz. of gum to 1 cft of lime alongwith a small quantity or marine blue as directed by the Engineer. The white-wash shall then be applied with a brush vertically and horizontally alternately to a smooth uniform and white finish, the finishing stroke will be applied vertically. The full operation / of applying once horizontally and once vertically will be reckoned as one coat. Doors, windows and floors, must be protected from being splashed with wash. Splashing and dropping if any shall be at once removed and the surface cleaned (the same day).

Each coat of white-wash is to be allowed to dry and should be approved by the Engineer-in-charge before applying the next. When dry, a coat of white-wash should show no sign of cracking nor of coming off on the finger tip when rubbed.

(3) **Colour Washing:**

Colour wash is made in the same way as white-wash (Item No. 2) with sufficient of the specified colouring matter added to give the desired tint-ort drying.

When, completed the walls must be of a uniform colour free from blotches and the wash must be such as will neither crack nor come off on the finger when rubbed.

(4) **Distempering:**

Distemper shall be of the approved quality and make to be approved by the Engineer-in- Charge.

Distemper shall be of such a quality as consists of lime proof, pigment. Before work of distempering is commenced the plastered surface must be treated with a priming coat. Distemper shall be applied quickly and holdly with large flat brushes of approved make. The brush is to be, dipped and stroke cross-wise on the wall and then immediately stroked up and down. This process shall be considered to be one coat of distemper. The distemper shall be mixed in the manner specified by the makers and each coat shall be inspected and passed by the Engineer-in-charge before next coat is applied. The finished surface shall be carefully stippled to remove any brush marks. Contd……..P/2

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(5) **Applying Snowcem:**

Snowcem shall be obtained from approved manufacturers. It shall be obtained in sealed tins which shall be opened in the presence of Engineer-in-charge and used on the work. No foreign material whatsoever should i,e added to snowcom.

Snowcem must be mixed in two stages. First by adding a little quantity of water to form a paste and then further quantity of water being added to get a mix of liquid consistency. water immediately before applying the first coat.

In the first stage one measure of water to a similar measure of. snowcem must be thoroughly stirred and allowed to stand for 10 minutes. A further measure of water should then be added and thoroughly mixed. This mix must be applied within one hour of the mixing. The lid of the container must be tightly replaced immediately after the materials been taken out from it. The surface over which the snowcom is to be applied shall be thoroughly staturaled with

The snowcem should be applied with brushes of approved make and manufacture. The first coat of snowcem shall be well scrubbed into the surface by means of brushes and allowed to set for a period of 24 hours. after this period of 24 hours the second coat shall be applied.

Alter two coats have been applied the surface shall present a uniform smooth surface, proper curing should be done as directed by Engineer.

The Contractor's rate for applying snowcern shall include the cost of all material, labour, and scaffolding etc.

(6) **Painting Over Wood Work and Iron Work (General)**

The painting shall not be started till the Engineer-in-charge has inspected the work to be painted and given his approval in writing to commence the painting.

Only best quality of paint made by an approved manufacturer and packed in sealed tins shall be used

The wood work shall be painted only when thoroughly dry. The surface to be painted shall be finished smooth and rubbed thoroughly with sand paper.

All holes, cracks and defects etc. in the wood shall be levelled up with approved quality of putty before application of the paint and to the satisfaction of Engineer-in-charge.

The steel surface to be painted shall be cleaned off all rusts scale, dirt etc. by using a scrapper or a steel wire brush. The surface should be absolutely dry before paint is applied.

Paint shall be applied only by skilled painters who shall use paint brushes of approved manufacture.

The paint shall be constantly stirred while being applied and will not be allowed to settle in the can. The stirring must be done with a smooth stick of not by the paint brush.

At the close of the day's work the brushes shall be kept with the bristles immersed in raw linseed oil. Before using the brushes oil must be rubbed out. A brush in which the paint has been allowed to dry shall not be allowed to be re-used on the work. Brushes required to be used for another colour shall be rinsed out with turpentine or washed with kerosene oil.

