

RAJKOT MUNICIPAL CORPORATION

e-TENDER No.: RMC/ENGG/WZ/23-24/04



Bid Documents For

DEVELOPMENT OF 24.0 MTR PAAL ROAD IN WARD NO.11 (RETENDER)



Milestone dates for e-tendering is as under

1. Downloading of e-Tender documents	18-09-23 To 09-10-23 upto 17.00 Hrs.
2. Pre-bid Meeting	26-09-23 at 16.00 Hrs.
3. Online submission of e - Tender	09-10-23 upto 18.00 Hrs.
4. Physical submission of EMD, Tender fee and other documents required as per Financial and Experience criteria. by Regd. Post. A.D. / Speed Post ONLY	11-10-23 upto 18.00 Hrs.
5. Opening of online technical bid	12-10-23 at 11.00 Hours onwards
6. Verification of submitted documents (EMD, e - Tender fee, etc.)	12-10-23 at 11.00 Hours onwards
7. Agency to remain present in person along with original documents for verification	13-10-23 between 11.00 to 12.00 Hours
8. Opening of Price Bid (If possible)	15-10-23 at 11.00 Hrs. onwards
9. Bid Validity	180 Days
For further details, pre-qualification criteria etc. visit www.rmc.nprocure.com	

2023-24

**CITY ENGINEER (SPECIAL)
RAJKOT MUNICIPAL CORPORATION
SHRI HARISINHJI GOHIL BHAWAN,
150 FT RING ROAD,
RAJKOT - 360005 (GUJARAT)**

RAJKOT MUNICIPAL CORPORATION

BID DOCUMENT FOR

DEVELOPMENT OF 24.0 MTR PAAL ROAD IN WARD NO.11 (RETENDER)

PART-I

Invitation to Bid, Instructions to Bidders and
Formats. General Conditions of Contract

PART-II

Technical Specifications
Schedule of Drawings
Bill of Quantities (With Price)

ABBREVIATIONS

Statement showing the details of abbreviations

Full Form	Abbreviation
CITY ENGINEER (SPECIAL)	CE
Operation and Maintenance	O&M
Net Present Value	NPV
Engineering Procurement and Construction	EPC
Gujarat Electricity Board	GEB
Critical Path Method	CPM
Reinforced Cement Concrete	RCC
High Ground Level Reservoir	HGLR
Kilometer	KM
Mild Steel	MS
Bureau of Indian Standard	BIS
American Water Works Association	AWWA
American Petroleum Industries	API
Million Liter per Day	MLD
High Yield Strength Deformed bar	HYSD
Corrosion Resistance Steel	CRS
Ordinary Portland Cement	OPC
American Standard for Testing of Material	ASTM
Flux Compensated Magnetic Amplifier	FCMA
Cost Insurance and freight	CIF
Free On Board	FOB
EX – Works	EXW

I N D E X

Sr. No.	Particulars
1	Invitation to Bid
2	Instruction to Bidders
3	Formats
4	General Conditions of Contract
5	Technical specifications
6	Schedule of Drawings
7	Bill of Quantities

Rajkot Municipal Corporation

e-Tender Notice

Rajkot Municipal Corporation, Construction Branch, SHRI HARISINHJI GOHIL BHAWAN, CENTRAL ZONE, 150 FT RING ROAD, Rajkot-360005, invites e-Tenders **WITH STAR RATE** and two bid system by e-Tendering from the contractors registered in GWS&SB or State Government or Semi-Government or Central Government in appropriate Class and Special Category-I Road works for the below mentioned works:

Sr No	Name of work	A) Estimated cost B) Earnest Money Deposit C) E-TENDER fee D) Time limit for completion of work E) Class of Registration
1	DEVELOPMENT OF 24.0 MTR PAAL ROAD IN WARD NO.11 (RETENDER) Note: The work is to be carried out through Batch Mix Plant Only e-TENDER No.: RMC/ENGG/WZ/23-24/04	A) Rs.6,34,90,000/- B) Rs.6,34,900/- C) Rs.15,000/- D) 6 Months E) Class-'A' & Above

Milestone dates for e-tendering is as under	
1. Downloading of e-Tender documents	18-09-23 To 09-10-23 upto 17.00 Hrs.
2. Pre-bid Meeting	26-09-23 at 16.00 Hrs.
3. Online submission of e - Tender	09-10-23 upto 18.00 Hrs.
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9. Bid Validity	180 Days
For further details, pre-qualification criteria etc. visit www.rmc.nprocure.com	

1. All bidders must submit Bid security (EMD) as above either directly deposited in ICICI Bank Account No.015305010638 (Rajkot Municipal Corporation) IFSC Code ICIC0000153 or submit at the below mentioned address in form of Demand Draft in favour of "Rajkot Municipal Corporation", Rajkot, from any Nationalized Bank or Scheduled Bank (except Co-operative Bank) in India. The receipt of professional tax paid for current year, address proof, tender appendix details and ID proof shall have to be submitted along with physical submission of required documents shall have to be done at the below mentioned address:

CITY ENGINEER (SPECIAL)
Rajkot Municipal Corporation
Construction Branch, 150 FT RING ROAD,
Rajkot – 360005

2. The e-tender fee will be accepted only in form of Demand Draft in favor of "Rajkot Municipal Corporation" Rajkot, payable at Rajkot from any Nationalized Bank or Scheduled Bank (except Co-operative Bank) in India and must be delivered to above address.
3. Joint Venture is not permitted for this tender.
4. The pre-qualification requirement is as under:
 - i) **Financial Criteria:**
 1. An average annual turnover of last seven years should not be less than 50% of tender amount of **Rs.6,34,90,000/-**
 2. Working capital should not be less than 25% of the estimated amount.
 3. Solvency should not be less than Rs.75.00 Lakhs

ii) **Experience Criteria:**

The bidder should possess following minimum experience

1. Bidder should have completed similar nature work at least one of **60% OR** two works of **40% OR** three works of **30% each** of tender amount of either Government or Semi-Government or Government Autonomous Body as a main contractor in period of last seven years.
2. Bidder should have enough machinery and experienced personnel to supervise the work.

Sr. No.	Year	Enhance Factor
1	Current Year (2023-24)	1.00
2	Current Year – 1 (2022-23)	1.10
3	Current Year – 2 (2021-22)	1.21
4	Current Year – 3 (2020-21)	1.33
5	Current Year – 4 (2019-20)	1.46
6	Current Year – 5 (2018-19)	1.61
7	Current Year – 6 (2017-18)	1.77
8	Current Year – 7 (2016-17)	1.95

Note:

1. Enhancement factor at 10% per year for last seven years will be applicable to arrive at average annual turnover and experience and finalize the magnitude of work done in last seven years.
2. For Financial and Experience criteria, the estimated cost of **Rs.6,34,90,000/-** is to be considered.
3. Available bid capacity= $(A \times N \times 2) - B$,
where
A = Maximum of updated total amount of work executed in any one year of the last seven financial years.
B = The amount of the existing commitments and ongoing works to be discharge during time interval of N years from the bid due date.

N = Number of years prescribed for completion of the proposed works

5. The bidder(s) submitting the tender shall also have to submit the copy of ESIC & EPF Registration document along with the other documents, duly self attested, failing which, the tender of such bidder(s) will be considered as non-responsive and their online price bid will not be opened.
6. The contractor shall have to quote their rates including other taxes.
7. Bidder to quote rates excluding GST. Agency will be paid GST extra at prevailing rate of GST at the time of work.
8. After opening of Technical Bid, the procedure for the pre-qualification shall be adopted and the Price Bid of only successful qualified bidder shall be opened for final evaluation of the contract. The decision of Municipal Commissioner regarding the pre-qualification shall be final and binding to all the bidders.
9. The Tender of those bidder(s) those who fails to submit the required documents physically within the stipulated date and time, will be treated as non responsive and their Price Bid will not be opened.
10. The bidder should not have been Black Listed, suspended, terminated, backed out, debarred & delisted by any Municipal Body / Urban Local Body / Development Authority in any State Government Body or undertaking / any department or undertaking of Government of India, since inception of the firm / Company. Such a case will be rejected out rightly. A Declaration in this regard on Rs.300/- Stamp Paper duly Notarized shall have to be submitted as per Annexure along with the tender documents. Submission of the bid document without such Notarized declaration will be rejected out rightly.
11. The bidder should provide accurate information on any litigation history or arbitration resulting from contracts completed or under execution by him over the last ten years. This should also include such cases, which are in process / progress. A consistent history of awards against the bidder may result in failure of the bid. In case the bidder has not provided such information and has come to the notice of the authority, the tender will be rejected at what so ever stage and in such case all the losses that will arise out of this issue will be recovered from the Bidder / bidder and he will not have any defense for the same.
12. Conditional Tenders will be out rightly rejected.
13. If no agency remains present and are no points for Prebid meeting, "NIL" minutes to be considered and the same will not be uploaded.
14. Rajkot Municipal Corporation, Rajkot, reserves the right to accept / reject any or all e-tender(s) without assigning any reasons thereof.

CITY ENGINEER (SPECIAL)
Rajkot Municipal Corporation

Check List for submission of Documents Tab	
Tender Fee submitted as per Tender	Yes / No
Tender Earnest Money Deposit submitted as per Tender	Yes / No
Registration documents submitted as per tender requirement	Yes / No
Financial Details:	
Turnover details submitted as per requirement	Yes / No
Working Capital as per requirement of tender is submitted	Yes / No
Valid Bank Solvency submitted	Yes / No
Validity of Bank Solvency	Date:
Experience Details:	
Details of Technical Staff and details of machineries submitted	Yes / No
Address proof submitted	Yes / No
Identity proof submitted	Yes / No
Fresh Declaration on Non-Judicial Stamp Paper regarding not black listed or Terminated or Debarred, is submitted	Yes / No
Professional Tax Receipt of current year	Yes / No

Note:

Over and above, the agency shall also have to submit all other necessary documents as may be required for pre-qualification, failing which, the agency will be treated as Non-responsive and will be DISQUALIFIED and also the online price bid of such agency will not be opened.

Signature of contractor with seal

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDER

IT 1. GENERAL

The contract documents may be secured in accordance with the Notice Inviting E-TENDER for the work called. The work shall include supply of materials necessary for construction of the work.

IT 2. INVITATION TO E-TENDER

The Rajkot Municipal Corporation hereinafter referred as the Corporation will receive e-Tenders for the work of as per the specifications and schedule of prices in the e-Tender document. The e-Tenders shall be opened online as specified in the e-Tender notice in the presence of interested Bidders or their representatives. The Corporation reserves the right to reject the lowest or any other or all e-Tenders or part of it which in the opinion of the Corporation does not appear to be in its best interest, and the Bidder shall have no cause of action or claim against the Corporation or its officers, employees, successors or assignees for rejection of his e-Tender.

IT 3. LANGUAGE OF e-TENDER

E-TENDERS shall be submitted in English, and all information in the e-Tender shall also be in English, Information in any other language shall be accompanied by its translation in English. Failure to comply with this may make the e-Tender liable to rejection.

IT 4. QUALIFICATIONS OF BIDDERS

- A. The Bidders shall abide by the laws of the Union of India and of Gujarat State and legal jurisdiction of the place where the works are located.
- B. The Bidder shall furnish a written statement of financial and technical parameters with details and documents along with his e-Tender which contains namely as below:
 - i. The Bidder's experience in the fields relevant to this contract.
 - ii. The Bidder's financial capacity/resources and standing over at least 7 (seven) years.
 - iii. The Bidder's present commitments (Jobs on hand).
 - iv. The Bidder's capability and qualifications of himself and his regular staff etc.
 - v. Plants and Machinery available with the Bidder for the work e-Tendered.

IT 5. e-TENDER DOCUMENTS

The e-Tender documents and drawings shall comprehensively be referred to as e-TENDER document. The several sections form in the document are the essential parts of the contract and a requirement occurring in one shall be as binding as though occurring in all, they are to be taken as mutually, explanatory and describe and provide for complete works.

IT 6. EXAMINATION BY BIDDERS

- A. At this own expense and prior to submitting his e-Tender, each Bidder shall (a) examine the Contract Documents, (b) visit the site and determine local conditions which may affect the work including the prevailing wages and other pertinent cost factors, (c) familiarize, himself with all central, state and local laws, ordinance, rules regulations and codes affecting the material supply including the cost of permits and licenses required for the work and (d) correlate his observations, investigations, and determinations with the requirements of the e-TENDER Documents, site & subsoil investigation.
- B. The e-Tender is invited on **..%. rate** and contractor shall have to quote his price on % bases **equal / above / below in the schedule-B./ Price Schedule**. The works shall have to be completed in all respect as stated in the e-Tender document to the satisfaction of the Corporation.

C. The following comprises in Contract Documents at a price of Rs.15,000/-

e-TENDER Document: Notice inviting Bidders
E-TENDER declaration form
Check list.
Instructions to the Bidder
Formats
General conditions of contract
Technical specifications
Bid Form (With Price)
Preamble to Price schedule
Price Schedule (Schedule-B)

D. Copy of the E-TENDER Document should be completed, checked in a responsible manner, digitally signed, and submitted. Security Bond shall be submitted in person by the stipulate date, which shall form the e-Tender.

The e-Tender is required to complete with all the pages in which entries are required to be made by the Bidder are contained in the e-Tender documents and the Bidder shall not take out or add to or amend the text of any of the documents except in so far as may be necessary to comply with any addenda issued pursuant to Clause IT. 19 hereof.

IT 7. EARNEST MONEY DEPOSIT:

- A. Each Bidder must submit a DD as Tender guarantee towards Earnest money amounting to Rs.6,34,900/- in favor of "Rajkot Municipal Corporation", from any Nationlized Bank or Scheduled bank (except Co-operative Bank) acceptable to owner payable at Rajkot. The Tender Bond, shall be valid for a period of not less than hundred and eighty (180) days from the date the e-Tenders are opened and shall comply with the requirements for Bond as stipulated in the General conditions of contract. The Tender guarantee bond will be held by the owner as a guarantee that the Bidder, if awarded the contract, will enter into the contract agreement in good faith and furnish the required bonds. Any e-Tender not accompanied by a Tender guarantee in the form of earnest money deposited for the sum stipulated in the e-Tender Document will be summarily rejected.**
- B. The Earnest Money Deposit will be refunded to the unsuccessful Bidders after an award has been finalized.
- C. The Earnest Money Deposit (Tender Guarantee) will be forfeited in the event, the **successful** Bidder fails to accept the contract and fails to submit the "Performance Guarantee Bonds to the Owner as stipulated in this e-Tender documents within ten days. (10) days after receipt of notice of award of contract.
- D. The Earnest Money Deposit of the successful Bidder shall be returned after the performance guarantee bond, as required, is furnished by the contractor.
- E. Within 10 (ten) days from the date of issue of the letter accepting his tender, the successful Bidder shall furnish the required Security Deposit for performance and plus additional security if any for unbalanced bids in accordance with the condition of the contract and attend the office of the Engineer In-charge for execution of the contract documents. If he fails to furnish the Security Deposit for performance or enter into an agreement to execute the contract for the work offered to him, his Earnest Money Deposit will be forfeited and the Bidder will be Black Listed / Debarred / Terminated from

tendering for further works of Rajkot Municipal Corporation for the period of three years.

F. No interest shall be paid by the owner on any e-Tender guarantee.

IT 8. INCOME TAX CLEARANCE CERTIFICATE: (DELETED) :

Latest Income Tax clearance Certificates must accompany with the e-Tender without which the e-Tender is liable to be summarily rejected. The Income Tax Clearance Certificate obtained from the Income Tax Officer shall clearly indicate the Income Tax Pan No/Circle/Ward, District and the reference number of the assessment along with the assessment year.

IT 9. PREPARATION OF E-TENDER DOCUMENTS

Bidders are required to note the following while preparing the E-TENDER Documents:

- A. E-TENDER shall be submitted on the E-TENDER form bound here in English. All statements shall be properly filled in. Numbers shall be stated both in words and in figures where so indicated.
- B. All entries or prices and arithmetic shall be checked before submission of the E-TENDERS. If there is discrepancy between the rates quoted in figures and in words, the rates expressed in words shall be considered as binding.
- C. Each e-Tender shall be accompanied by the prescribed e-Tender security bond and other required documents and drawings. All witnesses and sureties shall be persons of status and probity and their full names, occupations and addresses shall be stated below their signature.
- D. Variation to the contract Documents requested by the Bidder may be affixed and duly signed and stamped. Such variations may be approved or refused by the Corporation is not obliged to give reason for his decisions.

IT 10. SUBMISSION OF E-TENDER DOCUMENTS

Bidders are requested to submit the E-TENDER Documents on following lines. A. Volume containing following documents :

- I. E-TENDER security bond (Earnest Money)
- II. Certificates as registered contractor with Government of Gujarat or appropriate authority.
- III. Bidder 's financial capability and standing over at least past seven years
- IV. Current Income Tax clearance certificate. **(DELETED)**
- V. Bidder's experience in the field relevant to this contract.
- VI. A list of the equipment the Bidder possesses and that which he proposed to acquire and use for the purpose related to the work.
- VII. Bidder should submit All the drawings which they have received along with e- Tenders

The time limit for receipt of e-Tender shall strictly apply in all cases. The Bidders should therefore ensure that their e-Tender is received by the competent authority **The Rajkot Municipal Corporation** at the required place before expiry of the time limit. No delay on account of any cause for receipt of e-Tender shall be entertained.

The e-Tender must contain the name address and residence and place of business of the person or persons submitting the e-Tender and must be digitally signed.

E-TENDERS by partnership firm must be furnished with the full names and addresses of all partners and be signed by one of the members of the partnership or by a legally authorized representative holding power of attorney followed by signature and designation of the person of person signing.

E-TENDERS by corporations/companies must be signed with the legal name of the Corporation/Companies by the president/or by the secretary or other person or persons legally authorized to bind the Corporation/Company in the matter.

IT 11 TENDER VALIDITY PERIOD

The validity period of the e-Tender submitted for this work shall be of One eighty (180) calendar days from the date of opening of the online Price Bid and that the Bidder shall not be allowed to withdraw or modify the e-Tender offer on his own during the validity period. The Bidder will not be allowed to withdraw the e-Tender or make any modifications or additions in the terms and conditions on his own e-Tender. If this is done then the owner shall, without prejudice to any other right or remedy, be at liberty to reject the e-Tender and forfeit the earnest money deposit in full.

IT 12 GENERAL PERFORMANCE DATA

Bidders shall present all the information which sought for in the e-Tender document in form of various schedules if given. E-TENDERS may not be considered if left blank or the schedules are not properly filled in.

IT 13 SIGNING OF E-TENDER DOCUMENTS

If the e-Tender is made by an individual it shall be signed with his full name above his current address. If the e-Tender is made by a proprietary firm, it shall be signed by the proprietor above his name and the name of his firm with his current address.