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Contd.....P/3

The contractor shall remove all stains. smears, splashed and droppings of every kind from floors, glazing etc.

For the purpose of payment the area of the project of the work on vertical plane will be measured by multiplying the length or width by the height of the painting The area thus obtained shall be further multiplied as given below for the various types of surfaces mentioned against each.

a.	Panelled or battened door:	The area of one side shall be multiplied by 1 ¼ and will cover the work on both sides.
b.	Partly glazed doors and windows:	The area of one side shall be multiplied by 2 and will cover the work on both sides.
c.	Fully glazed doors and windows	The area of one side shall be multiplied by 1 and will cover the work on both sides.
d.	Fully wire glazed doors and windows:	The area shall be multiplied by 1 ½
e.	Partly wire glazed doors and windows:	The area shall be multiplied by 1.
f.	Framed battened and braced or framed and battened or lodged & braced doors and windows:	The area shall be multiplied by 2.
g.	Trellis work, iron bars or grill work.	The area shall be multiplied by 1.
h.	Louvered doors	The area shall be multiplied by 2 ½ .
i.	Blusterade	The area shall be multiplied by 1 ½

The measured area will be of one side and the factor specified will be used to cover the work on both sides.

The rate shall include cost of scaffolding. ladders, materials and other appliances lot efficient execution of the work.

(7) **General:**

The contractor shall carry out as many coats as specified in the Schedule of Quantities in accordance with the above specifications. The number of coats specified are enough for producing the uniform smooth finish and finish produced by the Contractor if not upto this specification he will be required to apply as many more coats as may be required to produce the required uniform finish and no payment for extra coats applied to produce the desired uniformity will be made.

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PREAMBLE TO THE SCHEDULE OF QUANTITIES

The following is the list of Drawings :
Plan No. Dated

G E N E R A L D I R E C T I O N S

CLAUSE

1. These General Directions describe the method of measurement which will be pursued in respect of certain items also the particulars of what is to be included in the rates set down 'or the various items and are applicable to each and every portion of this bill of Quantities.

2. The terms "Clause" at the head of the left hand column refers to paragraphs containing general direction of descriptive matter not required to be priced.

`The term "Item": refers to matter to which rates are to be affixed.

3. The units of measurement used in this Bill of Quantities.

Linear	Liner	Meter abbreviated	To	R.M
Superficial	Square	Meter	-	Sq.M
Volume Weight	Cubic	Meter	-	Cu.M
	Ton (of 1000 Kgs.)	-	-	Kg.
	Kilogram	-	-	
Number	Number		-	No.

Where the unit is stated to be 100 R.M. 100 sq. M. or 100 cu. M. the quantities set down in the quantity column are the actual number of meters and not the number of units.

The rate inserted by the Tenderer is to be per unit.

4. The Bill of quantities must be read with the General Conditions, and the specification, and the Contractor shall be deemed to have examined the Drawings Specification, General Conditions and to have acquainted himself with the detailed descriptions of the works to be done and the way in which they are to 'be carried out.

5. The Quantities set down against the items in this Bill of Quantities are an estimate of how much of each kind of work is included in the Contract and are given for the convenience of forming a common basis for tenders, and they are not to be taken as a guarantee that the total quantities scheduled or every item will be carried out or required.

6. The Quantities shall therefore, not be considered as representing the final measurements, it being the intention of the Contract (except where otherwise specifically stated) that all work embraced therein shall be measured upon completion by the Engineer or his authorized representative and paid for at the prices and rates entered in the Bill of Quantities by the Contractor.

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7. The special methods of measurement which will be pursued in respect or certain items (such as excavation, filling, etc.) are stated hereafter. All other materials will be measured net as fixed in the work and no allowance made for waste.

8. Each item in the Bill of Quantities is to be priced or if any of the items are left un-priced the Contractor is to indicate that the value of the work or commitments described there-under is allowed for elsewhere in the Bill. No tender will be considered unless these requirements have been fulfilled.