If the e-Tender is made by a firm in partnership, it shall be signed by all the partners of the firm above their full names and current address, or by a partner holding the power of attorney for the firm, in which case a certified copy of the power of attorney shall accompany the E-TENDER. A certified copy of the partnership deed, current addresses of all the partners of the firm shall also accompany the e-Tender.

If the e-Tender is made by a limited company or a limited corporation, it shall be signed by a duly authorized person holding the power of attorney, shall accompany the e-Tender. Such limited company or corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded.

If the E-TENDER is made by a group of firms, the sponsoring firm shall submit complete information pertaining to each firms in the group and state along with the bid as to which of the firms shall have the responsibility for e-Tendering and for completion of the contract documents and furnish evidence admissible in law in respect of the authority to such firms on behalf of the group of firms for e-Tendering and for completion of contract documents. The full information and satisfactory evidence pertaining to the participation of each member of the group of firms in the e-Tender shall be furnished along with the e-Tender.

All witnesses and sureties shall be persons of status and probity and their full names, occupations and addresses shall be stated below their signatures. All the signatures in the e-Tender document shall be dated.

IT 14 WITHDRAWAL OF TENDERS

If, during the tender validity period, the Bidder withdraws his Tender, Tender security (Earnest Money) shall be forfeited and Bidder will be debarred for next three years to quote in R.M.C.

IT 15 INTERPRETATIONS OF E-TENDER DOCUMENTS

Bidders shall carefully examine the E-TENDER Document and fully inform themselves as to all the conditions and matters which may in any way affect the work or the cost thereof. If a Bidder finds discrepancies, or omission from the specifications or other documents or should be in doubt as to their meaning, he should at once address

quarry to the CITY ENGINEER (SPECIAL), R.M.C. The result of interpretation of the E-TENDER will be issued to all Bidders as addendum.

IT 16 ERRORS AND DISCREPANCIES IN E-TENDERS

In case of conflict between the figures and words in the rates the rate expressed in words shall prevail and apply in such cases.

IT 17 MODIFICATION OF DOCUMENTS

Modification of specifications and extension of the closing date of the e-Tender, if required will be made by an addendum. Each addendum will be made available online to all

Bidders. These shall form a part of e-Tender. The Bidder shall not add to or amend the text of any of the documents except in so far as may be necessary to comply with any addendum.

ADDENDA

Addenda form part of the Contract Documents, and full consideration shall be given to all Addenda in the preparation of e-Tender. Bidders shall verify the number of Addenda issued, if any and acknowledge the receipt of all Addenda in the E-TENDER Failure to so acknowledge may cause the e-Tender to be rejected.

A. The Owner may issue Addenda to advise Bidders of changed requirements. Such addenda may modify previously issued Addenda.

B. No addendum may be issued after the time stated in the notice inviting e-Tenders.

IT 18. TAX AND DUTIES ON MATERIALS

All charge on account of excise duties, Central / State, sales tax, work contract tax and other duties etc. on materials obtained for the works from any source shall be borne by the contractors. No (P) or 'C' or 'D' form shall be supplied.

IT 19 EVALUATION OF E-TENDERS

While comparing e-Tenders, the Rajkot Municipal Corporation shall consider factors like price offer is workable with the market price, efficiency and reliability of construction method proposed, compliance with the specifications, relative quality, work done in past with Rajkot Municipal Corporation or other Government Organizations, litigation issues etc. Evaluation criteria specifically mentioned in the specification will also be taken into consideration in the evaluation of e-Tenders.

IT 20 TIME REQUIRED FOR COMPLETION

The completion period mentioned in this schedule is to be reckoned from the date of notice to proceed. Total completion period is as shown in tender notice, from the date of issue of notice to proceed and contractor should adhere to this completion time. Monsoon period from 1st July to 30th September will be considered as non-working period and hence excluded in time limit.

IT 21 POLICY FOR TENDER UNDER CONSIDERATION

TENDER shall be termed to be under consideration from the opening of the e-Tender until such time any official announcement or award is made.

While e-Tenders are under consideration, Bidders and their representative or other interested parties are advised to refrain from contacting by any means any corporations personnel or representatives on matters related to the e-Tenders under study. The Corporation's representatives if necessary will obtain clarification on e-Tenders by requesting such information from any or all the Bidders, either in writing or through personal contact, as may be necessary. The Bidder will not be permitted to change the substance of his e-Tender after e-Tenders have been opened. This includes any post Tender price revision. Non-compliance with his provision shall make the Tender liable for rejection.

IT 22 PRICES AND PAYMENTS

The Bidder must understand clearly that the prices quoted are for the total works or the part of the total works quoted for and include all costs due to materials, labour, equipment, supervision, other services, royalties, taxes etc. and to include all extra to cover the cost. No claim for additional payment beyond the prices quoted will be entertained and the Bidder will not be entitled subsequently to make any claim on any ground.

IT 23 PAYMENT TERMS

The terms of payment are defined in the General Conditions of Contract and Technical specifications. The Corporation shall not under any circumstances relax these terms of payment and will not consider any alternative payment terms. Bidders should therefore in their own interest note this provision to avoid rejection of their e-Tenders.

IT 24 AWARD

Award of the contract or the rejection or E-TENDERS will be made during the Tender validity period. A separate Schedule-B (Price Schedule) is given. The contractors are requested to quote their price offer **in % below or above on the given price in the schedule-B only.**

After all contract contingencies are satisfied and the Notice of Award is issued, the successful Bidder shall execute the Contract Agreement within the time stated and shall furnish the Bond as required herein. The contract Agreement shall be executed, in form stipulated by the Owner.

If the Bidder receiving the Notice of Award fails or refuses to execute the Contract Agreement within the stated time limit or fails or refuses to furnish the Bond as required herein, the Owner may annul his award and declare the e-Tender security forfeited and will take action as deemed fit.

A corporation, partnership firm or other consortium acting as the Bidder and receiving the award shall furnish evidence of its existence and evidence that the officer signing the contract agreement and Bonds for the corporation, partnership firm or other consortium acting as the Bidder is duly authorized to do so.

IT 25 SIGNING OF CONTRACT

The successful Bidder shall be required to execute the contract agreement within 10 days of receipt of intimation to execute the contract, failing which the Corporation will be entitled annul to the award and forfeit the Earnest Money Deposit. The person to sign the contract document shall be person as detailed in Article IT. 13 (signing of e-Tender documents).

IT 26 DISQUALIFICATION

A e-Tender shall be disqualified and will not be taken for consideration if, The Tender Security Deposit is not deposited in full and in the manner as specified as per Article IT. 7 i.e. Earnest Money Deposit.

The e-Tender is in a language other than English or does not contain its English Translation in case of other language adopted for e-Tender preparation.

The e-Tender documents are not signed by an authorized person (as per Article IT. 13 i.e. signing of e-Tender documents).

The general performance data for qualification is not submitted fully (as per Article IT 12 i.e. General performance Data).

Bidder does not agree to payment terms defined as per Article IT. 23 i.e. payment terms.

- A. A e-Tender may further be disqualified if,
- (a) Price variation is proposed by the Bidder on any principle other than those provided in the E-TENDER Documents.
 - (b) Completion schedule offered is not consistent with the completion schedule defined and specified in e-Tender document.
 - (c) The validity of e-Tender is less than that mentioned in Article IT. 11 i.e. e-Tender validity period.
 - (d) Any of the page or pages of e-Tender is/are removed or replaced. (e) Any condition which effect the cost.

IT 27 PERFORMANCE GUARANTEE (SECURITY DEPOSIT)

As a contract security the Bidder to whom the award is made shall furnish a performance guarantee (Security deposit) for the amount of **5%** of the contract price to guarantee the faithful performance, completion and maintenance of the works of the contract in accordance with all conditions and terms specified herein and to the satisfaction of the Engineer-in-charge and ensuring the discharge of all obligations arising from the execution of contract in the forms mentioned below:

A fixed deposit receipt of any Nationalized Bank or Schedule Bank except Co-operative Bank or Nationalized Bank duly endorsed in favour of the **Raikot Municipal Corporation, Raikot.**

The performance guarantee shall be delivered to the Corporation within ten (10) days of the notice of award and at least three (3) days before the contract agreement is signed unless otherwise specified by the Engineer-in-charge. Alternatively, the contractor may at his option deposit an amount of **2.5%** of the value of the contract price within ten days and the balance **2.5%** to be recovered in installments through deduction @ the rate of 10% from the running account bills.

On due performance and completion of the contract in all respects, THE PERFORMANCE GUARANTEE WILL BE RETURNED TO THE CONTRACTOR WITHOUT ANY INTEREST AFTER DEFECT LIABILITY PERIOD IS OVER.

IT 28 STAMP DUTY

The successful Bidder shall have to enter into an agreement on a non-judicial stamp paper of amount as per Stamp duty Act in the form of the agreement approved by the Corporation. The cost of stamp paper and adhesive stamp shall be born by the contractor.

IT 29 BRAND NAMES

Specific reference in the specifications to any material by manufacturer's name, or catalogue shall be constructed as establishing a standard or quality and performance and not as limiting competition and the Bidder in such cases, may at his option freely use only other product, provided that it ensures an equal of higher quality than the standard mentioned and meets Corporation approval.

The material must be approved product in authorized current list. Agency should also provide original certificate in favour of RMC for the despatch of material and authentic despatch certification.

IT 30 NON TRANSFERABLE

E-TENDER documents are not transferable.

IT 31 COST OF e-TENDERING

The owner will not defray expense incurred by Bidders in e-Tendering.

IT 32 EFFECT OF e-TENDER

The e-Tender for the work shall remain for a period of 120 calendar days from the date of opening of the e-Tenders for this work and that the Bidder shall not be allowed to withdraw or modify the offer in his own during the period. If any Bidder withdraws or makes any modification or additions in the terms and conditions of his own e-Tender, then the Corporation shall, without prejudice to any other right or remedy, be at liberty to reject the e-Tender and forfeit the earnest money in full.

IT 33 CHANGE IN QUANTITY

The Corporation reserves the right to waive any information in any e-Tender and to reject one or all e-Tenders without assigning any reasons for such rejection and also to vary the quantities of items or group as specified in the scheduled of prices as may be necessary.

IT 34 NEW EQUIPMENT AND MATERIAL

All materials, equipment and spare parts thereof shall be new, unused and originally coming from manufacturer's plant to the Corporation. The rebuilt or overhauled equipment/materials will not be allowed to be used on works.

IT 35 RIGHTS RESERVED

The owner reserves the right to reject any or all e-Tenders, to waive any informality or irregularity in any e-Tender without assigning any reason. The owner further reserves the right to withhold issuance of the notice to proceed, even after execution of the contract agreement. No payment will be made to the successful Bidder on account of such withholding. The owner is not obliged to give reasons for any such action.

IT 36 ADDITIONAL RIGHTS RESERVED

The Commissioner, Rajkot Municipal Corporation reserves right to reduce the scope of work & split the e-Tender on two or more parts without assigning any reason even after the awards of contract.

IT 37 MOBILIZATION ADVANCE

No mobilization advance or advance on machinery will be given.

IT 38 CONDITIONAL e-TENDERS

The scope of work is clearly mentioned in the e-Tender documents. The contractor shall have to carry out the work in accordance with the details specifications. No condition will be accepted. The conditional e-Tender will liable to be rejected.

IT 39 1% CESS & REGISTRATION:

For the welfare of labour working under construction Industry, the agency shall have to take the registration with competent authority as per Circular No.CWA/2004/841/M-3 dated 30-01-2006 of Government of Gujarat. Rajkot Municipal Corporation will deduct 1% Cess of the value of work and will deposit the same in Government.

IT 40 PROFESSIONAL TAX

The bidder shall have to pay the Professional Tax for current financial year imposed by Government of Gujarat, and also the bidder shall have to produce Enrollment Certificate for the same.

Asst.Engineer
Rajkot Muni. Corporation

Dy.Ex.Engineer
Rajkot Muni. Corporation

CITY ENGINEER (SPECIAL)
Rajkot Muni. Corporation

Signature of Bidder.

Rajkot Municipal Corporation
Additional Instructions to persons tendering

1. **EXAMINATION OF LOCATION:-**

Statement as to the conditions under which the work is to be performed including surveys, measurements, dimensions calculations, estimates, etc. are made solely to furnish a basis of completion of tenders and the Rajkot Municipal Corporation does not guarantee or represent that, they are given approximately correct. The contractor shall satisfy himself by his own inquiry, investigation and search regarding all materials effecting the work to be done and labour and materials needed and shall make himself reliance thereon.

2. The work including in this contract, shall be carried out in accordance with the specifications, rules and regulations as laid down in the books mentioned below in order of the property.

The employer Hand Book Volume I & II, 1949 Edition. If the reference books quoted above fall short for the items quoted in the schedule of this contract, reference shall be made to Indian Standard Specifications of the latest. Edition. If any of the items of this contract are not covered by the reference books quoted above decision and specifications as directed by the CITY ENGINEER (SPECIAL), RMC shall be final. This shall depend on the standard specifications followed the items concerned.

3. **PROGRAMME:**

The Engineer In-Charge may at any time give direction as to in order and manner in which the several parts of the work shall be carried out and the contractor shall strictly observe such directions.

4. **RETURNS:-**

The Contractor shall furnish to the Engineer in charge every week during the progress of the work classified weekly returns.

5. **PROCUREMENT OF PETROLIUM PRODUCTS:-**

The contractor shall submit monthly, the purchase bills for bitumen.

The contractor shall submit the monthly returns in the prescribed forms as to the receipts and actual use of the bitumen, LDO and HSD during the month to the Engineer in charge close of every calander month.

6. **PERMIT & LICENCE :-**

The contractor shall procure his sole expenses all permits and license and pay all charges and fees for lawful execution of the work.

7. **TEMPORARY QUARTERS:-**

The contractor will be required to make his own arrangement for the housing of his staff required as per statutory provision.

8. Conditions regarding medical and sanitary arrangement to be provided by the contractor as per statutory provision.

9. SUB-LETTING OF WORK.

The Contractor will not be permitted to sublet any of the work.

10. EMPLOYMENT OF RESIDENT ENGINEER :-

The contractor shall employ skilled and fully experienced, qualified engineer for carrying out the work. Before employing a skilled and experienced Resident Engineer, the contractor shall obtain the previous permission and approval of the Engineer in charge for making such appointment as to the suitability and eligibility of the Resident Engineer. The Resident Engineer shall be considered at any time to be acting for the contractor with full responsibility in every respect. While submitting such proposal, the qualifications and experience of the persons shall be fully listed. It must be seen that person with proven and sufficient experience shall be preferred.

11. CO-ORDINATION OF SPECIFICATION, PLANT AND SPECIAL PROVISIONS:-

The Standard specifications, the plants, the special provisions and all supplementary documents are essential parts of the contract and requirement occurring in one shall be binding as though in occurring in all. They shall be intended to be co-operative to describe and provide for a complete work. Incase of disagreement the plant shall have precedence over the standard specifications. Figures, dimensions shall given over scale dimension. In any case such variation shall be decided by the Engineer in charge.

12. INSPECTION OF WORK AND MATERIALS:-

- (i) For Resident Engineer, Agent and employees of the contractor, contractor shall provide proper facilities.
- (ii) The inspection of the work shall not relieve the contractor from his obligation to fulfill the terms of the contract as herein prescribed by the plans and specification.
- (iii) The contractor shall furnish written information to the Engineer in charge stating the original sources of supply and dates of manufacturing of all materials brought or manufactured away from the actual site of the work.
- (iv) The contractor shall furnish the Engineer in charge with every reasonable facility as assistance for ascertaining whether or not the work performed is in accordance with the requirements and instructions of the plans and estimates and specification, if so, directed, the contractor any times before and after considered. Necessary for fresh inspection at his own cost. After the inspection, the contractor shall restore the said portion of the work to the conditions required by the specifications at his own cost.
- (v) In order to ensure a proper time sequence for required inspection and approval, this information shall be furnished at least two weeks before of otherwise as directed by the Engineer in charge in advance of the use of incorporation in the work of any such materials and this shall be given in writing by the contractor.
- (vi) Failure to reject any defective work of materials, any time will not in any way, prevent later rejection when such defect is discovered or observed.

13. The contractor shall obtain from employer stations of the place or places, where it is permitted for his to deposit the materials excavated. the

contractor shall accept the site as he finds it, and any work that may be necessary to carry out, the contractor shall be provided for in his contract price.

14. The contractor shall be responsible for the true and proper setting out of the works and for the correctness of the positions, levels, dimensions, and alignments of all parts of the works and for the provisions of all necessary instruments, appliances and labour in connection therewith. If any time, during the progress of the works any error shall appear or arise in the positions, levels, dimensions or alignment or any part of the works. The contractor shall at his own expenses, rectify such errors as are based on the correct data supplied in writing by Engineer in charge in which case the expense of rectifying the same shall be borne by the RMC. The checking or any setting out or any line or level by the engineer in charge or his representative shall not in any way, relieve the contractor of his responsibilities for the correctness thereof. The contractor shall carefully protect and procure bench marks, site, nails, pegs and other things used in setting out work.
15. An order book shall be provided and maintained by the contractor for the work and the contractor shall sign the orders given by the department and shall carry them out. Work order book is the property of the RMC and shall remain in the custody of RMC. That is supervisory staff on duty. Compliance shall be carried out promptly and reported to the Engineer in charge in good time so that work can be checked.
16. EXTRA- ITEM RATE LIST :-
In case of the extra items, the contractor shall invariably supply the rate analysis based on the labour, materials, required in the items along with his quotations for the items. The rate of extra items shall be decided by the competent authority of the department. The final decision of the competent authority of the employer regarding rates, specifications etc. shall be binding upon the contractor. The decision of competent authority shall be final.
17. As petty items occurring in the work and as found necessary actual execution shall be carried out in general as per general specification current in division and as per orders of the Engineer in charge from time to time.
18. It shall be distinctly and clearly understood that commodity of the contract and specifications on the ground of custom prevailing is not to be allowed. Extra charges or claims in respect of the extra works will not be allowed unless the work to which they related is clearly beyond the spirit and meaning of the specifications or unless such work are ordered in the specified manner before the work is taken in hand, in writing by the Engineer in charge.
19. **The contractor shall provide all labour and pegs, levelling machinery, strings and other materials as required for lining and measuring all the work without any payment from the RMC.**
20. The dimensions, figures and drawing etc. shall be followed as supplied by the Engineer in-charge or as directed to generate by taking levels from

time to time. No claims or dispute from contractor shall be entertained due to charge in plans or detailed drawings.