9. The rates set down against the items are to be the full inclusive value of the finished work described there under and are also to cover the cost of every description of temporary work executed or used in connection therewith, except those in respect of which specific provision is made by way of separate items, including (but not by way of limitation) all labour, transport, cartage, materials, plant, machinery and appliances, staging, jetties, moorings, wharves, temporary railway, roads, workshops, offices sheds, latrines, wash places, medical and welfare facilities, housing accommodation for contractors staff and employees, fuel, water lighting, drainage including diversion of storm water, all pumping and keeping the works free from water, all costs in connection with labour ordinances, customs, harbor or others dues establishment, charges, royalties, rent, telephone, services, insurance premiums, assistance, attendance, watching and all contingent expenses, liabilities and responsibilities mentioned and referred to or to be inferred from the Conditions of Contract, Drawings and Specification.

10. The rates set down in the Bill of Quantities will not be held to apply to the "materials on the ground "upon which advances are to be made, but temporary rates for these advances will be settled by the Engineer.

11. The General descriptions and descriptions of material given in the Specification are not necessarily repeated in the Bill of Quantities.

12. Special attention is called to the Specification directing that all trenches and excavations should be kept dry.

13. **STEEL**

    a. All M.S. or hard grade deformed bars and structural steel. etc. of different sizes required for the work will have to be arranged by the Contractor. The contractor should make their own arrangements to procure the required steel, as per specifications given below, from the market.

    b. All Reinforcement should be cleaned by the Contractor by using Wire Brush etc. to remove all rust and oil before using the same in reinforced concrete work. No extra payment for this will be made to the Contractor.

    c. In case some restriction is imposed by the government on the procurement of reinforcing bars etc. the K.P.T Administration may assist in procuring necessary permits to the contractor but it should be the sole responsibility of the Contractor to arrange for the supply of quality steel at site.

13-A MILD OR HARD GRADE DEFORMED STEEL RE-INFORCEMENT

The steel for re-enforcement shall unless otherwise specified, be made by approved manufacturers in accordance with the B.S.S. 4449 or ASTM. A-615.

13-B STRUCTURAL STEEL

Structural steel sections and all fastenings shall be made by the approved manufacturers in accordance with the B.S.S.4360 or A-36 for structural steel.

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13-C TESTING

a. The Engineer, will have the right to verify the quality of steel brought by the Contractor at site by; demanding test certificate of the manufacturers or of an approved testing laboratory.

b. The Contractor may be required to produce a Certificate, alongwith each consignment from the Manufacturers to the effect that the material brought by him at site has been tested in accordance with the relevant B.S. or ASTM Standards. Not with standing the above certificate the Engineer at site can ask the Contractor to arrange re-testing of the material in his own laboratory or any other laboratory and the Contractor will be required to comply with those instructions and the cost of such tests will be borne by contractor.

14. CEMENT

a. The contractor will, at their own cost procure from the market the required quality of Portland Cement conforming to BSS 12 or ASTM C-150 for the execution of the work. The Cement will be subject to tests at site or in the K.P.T. and other testing laboratories at the Contractor's expenses before use. Test Certificate of the Manufacturers or of approved testing laboratories can also be asked for at the Contractors' own expense.

b. In case some restriction is imposed by the Government on the procurement of Cement, the K.P.T. Administration may assists in procuring necessary permits, for Contractor.

15. WATER SUPPLY

The KPT will not provide any water connection & electric connection required for execution of work. Contractor will have to maintain their own arrangement at their cost.

16. The following material if available can be supplied by the Board to the Contractor at the rates shown, unless otherwise indicated against any item. These can be drawn from the Engineer's Stores at M. I. Yard / Berth No 9 Keamari/Manora.

Item No.	Materials	Unit	Rate in Rs.
	B.R.C Fabric	M.Ton	
	Bitumen	M. Ton	

If any other material is supplied to the Contractor by the Engineer, the rate of issue will be worked out on the following basis.

a. Current market rate or the purchase price enhanced by 2% incidental charges, 6% handling and 12 ½% supervision charges, which ever is higher.