21. The contractor shall provide suitable stones with flat top and temporary bench mark, page, required for lining out and fixing the necessary levels without any extra cost. If required such stones may be build in masonry at such places and in such manner as the Engineer in charge or his Assistant in charge of the work determines.
22. All purpose connected with work, the contractor are required to make their own arrangements for a sufficient supply of water of quality and quantity and at such places on the work as may be order by the Engineer in charge. The rate quoted in the contract are for completed work and shall cover all the contractor's cost in supplying water to the terms stipulated in the clause of this contract. Incase the contractor was to make use of plots, adjacent to work site, for stacking material etc. they have to approach owners of these plots or such other authority and make their own arrangements. The Engineer in charge will not be held responsible for any complaints on such cases from anybody.
23. Every spot on the work and site shall be kept clear of accumulation of debris from time to time.
24. All the materials to be used in the work may from time to time subject to test as per relevant IS or directed by the Engineer in charge at the expenses of the Contractor.
25. Notwithstanding that, all proper precautions may have been taken by the contractor during the progress of the work, the contractor shall be held responsible for all damages, whether to the work under execution or to any property or the persons during the progress of work and the period of maintenance.
- 26. After the completion of the work, the site shall be handed over to the Engineer-in-charge of work, in neat and clean conditions after removing all the rubbish from site campus. Also, dressing upto the new road paver top level, shall have to be done on all the side shoulders either by removing / excavating soil or placing soil if required for road top level. No extra payment or measurement will be given for this side shoulders soil lifting / leveling by providing required additional soil.**
27. The contractor shall as far as possible employ the labour work giving priority to the labour resides locally.

Asst.Engineer
Rajkot Muni. Corporation

Dy.Ex.Engineer
Rajkot Muni. Corporation

CITY ENGINEER (SPECIAL)
Rajkot Muni. Corporation

Signature of Contractor:

FORMATS

Note: The Declaration submitted earlier to this office will not be considered as such a fresh Declaration shall have to be done as on the milestone dates of this tender document

(On Non-Judicial stamp paper of Rs.300/-)

DECLARATION

I / We _____

hereby declared that I / We am / are not partner(s) black listed or Terminated or Debarred or connected with firm black listed or terminated or debarred in any States, CPWD/ MES/ Railways or any Government, Semi- Government or Private body since the inception of the firm / company. Also, no Police complaint is lodged against the firm / company or Staff deployed by me / us.

At present I am / we are registered as approved contractor(s), firms in _____ State, CPWD / MES / Railways.

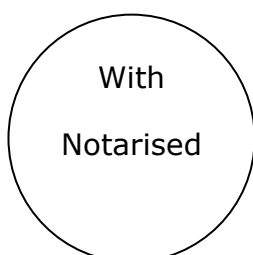
I, owner / We, the partners of this firm, hereby give an undertaking that we are jointly and severally responsible to meet all the liabilities ever and above the business of this firm and make good the above financial loss sustained by the Rajkot Municipal Corporation as a result of our abandoning the works entrusted to us.

I further undertake that if above declaration proves to be wrong/ incorrect or misleading, our tender/ contract stands to be cancelled/ terminated.

Date:

Place:

Signature of Authorized Person



APPLICABILITY OF PROVIDENT FUND AND MISCELLANEOUS PROVISIONS ACT 1952

Successful bidder i.e. the agency whose tender is accepted by the RMC shall have to comply the necessary formalities under the employees provident fund and Miscellaneous Provisions Act, 1952 as Contributory Provident Fund Scheme is applicable to labourers engaged in construction activity and shall have to submit proofs regarding deduction of provident fund and other dues and depositing the same with government department under the act and the scheme regularly on monthly basis failing which no running / final bill payment will be made by the RMC to the contractor in any circumstances.

A certificate to the above effect has to be given by the contractor as under.

Declaration Of Depositing Provident Fund contribution

This to certify that we have deducted the employees 'P.F. and deposited the same along with employer's contribution towards provident fund on labour charges / wages paid by us to the labourer engaged for the work of____with Provident Fund Authority under our Provident Fund Code No. _____

We produce herewith the copies of the challans for the provident fund deduction and contribution deposited as mentioned above.

Date:

Seal and Signature of the Bidder

BIDDER'S FINANCIAL CAPACITY

Sr. No.	Financial Year	Annual Turnover in Engineering Project Rs.	Networth Rs.	Net Cash Rs.	Working Capital Rs.
1	2022-2023				
2	2021-2022				
3	2020-2021				
4	2019-2020				
5	2018-2019				
6	2017-2018				
7	2016-2017				

Note:-

- 1) *Figures to be taken from audited balance sheets. Duly certified attested true copy*
- 2) *Copies of the balance sheet to be attached..*
- 3) *The bidder shall have to provide that for a period of at least 6 Months the bidder has ability to sustain negative cash balance and how he proposes to meet with the same.*
- 4) *Cash Plan / Cash flow Statement.*

AVAILABLE BID CAPACITY

	2016- 17	2017- 18	2018- 19	2019- 20	2020- 21	2021- 22	2022- 23
Value of works executed in Rs. Crores.							

The available bid capacity will be worked out as follows.

Available bid capacity= $(A \times N \times 2) - B$, where

A = Maximum of updated total amount of work executed in any one year of the last seven financial years.

B = The amount of the existing commitments and ongoing works to be discharge during time interval of N years from the bid due date.

N = Number of years prescribed for completion of the proposed works

- : DETAILS OF LITIGATION :-

Name of applicant / or parties

Applicant should provided accurate information on any History of litigation or arbitration resulting from contracts completed or under execution in last five years.

Years	Award for / or against applicant.	Name of client, Cause of litigation & matter of dispute.	Disputed Amount in Rupees.
-------	--	--	-------------------------------

NOTE :-

- [1] The above information shall be supported with necessary documents otherwise the same shall be treated as null & void.
- [2] A consistent history of arbitration awards / judgments against the applicants or any partner of a joint venture may result in disqualification for proposed work.
- [3] If the details of Litigation History is hidden by the applicant and later on it comes to knowledge of the employer the bidder shall be disqualified for the proposed work and other appropriate actions shall be taken against the bidder.

Signature of Bidder

APPENDIX
– A

EACH MEMBER OF THE CONSORTIUM SHOULD GIVE ALL THE DETAILS FOR EACH OF THE FOLLOWING APPENDICES.

Sr	Name of the Consortium Member	Role of the Member	Equity Stake in Project

Signature of Bidder

APPENDIX - B

Financial Resources in ongoing projects

Sr	Description of ongoing projects	Total cost of work / contract	Members contribution (%)	Funds required to be contributed

Signature of Bidder

APPENDIX - C

FINANCIAL INFORMATION

Annual Turnover in Rs. Lakhs			
Year	Civil Engineering Projects	Other Projects	Total
1	2	3	4

APPENDIX – D
SIMILAR WORKS COMPLETED AS A MAIN CONTRACTOR IN LAST SEVEN YEARS.

Sr. No	Name of the work	Name & address of client with contact number	Type of work	Quantity	Date of award	Time of completion	Whether Project Under Litigation (Yes / No.) & reasons thereof

Signature of Contractor

APPENDIX – E
EXPERIENCE IN OTHER PROJECTS AS A MAIN CONTRACTOR

Sr No	Name of work with details of client and contact number	Cost of work in Lakhs	Date of award and Time of completion	Whether Project Under Litigation (Yes/No) & reasons thereof

Signature of Contractor

APPENDIX – F

WORKS FOR WHICH BIDS ALREADY SUBMITTED

Description of work	Place and State	Estimated Value of works Rs. In Lakhs	Stipulated period of completion	Date when decision is expected	Remarks if any
1	2	3	4	5	6

APPENDIX – G

INFORMATION ON BID CAPACITY (WORK FOR WHICH BIDS HAVE BEEN SUBMITTED AND WORKS WHICH ARE YET TO BE COMPLETED) AS ON THE DATE OF THIS BID (A) EXISTING COMMITMENTS AND ON-GOING WORKS

Description of Work	Place and state	Contract No. & Date	Name and Address of the Employer	Value of Contract Rupees in Lakhs	Stipulated period of completion	Value of works remaining to be completed	Anticipated date of completion.
1	2	3	4	5	6	7	8

APPENDIX – H

EXPERIENCE AS MAIN CONTRACTOR

Project Details including title and location	Contract Cost (Rs.in Lakhs)	Contract period (Start date - End date)	Actual cost at the end of contract (Rs. In Lakhs)	Actual Contract period (start date - End date)	Name, Address, Phone and Fax No. of the Owner's representative who could be contacted.

Signature of Contractor

**PLANT & EQUIPMENT PROPOSED TO BE DEPLOYED BY THE APPLICANT FOR USE
ON THE ROAD WORK**

Sr. No.	Name of equipment	Total requirement			Equipment in hand			Equipment to be procured		
		No. of units for the Project	Kind and make	Capacity	No. of each	Year of Manu. & Present condition	Name of owner	No. of each	Capacity	Through purchase / Lease
1	2	3	4	5	6	7	8	9	10	11
1	Tipper Trucks	10								
2	Dozer	2								
3	Front end Loader	2								
4	Smooth Wheeled Roller	2								
5	Vibratory Roller	2								
6	Continuous Batch mix plant (Min. 120 TPH)	1								
7	Paver Finisher with electronic sensor	1								
8	Water Tanker	2								
9	Bitumen Sprayer	1								
10	PTR Roller	1								
11	Concrete Mixture	2								
12	Screed Vibrator/ Pin Vibrator	2								
13	Mortar Grader	2								
14	Vacuum Dewatering Machine & Dish Vibrator	1								

- Note :**
- [1] The bidder shall have to assure availability of machinery / equipment in working condition as prescribed
 - [2] Machinery / Equipment ownership as lease / hire agreement for the work under tender shall be considered as valid proof for assured availability.
 - [3] The location of machinery should be furnished in detail i.e. [i] Site of work [ii] Own workshop [iii] Other places.
 - [4] Describe the fabrication and workshop facilities [a] to be set up site [b] to be sub contracted locally.
 - [5] If leased indicate the date when the current lease expires.