17. The Contractor will be required to submit "progress Programme" of the works for the approval of the Engineer within a week of placement of order for commencement of wok. The Contractor must ensure strict compliance to the approved "Progress Programme and in case of default is likely to be penalized upto 5% of the cost of work falling short of the Program in any one month.

18. The Contractor is required to have available the following equipment:
    a. Concrete Mixers.
    b. (Sufficient number of trucks and wheel barrows for transportation of materials.
    c. Shuttering timber in sufficient quantity.
    d. 6:test cube-moulds and slump cones.
    e. Vibratore

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19. The Contractor is required to maintain the work in good order for a period of Twelve Months from the date of its completion, at his own cost.

20. The Contractors shall employ a qualified graduate Engineer for supervision of his work.

CHIEF ENGINEER
K.P.T.

EXECUTIVE ENGINEER (NORTH)

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ENGINEERING DEPARTMENT

DOCUMENTS TO
BE RETURNED

NAME OF WORK: **MAINTENANCE / REPAIR TO SECURITY ROOM AND WASHROOM BATH ISLAND.**

S. No	Description of Work	Unit	Rate	Quantity	Amount(Rs.)

Notes: -

a) After the completion of the work the contractor is required to clear away and remove from the site all construction plants, surplus material, rubbish, debris and temporary works of every kind etc. to the entire satisfaction of the Engineer. It may be noted that Contractors' account will not be finalized till such time a certificate to this effect is obtained from Executive Engineer and submitted to the Chief Engineer for his information.

b) The Contractor must ensure that the dismantled materials should be disposed is accordance with safety standards fixed by the civic agencies and specified environmental protection rules.

c) Debris dismantled materials, rubbish etc. should be disposed in such a way that it should not cause any pollution and shall not be source of harm to public.

d) The tenderer must fill all the pages of Performa "A" & A-1" of tender documents, and ensure enclosing of the pay order for Bid **Security Amount Rs. 25,000.00 Fixed.**

e) The tenderers are advised to avoid cutting / over writing in B.O.Q. In case any cutting / over writing it should be properly re-write, sign and stamp otherwise, the tenders may not be considered.

f) The (Contractor Tech Representative) is band to visit the plan monthly & give satisfactory report after checking the plan or he is bond to visit on the call of the Engineer Incharge as & under required.

g) ***"Only the FBR & SRB Registered Contractors are eligible for bidding, Contractor has to quote their rates inclusive of all Govt. Taxes"***.

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MAINTENANCE / REPAIR TO SECURITY ROOM AND WASHROOM BATH ISLAND.