Signature of Bidder

General Information Details

Estimated Amount (Rs.)			Tender Fee	EMD						
6,34,90,000/-			15,000/-	6,34,900/-						
Name of Agency		Registration No./Class (Mini. "A" Class) & Above	Tender Fee Detail	EMD Details	Turnover Details Last Seven Years Average			Solvency Not Less than 75 Lakhs	Available Bid Capacity (working Capital) As per Formula $ABC = 2*A*N-B$ (Minimum)	Details of Certificate attached for Experience of Min. of single work.
		Issuing Authority			Year	enhancement factor to be multiplied	Turn Over in Rs. with enhancement factor	Working Capital not Less Than 25% of Tender Amount	Maximum Value of work Executed in any one Year During the last Seven (up date to present price level by applying enhancement factor --- 10% above) years taking in to account	Name of Work Amount
Address		Class	Name of Bank & Bank Code, City	Name of Bank & Bank Code, City	2016-17	1.95		Name of Bank & Bank Code, City	Value (present price level by applying enhancement factor) of existing commitments and on-going works to be completed during that next N year (period of completion of	
					2017-18	1.77				
					2018-19	1.61				
Phone		Permission No.	Draft No.	Draft No.	2019-20	1.46		Solvency No.	Number of years prescribed for completion of the works for which tenders are invited	
Fax		Date :-	Draft Date	Draft Date	2020-21	1.33		Date	$A = \text{Max Value} \times \text{Enhancement factor}$	
E-mail Address		Letter No			2021-22	1.21			$N = \text{Next N Year}$	
					2022-23	1.10			$B = \text{Present Value}$	
					Average				$\text{Bid Capacity} = (2*A*N) - B$	
									Attach the Calculation sheet and Mention Figure Here	

To derive B- Present Value Value (present price level by applying enhancement factor) of existing commitments on-going (i.e. Running) works Statement has been attached herewith.

Above Financial Details are True

Contractor Sign & Seal

Application Form(1)

General Information

All individual firms and each partner of a consortium applying for qualification are requested to complete the information in this form. Nationality information to be provided for all owners or applicants who are partnerships or individually-owned firms.

Where the Applicant proposes to use named subcontractors for critical components of the works, or for work contents in excess of 10 percent of the value of the whole works the following information should also be supplied for the specialist subcontractor(s).

1.	Name of Firm	
2.	Head office address	
3.	Telephone	Contact
4.	Fax	Telex
5.	Place of incorporation/registration	Year of incorporation/ registration

	Nationality of owners	
	Name	Nationality
1.		
2.		
3.		
4.		
5.		

Name of Bidders officers / Persons to be contacted			
Name.	Address	Phone Nos.	Fax.

Application Form (1A)

Structure and Organization

The applicant is an individual a proprietary firm a firm in partnership a Limited Company or Corporation a group of firms/consortium (if Yes, give completion information in respect of each partner)	
Attach the Organization Chart showing the structure of the organization including the names of the Directors and position of officers	
Number of years of experience : as a Prime Contractor (contractor shouldering major responsibility in own country other countries (specify country)	
in a consortium in own country other countries (Specify country)	
as a sub-contractor (specify main contractor) in own country other countries (Specify country)	
4. Name and address of any associates the applicant has in India (in case the applicant happens to be from foreign country) who are knowledgeable in the procedures of customs, immigration, taxes and other information necessary to do the work.	
For how many years has your organization been in business of similar work under its present name? What were your fields when your organization was established? Whether any new fields were added in your organization? And if so, when?	

5. Were you ever required to suspend construction for a period of more than six months continuously after you started? If so, give the name of project and give reasons thereof.	
6. Have you ever left the work awarded to you incomplete? If so, give name of project and reasons for not completing work.	
In which fields of civil engineering construction do you claim specialization and interest?	
Give details of your experience in mechanized paver finishing and in modern concrete technology for manufacture and quality control.	
Give details of your experience in using heavy earth moving equipment and quality control in compaction of soils.	
Give details of your experience in this type of road work done earlier	

CONTRACT

SCHEDULE : H

- : ADDITIONAL INFORMATION

:-

(The applicant can add here any further information relevant to the evaluation of their pre-qualification bid)

NOTE :- The above information shall be supported with necessary documents
Otherwise the same shall be treated as null & void.

Signature of Applicant

APPENDIX – I

DETAILS OF PLANT & EQUIPMENT OWNED BY THE CONTRACTOR

Name of Plants / Equipments	Make of Plants / Equipments	Details of the RTO registration	Cost of Plants / Equipment	Location where the Plants / Equipment located

GENERAL CONDITIONS OF CONTRACT

:: TABLE OF CONTESTS ::

No.	Description
GC-1	Definitions and Interpretations
GC-2	Location of site and accessibility
GC-3	Scope of work
GC-4	Ruling language
GC-5	Interpretation of Contract Document
GC-6	Contractor to understand himself fully
GC-7	Errors in submissions
GC-8	Sufficiency of E-TENDER
GC-9	Discrepancies
GC-10	Performance Guarantee (Security Deposit)
GC-11	Inspection of work
GC-12	Defect Liability
GC-13	Power of Engineer-In-Charge to give further instructions.
GC-14	Programme
GC-15	Sub-letting of work
GC-16	Sub-Contracts for temporary works, etc.
GC-17	Time for completion
GC-18	Extension of time
GC-19	Contract Agreement
GC-20	Liquidated damages
GC-21	Forfeiture of Security Deposit
GC-22	Action of Forfeiture of Security Deposit
GC-23	No compensation for alteration in or restriction in work
GC-24	In the event of death of contractor
GC-25	Members of the owner not individually liable
GC-26	Owner not bound by personal representations
GC-27	Contractor's office at site
GC-28	Contractor's subordinate staff and their conduct
GC-29	Termination of sub-contract by owner
GC-30	Power of entry
GC-31	Contractor's responsibility with the other Contractor and Agencies.
GC-32	Other Agencies at site
GC-33	Notices
GC-34	Rights of various interests
GC-35	Price adjustments
GC-36	Terms of Payment
GC-37	Retention Money
GC-38	Payments due from the Contractor
GC-39	Contingent Fee
GC-40	Breach of Contract by Contractor
GC-41	Default of Contractor
GC-42	Bankruptcy
GC-43	Ownership
GC-44	Declaration against waiver
GC-45	Laws governing the contract
GC-46	Over payment and under payment
GC-47	Settlement of disputes
GC-48	Disputes of differences to be referred to
GC-49	DELETED
GC-50	Termination of the Contract

GC-51	Special risks
GC-52	Change in Constitution
GC-53	Sub-contractual relations
GC-54	Patents and Royalties
GC-55	Lien
GC-56	Execution of work
GC-57	Work in monsoon
GC-58	Work on Sundays and Holidays
GC-59	General Conditions for construction work
GC-60	Drawings to be supplied by the Owner
GC-61	Drawings to be supplied by the Contractor
GC-62	Setting outwork
GC-63	Responsibilities of Contractor for correctness of work
GC-64	Materials to be supplied by the Owner
GC-65	Conditions of issue of materials by the Owner
GC-66	Materials procured with assistance of the Owner
GC-67	Materials obtained from dismantling
GC-68	Article of value of treasure found during construction
GC-69	Discrepancies between instructions
GC-70	Alternations in specifications and designs and extra work.
GC-71	Action when no specifications are issued
GC-72	Abnormal rates
GC-73	Assistance to Engineer-In-Charge
GC-74	Tests for quality of work
GC-75	Action and compensation in case of bad workmanship
GC-76	Suspension work
GC-77	Owner may do part of the work
GC-78	Possession prior to completion
GC-79	Completion Certificate
GC-80	Schedule of Rates
GC-81	Procedure for measurement of work in progress
GC-82	Running account payments to be regarded as advances
GC-83	Notice for claim for additional payment
GC-84	Payment of Contractor's Bill
GC-85	Final Bill
GC-86	Receipt for payment
GC-87	Completion Certificate
GC-88	Taxes, Duties, etc.
GC-89	Insurance
GC-90	Damage to Property
GC-91	Contractor to Indemnify Owner
GC-92	Implementation of Apprentice Act 1954
GC-93	Health and Sanitary arrangements for workers
GC-94	Safety Code
GC-95	Accidents

GC-01 DEFINITIONS AND INTERPRETATIONS :

1.0 In the contract (as hereinafter defined) the following words and expressions shall, unless repugnant to the subject or context thereof, have the following means as signed to them.

1.1 The "Owner / Corporation" shall mean Rajkot Municipal Corporation and shall include its Municipal Commissioner or other Officers authorized by the Corporation and also include owner's successors and assignees.

1.2 The "Contractor" shall mean the person or the persons, firm or Company whose e-Tender has been accepted by the Owner and includes the Contractor's legal representative, his successors and permitted assignee.

1.3 DELETED

1.4 The "Engineer-In-Charge" shall mean the person designated as such by the owner from time to time and shall include those who are expressly authorized by the Corporation to act for and on its behalf for all functions pertaining to the operation of this contract.

1.5 Engineer-In-Charge's Representative shall mean any resident Engineer or Assistant to the Engineer-In-Charge appointed from time to time by the owner to perform duties set forth in the E-TENDER Document whose authority shall be notified in writing to the Contractor by the Engineer-In-Charge.

1.6 "E-TENDER" – the offer or proposal of the Bidder submitted in the prescribed form setting forth the prices for the work to be performed, and the details thereof.

1.7 "Contract Price" shall mean total money payable to the Contractor under the contract.

1.8 "Addenda" shall mean the written or graphic notices issued prior to submission of e-Tender which modify or interpret the contract documents.

1.9 "Contract Time" – the time specified for the completion of work.

1.10 "Contract" shall mean agreement between the parties for the execution of works including therein all contract documents.

1.11 "Contract Document" shall mean collectively the e-Tender documents, designs, drawings, specifications, agreed variations, if any and such other documents constituting the e-Tender and acceptance thereof.

1.12 "The Sub-Contractor" shall mean any person, firm or company (other than the Contractor) to whom any part of the work has been entrusted by the Contractor with the written consent of the Engineer-In-Charge and the legal representative successors and permitted assignee of such person, firm or company.

1.13 The "Specifications" shall mean all directions, the various Technical Specifications, provisions and requirements attached to the contract which pertain to the method and manner of performing the work, to the quantities and qualities of the work and the materials to be furnished under the contract for the work and any order(s) or instruction(s) thereunder. It shall also mean the latest Indian Standard Institute Specification relative to the particular work or part

thereof, so far as they are not contrary to the E-TENDER specifications and in absence of any other Country applied in Indian as a matter of standard engineering practice and approved in writing by the Engineer-In-Charge with or without modification.

1.14The "Drawings" shall include maps, plans, tracings, or prints thereof with any modification approved in writing by the Engineer-In-Charge and as such other drawings as may, from time to time, be furnished or approved in writing by the Engineer-In-Charge in connection with the work.

1.15The "Work" shall mean the works to be executed in accordance with the contract or the part thereof as the case may be and shall include extra, additional, altered or substituted works as required for the purpose of the contract. It shall mean the totality of the work by expression or implication envisaged in the contract and shall include all materials, equipment and labour required for or relative or incidental to or in connection with the commencement, performance and completion of any work and / or incorporation in the work.

1.16The "Permanent Work" shall mean works which will be incorporated in and form part of the work to be handed over to the owner by the Contractor on completion of the contract.

1.17The "Temporary Work" shall mean all temporary works of every kind required in or about the execution, completion and maintenance of the work.

1.18"Site" shall mean the land and other places, on, under, in or through which the permanent works are to be carried out and any other lands or places provided by the Corporation for the purpose of the contract together with any other places designated in the contract as forming part of the site.

1.19The "Construction Equipment" shall mean all appliances / equipment of whatever nature required in or for execution, completion or maintenance of works or temporary works (as herein before defined) but does not include materials or other things intended to form or forming part of the permanent work.

1.20"Notice in writing or written Notice" shall mean a notice written, typed or in printed form delivered personally or sent by Registered Post to the last known private or business address or Registered Office / Email or SMS on the Mobile of the Contractor and shall be deemed to have been received in the ordinary course of post it would have been delivered.

1.21The "Alteration / variation order" shall mean an order given in writing by the Engineer-In-Charge to effect additions or deletions from or alterations in the work.

1.22"Final Test Certificate" shall mean the final test certificate issued by the owner within the provisions of the contract.

1.23The "Completion Certificate" shall mean the certificate to be issued by the Engineer-In-Charge when the work has been completed and tested to his satisfaction.

1.24The "Final Certificate" shall mean the final certificate issued by the Engineer-In-Charge after the period of defects liability is over and the work is

finally accepted by the owner.

1.25"Defects Liability Period" shall mean the specified period between the issue of Completion Certificate and the issue of final certificate during which the Contractor is responsible for rectifying all defects that may appear in the works.

1.26"Approved" shall mean approved in writing including subsequent confirmation in writing of previous verbal approval and "Approval" means approved in writing including as aforesaid.

1.27"Letter of Acceptance" shall mean an intimation by a letter to Bidder that his e-Tender has been accepted in accordance with the provisions contained therein.

1.28"Order" and "Instructions" shall respectively mean any written order or instruction given by the Engineer-In-Charge within the scope of his powers in terms of the contract.

1.29"Running Account Bill" shall mean a bill for the payment of "On Account" money to the Contractor during the progress of work on the basis of work done and the supply of non-perishable materials to be incorporated in the work.

1.30"Security Deposit" shall mean the deposit to be held by the owner as security for the due performance of the contractual obligations.

1.31The "Appointing Authority" for the purpose of Arbitration shall be the Municipal Commissioner, Rajkot Municipal Corporation.

1.32."Retention Money" shall mean the money retained from R.A.Bills for the due completion of the "LET WORKS".

1.33Unless otherwise specifically stated, the masculine gender shall include the feminine and neuter genders and vice-versa and the singular shall include the plural and vice-versa.

GC-02 LOCATION OF SITE AND ACCESSIBILITY :

The work is to be carried out in the City area. Non-availability of access roads shall in no case be the cause to condone delay in the execution of the work and no claim or extra compensation will be paid. The intending bidder should inspect the site and make himself familiar with site conditions.

GC-03 SCOPE OF WORK :

The scope of work is defined broadly in the special conditions of contract and specifications. The Contractor shall provide all necessary materials, equipment and labour etc. for the execution and maintenance of the work. All material that go with the work shall be approved by the Engineer-In-Charge prior to procurement and use.

Power Supply :

The Contractor shall make his own arrangement for power supply during installation.

Land for Contractor's Field Office, Godown Etc.:

Owner will not be in a position to provide land required for Contractor's field office,

godown, etc. The Contractor shall have to make his own arrangement for the same.

GC-04 RULING LANGUAGE :

The language according to which the contract shall be construed and interpreted shall be English. All entries in the contract document and all correspondence between the contractor and the Corporation or the Engineer-In-Charge shall be in English/Gujarati. All dimensions for the materials shall be given in metric units only. A reasonable proportion of the contractor's superintending staff shall have a working knowledge of Gujarati and/or Hindi language or the contractor shall have sufficient competent interpreters available for communications.

GC-05 INTERPRETATION OF CONTRACT DOCUMENT :

1. The provision of the General Conditions of Contract and Special Conditions of Contract shall prevail over those of any other documents of the contract unless specifically provided otherwise, should there be any discrepancy, inconsistency, error or omission in the several documents forming the contract, the matter may be referred to the Engineer-In-Charge for his instructions and decision. The Engineer-In-Charge's decision in such case shall be final and binding to the Contractor.
2. Works shown upon the drawings but not described in the specifications or described in the specifications without showing on the drawings shall be taken as described in the specifications and shown on the drawings.
3. The headings and the marginal notes to the clause of these General Conditions of Contract or to the specifications or to any other part of e-Tender documents are solely for the purpose of giving a concise indication and not a summary of contents thereof. They shall never be deemed to be part thereof or be used in the interpretation or construction of the contract.
4. Unless otherwise stated specifically, in this contract documents the singular shall include the plural and vice-versa wherever the context so requires. Works imparting persons shall include relevant Corporations / Body of individual / firm of partnership.
5. Notwithstanding the sub-division of the documents into separate section and volumes every part of each shall be supplementary to and complementary of every other part and shall be read with and into the context so far as it may be practicable to do so.
6. Where any portion of the General Conditions of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract, then, unless a different intention appears, the provisions of the special conditions of contract shall be deemed to override the provisions of General Conditions of Contract to the extent of each repugnancy of variance.
7. The materials, design, and workmanship shall satisfy the relevant BIS, and codes referred to. If additional requirements are shown in the specifications, the same shall be satisfied over and above BIS and other codes.
8. If the specifications mention that the Contractor shall perform certain work or provide certain facilities, it shall mean that the Contractor shall do so at his own

cost.

9. Contractor to Collect His Own Information -

The details given in the e-Tender are arranged making necessary investigations for framing an estimate. However, when the work is being executed, changes in soil conditions are likely to be met with in view of the formation of soil, strata in Rajkot District. It is, therefore, desirable that the Contractor makes his own investigations or additional investigations as may be required for correctly assessing the cost of different items of work and submit his e-Tender accordingly. Any change in description or quantity of an item shall not vitiate the contract or release the Contractor from executing the work comprised in the contract according to the drawings and specifications at the e-Tendered rates.

He is deemed to have know the scope, nature and magnitude of the work and the requirements of materials and labour involved and as to whatever work he has to complete in accordance with the contract. The Contractor is expected to visit the site and surroundings to satisfy himself as to the nature of all existing structures, if any, and also as to the nature and the conditions of railways, roads, bridges and culverts, means of transport and communications whether by land, air or water and as to possible interruptions thereto and the access and gross from the site, to have examined and satisfied himself as to the sites for obtaining sand, stones, bricks and other materials, the site for disposal of surplus materials, the available accommodation and make such enquiries as may be necessary for executing and completing the work, to have local enquiries as to the sub-soil, subsoil water and variation thereof, storms, prevailing winds, climatic conditions and all other similar matters, effecting work. He is expected to be familiar with his liability for payment of Government taxes, customs and excise duty and other charges etc. in contract with the execution of this contract. The contractor shall have to a certificate for this.

GC-06 CONTRACTOR TO UNDERSTAND HIMSELF FULLY :

The Contractor by e-Tendering shall be deemed to have satisfied himself, as to all considerations and circumstances affecting the e-Tender price, as to the possibility of executing the works as shown and described in the contract and to have fixed his prices according to his own view on these matters and to have understood that no additional allowances except as otherwise expressly provided, will afterwards be made beyond the contract price. The Contractor shall be responsible for any misunderstanding or incorrect information, however, obtained.