S.No.	Item description	Unit	Rate (Rate in Words)	Quantity	Amount
1.	DISMANTLING CEMENT CONCRETE / TILE FLOOR, DADO OR SKIRTING IN BASEMENT PLINTH AND GROUND FLOOR INCLUDING BASE MORTAR & STACKING SALVAGED MATERIAL (SERVICEABLE) & DISPOSING OF SURPLUS STUFF AS DIRECTED BY ENGINEER	PER/SQM		70	
2.	PROVIDING AND LAYING 1:3:6 CEMENT CONCRETE SOLID BLOCK MASONRY OF SIZE 75MM TO 150 MM (3" TO 6") THICK WALLS AND PILLARS USING GRADED SCREENED BAJRI 20 MM (3/4") AND DOWN GAUGE SET IN 1:4 CEMENT MORTAR IN FOUNDATION, BASEMENT AND PLINTH INCLUDING SCAFFOLDING RAKING OUT JOINTS AND CURING ETC., COMPLETE, (FOUNDATION AND BASEMENT MASONRY UPTO 1.50 M. (5 FT) DEPTH AND PLINTH UPTO 1.25 M. (4 FT) HEIGHT FROM THE GROUND LEVEL).	PER CU/M		02	
3.	PREPARE SURFACE AND APPLYING ½" THICK CEMENT SAND PLASTER AT ANY HEIGHT OF RATIO 1:4, FINISHED SMOOTH INCLUDING CURING, SCAFFOLDING, CORNICES, EDGES ALL AS SPECIFIED AND DIRECTED.	PER/SQM		110	
4.	PROVIDING LAYING 6MM THICK WHITE / COLORED CERAMIC TILES GLAZED / MATT NOT EXEC . 144 SQ INCH FINE DRESSED ON THE SURFACE WITHOUT SENDING LAID OVER 1" THICK CEMENT MORTAR OF RATIO 1:2 , AND IN DADOS AND SKIRTING LAID OVER 1/2" THICK BASE OF CEMENT MORTAR 1:3 SETTING TILES IN SLURRY OF GREY CEMENT , JOIINTING AND WASHING THE TILES WITH WHITE/ COLORED CEMENT SLUIRRY ALL AS SPECIFIED OR USE OF BOND MORTAR INSTEAD OF CEMENT MORTAR WHICH EVER REQUIRED.(SIZE18"X18")	PER/SQM		20	
5.	PROVIDING AND FIXING PRECAST R.C.C CONCRETE READY MADE SLABS SYSTEM OF ROOF INCLUDING THE COST OF PRECAST R.C.C BEAMS OF REQUIRED SIZE ETC FILLING THE GAPS BY APPROVED MATERIAL FROM INSIDE THE CEILING ETC COMPLETE IN ALLRESPECTS AND AS DIRECTED BY ENGINEER INCHARGE.	PER/SQM		35	
6.	PROVIDING AND LAYING 50 MM (2") THICK CEMENT FLOORING OF 1:3:6 CEMENT CONCRETE USING GRADED BALLAST 50 MM (2") AND DOWN GAUGE IN FOUNDATION ABOVE TIDAL LEVEL INCLUDING LEVELING, COMPACTING AND CURING ETC., COMPLETE.	PER/SQM		60	
7.	PROVIDING AND FIXING OF BEST QUALITY OF APPROVED MAKE AND QUALITY (MASTER S/G OR EQUIVALENT) 07 PIECES SUPREME QUALITY FIXTURE SET(SONEX OR FAISAL) BATH FIXTURE SET, FANCY TYPE GLASS TYPE (ECONOMY MODEL) FIXED COMPLETE.	EACH		01	

MAINTENANCE / REPAIR TO SECURITY ROOM AND WASHROOM BATH ISLAND.

S.No.	Item description	Unit	Rate (Rate in Words)	Quantity	Amount
8.	PROVIDING AND FIXING OF BEST QUALITY OF APPROVED MAKE AND QUALITY (MASTER OR EQUIVALENT) 07 PIECES BATH ACCESSORIES SET FANCY TYPE GLASS TYPE (ECONOMY MODEL) FIXED COMPLETE.	EACH		01	
9.	PROVIDING AND FIXING A SQUATTING TYPE WHITE AND COLOURED GLAZED EARTHREN WARE W.C PAN (OF NOT LESS THAN 483MM (19") CLEARING OPENING AS MEASURED BETWEEN FLUSHING RIMS) WITH FRONT FLUSH INLET AND A PLASTIC TRAP 4" DIA COMPLETE WITH AND INCLUDING THE COST OF A 3 GALLONS FLUSHING CISTERN WITH INTERNAL FITTINGS 152MM (6") BUILT INTO WALLS, FLUSH PIPE SUITABLE FOR SQUATTING TYPE WITH EXTRA BENDS AND LENGTH WITH FITTINGS AND CLAMPS 19MM (3/4") DIA PLASTIC PIPE CARRIED OUTSIDE AND AT VERTICALLY DOWNWARDS AS PER DIRECTION OF ENGINEER -INCHARGE.	EACH		01	
10.	PROVIDING AND FIXING WASH HAND BASIN 25" X 18" INCLUDING PEDESTAL WHITE/ LIGHT COLOR GLAZED WARE INCLUDING THE COST OF ALL NECESSARY FITTINGS LIKE WASTE COUPLING, WASTE PIPE, CONNECTIONS, KIT SCREWS/ WTROUGHT IRON BRACKETS AND MAKING CONNECTION WITH THE WATER AND SEWERAGE MAIN ETC ALL AS SPECIFIED AND DIRECTED. (EXCLUDING THE COST OF T-STOP COCK, STOP COCK, MIXER, FLOOR TRAP ETC)	EACH		01	
11.	PROVIDING AND FIXING OF 1/2" DIA CPVC PIPE AND SPECIALS INCLUDING EXCAVATION/ CUTTING OF WALL, GROUND ETC AND FIX WITH ALL ACCESSORIES LIKE "T", BENDS, SOCKETS, ELBOWS, "Y" UNIONS ETC COMPLETE AND USE OF BOND ADHESIVE ALL OF BEST APPROVED QUALITY AND MAKE INCLUDING COST OF MAKING GOOD THE DISTURB SURFACES ON LIKE TO LIKE BASIS, FIXED AT ANY HEIGHT ANY SURFACE.	PER/RM		20	
12.	PREPARE SURFACE AND APPLYING 2X COATS OF OIL BOUND DISTEMPERING APPROVED MAKE AND SHADE INCLUDING CRPAING SAND PAPERING DUSTING AND FILLING THE HOLES, CRACKS AND INEQUALITIES IF ANY AT ANY HEIGHT AND IN ANY FLOOR I/C, REMOVING RUBBISH ETC., OUTSIDE KPT	PER/SQM		40	
13	PREPARE SURFACE AND APPLYING 3X COATS OF MATT / PLASTIC EMULSION FINISH PAINT APPROVED MAKE AND SHADE INCLUDING SCRAPING SAND PAPERING DUSTING AND FILLING THE HOLES, CRACKS AND EQUALITIES IF ANY AT ANY HEIGHT AND IN ANY FLOOR I/C. REMOVING RUBBISH ETC., OUTSIDE KPT	PER/SQM		110	

MAINTENANCE / REPAIR TO SECURITY ROOM AND WASHROOM BATH ISLAND.

S.No.	Item description	Unit	Rate (Rate in Words)	Quantity	Amount
14	PROVIDING AND FIXING STEEL GATE OF FLAT IRON SECTION OF APPROVED DESIG WITH OR WITHOUT M.S SHEET COVERING INCLUDING HOLD FAST WITH OR WITHOUT ROLLER AND TRACK ARRANGMENT INCLUDING PROVIDING WICKET SHUTTER OF REQUIRED SIZE ALL ACCESSORIES AND LOCKING ARRANGMENTS COMPLETE AS PERB DIRECTION OF THE ENGINEER INCHARGE	PER KG		160	
15	PREPARE SURFACE AND APPLYING 2X COATS OF SYNTHETIC ENAMEL PAINT APPROVED MAKE AND SHADE INCLUDING SCRAPING SAND PAPERING DUSTING AND FILLING THE HOLES, CRACKS AND EQUALITIES IF ANY AT ANY HEIGHT AND IN ANY FLOOR I/C. EMOVING RUBBISH ETC., OUTSIDE KPT LIMIT.	PER/SQM		30	
16.	PROVIDING AND FIXING 38MM (1-1/2") THICK BEST QUALITY FLUSH DOOR OF COMMERCIAL / MALAYSIAN PLY SOLID DOOR WITH APPROVED FITTINGS COMPLETE IN ALL RESPECT	PER/SQM		04	
17.	PROVIDING AND FIXING G.I FRAME (CHOWKHAT) 18 GUAGE INCLUDING ALL THE ACCESSORIES WITH COMPLETE FITTINGS AS DIRECTED BY THE ENGINEER INCHARGE	PER/SQM		03	
18.	PREPARE SURFACE AND APPLYING WATER PROOFING INCLUDING HEAT PROOFING MEMBRANE OF POLYMER BASE COVERED WITH 10 OZ PER SFT CANVAS CLOTH / COMPLETE I/C ALL OVERLAPS, COVES, CORNERS, HEAT PROOFING COMPLETE ETC ALL AS SPECIFIED.	PER/SQM		34	

TOTAL	
ADD 5% CONTIGENCIES	
NET TOTAL	
ADD 15% SRB	
GRAND TOTAL	

EXECUTIVE ENGINEER (NORTH)