GC-07 ERRORS IN SUBMISSIONS :

The Contractor shall be responsible for any errors or omissions in the particulars supplied by him, whether such particulars have been approved by the Engineer-In-Charge or not.

GC-08 SUFFICIENCY OF e-TENDER :

The Contractor shall be deemed to have satisfied himself before e-Tendering as to the correctness of the e-Tender rates which rates shall, except as otherwise provides for, cover all the Contractor's liabilities and obligations set forth or implied in the contract for the proper execution of the work for compliance with requirements of Article GC-19 thereof.

GC-09 DISCREPANCIES :

The drawings and specifications are to be considered as mutually explanatory of

each other, detailed drawings being followed in preference to small-scale drawings and figured dimensions in preference to scale and special conditions in preference to General Conditions. The special directions or dimensions given in the specifications shall supercede all else. Should any discrepancies however, appear or should any misunderstanding arise as to the meaning and intent of the said specifications or drawings, or as to the dimensions or the quality of the materials or the due and proper execution of the works, or as to the measurement or quality and valuation of the work executed under this contract or as extra there upon, the same shall be explained by the Engineer-In-Charge and his explanation shall be subject to the final decision of the Municipal Corporation in case reference be made to it, be binding upon the Contractor and the Contractor shall execute the work according to such explanation and without addition or to deduction from the contract price and shall also do all such works and things necessary for the proper completion of the works as implied by the drawings and specifications, even though such works and things are not specially shown and described in the said specifications. In cases where no particular specifications are given for any article to be used under the contract, the relevant specifications of the Indian Standard Institution shall apply.

GC-10 PERFORMANCE GUARANTEE (SECURITY DEPOSIT) :

1.A sum of 5% of the accepted value of the e-Tender for **FIVE YEARS** shall be deposited by the Bidder (hereinafter called the contractor when e-Tender is accepted) as security deposit with the owner for the faithful performance, completion and maintenance of the works in accordance with the contract documents and to the satisfaction of the Engineer-In-Charge and assuring the payment of all obligations arising from the execution of the contract. This shall be deposited in one of the forms mentioned below :

- a. By a Demand Draft on the Rajkot Branch of any Nationalized Bank or Scheduled Bank except co-operative bank.
- b. A Fixed Deposit Receipt of a any Nationalized Bank or Schedule Bank duly endorsed in favour of the "RAJKOT MUNICIPAL CORPORATION", Rajkot.
- c. The Contractor may pay 2.5% of the value of works as initial security deposit and the balance 2.5% shall be recovered in installments through deductions at the rate of 10 (ten) percent of the value of each Running Account Bill till the total security execution exceeds the accepted value of e-Tender because of allotment of further work, further recoveries towards security deposit shall be effected at 10% of the R A Bills to make up the five percent security deposit of the revised value of contract. Alternatively, the Contractor may at his option deposit the full amount of 5 percent of security deposit within ten days of receipt by him of the notification accepting the e-Tender in the form as aforesaid.**The Performance Guarantee (Security Deposit) will be released to the contractor without any interest after defect liability period is over.**

2.If the Contractor, sub-contractor or their employees shall break, deface or destroy any property belonging to the owner or other agency during the execution of the contract, the same shall be made good by the contractor at his own expense and in default thereof, the Engineer-In-Charge may cause the same to be made good by other agencies and recover expense from the Contractor (for which the certificate of the Engineer-In-Charge shall be final).

These expense can be recovered from the security deposit if recovery from other sources is not possible. The amount as reduced in security deposit will be made good by deduction from the next R A Bill of the Contractor.

GC-11 INSPECTION OF WORK :

1. The Engineer-In-Charge shall have full power and authority to inspect the work at any time wherever in progress either on the site or at the Contractor's or any other manufacturer's workshop or factories wherever situated and the Contractor shall afford to Engineer-In-Charge every facility and assistance to carry out such inspection, Contractor or his authorized representative shall, at all time during the usual working hours and all times when so notified, remain present to receive orders and instructions.

Orders given to Contractor's representative shall be considered to have the same force as if they had been given to the Contractor himself. Contractor shall give not less than ten (10) days notice in writing to the Engineer-In-Charge before covering up or otherwise placing beyond reach of inspection and measurement any work in order that the same may be inspected and measured. In the event of breach of the above, the same shall be uncovered at Contractor's expenses for carrying out such inspection or measurement.

2. No material shall be despatched from Contractor's store on site of work before obtaining approval in writing of the Engineer-In-Charge. Contractor shall provide at all times during the progress of work and maintenance period of proper means of access with ladders, gangways, etc. and make necessary arrangement as directed for inspection or measurement of work by Engineer-In-Charge.

GC-12 DEFECT LIABILITY :

1. Contractor shall guarantee the work for a period of **Five Years** from the date of issue of Completion Certificate. Any damage or defect that may arise or that may remain undiscovered at the time of issue of Completion Certificate connected in any way with the equipment or materials supplied by him or in the workmanship shall be rectified or replaced by Contractor at his own expense as desired by Engineer-In-Charge or in default Engineer-In-Charge may cause the same to be made good by other agency and deduct expenses of which the certificate of Engineer-In-Charge shall be final from any sums that may then or any time thereafter become due to Contractor or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof.
2. From the commencement to completion of work Contractor shall take full responsibility for the care of the work including all temporary works and in case any damages, occur from any cause whatsoever he shall at his own cost, repair and make good the same so that on completion, work shall be in good order and in conformity, in every respect, with the requirements of contract and as per the instructions of the Engineer-In-Charge.
3. If at any time before the work is taken over, the Engineer-In-Charge –
 - a) Decide that any work done or materials used by the Contractor are defective or not in accordance with the contract or that work or any portion thereof is defective or do not fulfill the requirements of contract (all such materials being herein after called defects in this clause) he shall, as soon as reasonably practicably, give notice to Contractor in writing of the

said defect specifying particulars of the same then Contractor shall at his own expense and with all speed make good the defects so specified.

- b) b) In case Contractor fails to do so, owner may take, at the cost of the Contractor, such stops as may in all circumstances be responsible to make good such defects. The expenditure so incurred by owner will be recovered from the amount due to Contractor. The decision of Engineer-In-Charge with regard to the amount to be recovered from Contractor will be final and binding on the Contractor.

GC-13 POWER OF ENGINEER-IN-CHARGE TO GIVE FURTHER INSTRUCTIONS :

The Engineer-In-Charge shall have the power and authority from time to time and at all times to give further instructions and directions as may appear to him necessary or proper for the guidance of the Contractor and the works and efficient execution of the works according to the terms of the specifications, and the Contractor shall receive, execute, obey and be bound by the same, according to the true intent and meaning thereof, as fully and effectively as though the same had accompanied or had been mentioned or referred to in the specifications. No work which radically changes the original nature of the contract shall be ordered by the Engineer-In-Charge and in the event of any deviation being ordered, which in the opinion of the Contractor changes the original nature of the contract, he shall nevertheless carry it out and any disagreement as to the nature of the work and the rate to be paid to thereof shall be resolved.

The time of completion of works shall, in the event of any deviations being ordered resulting in additional cost or reduction in cost over the contract sum, be extended or reduced reasonably by the Engineer-In-Charge. The Engineer-In-Charge's decision in the case shall be final and binding.

GC-14 PROGRAMME :

The time allowed for execution of works shall be the essence of the contract. The contract period shall commence from the date of notice of intimation to proceed. The Bidder at the time of submitting his e-Tender shall indicate in the construction schedule his programme of execution of work commencement with the total time specified. The Contractor shall provide the Engineer-In-Charge a detailed programme of time schedule for execution of the works in accordance with the specifications and the completion date. The entire programme to be finalized by the Contractor, has to conform to the execution period mentioned along with the Bill of Quantities in the e-Tender documents. The Engineer-In-Charge upon scrutiny of such submitted programme by Contractor, shall examine suitability of it to the requirement of contract and suggest modifications, if found necessary.

GC-15 SUB-LETTING OF WORK :

No part of the contract nor any share of interest thereon shall in any manner or degree be transferred, assigned or sublet by the Contractor directly or indirectly to any person, firm or Corporation whosoever except as provided for in the succeeding sub-clause, without the consent in writing of the owner.

GC-16 SUB-CONTRACTS FOR TEMPORARYWORKS ETC. :(N.A.)

The owner may give written consent to sub-contractors for execution of any part of the works at the site, being entered upon the contractor provided each individual contract is submitted to the Engineer-In-Charge before being entered into and is

approved by him. List of sub-contractors to be supplied.

Notwithstanding any subletting with such approval as aforesaid and notwithstanding the Engineer-In-Charge shall have received of any sub-contractors, the Contractor shall be and shall remain solely responsible for the quality and proper and expeditious execution of the works and the performance of all the conditions of contract in all respects as if such subletting or subcontracting had not taken place and as if such works had been done directly by the Contractor.

GC-17 TIME FOR COMPLETION :

- 1.The work covered under this contract shall be commenced from the date the Contractor is served with a notice to proceed with the work and shall be completed before the date as mentioned in the time schedule of work. The time is the essence of the contract and unless the same is extended as mentioned in Clause GC-18 "Extension of Time", the Contractor shall pay liquidated damages for the delay.
- 2.The general time schedule for construction is given in the e-Tender document. Contractor shall prepare a detailed weekly or monthly construction programme in consultation with the Engineer-In-Charge soon after the agreement and the work shall be strictly executed accordingly.

The time for construction includes the time required for testing, rectifications, if any, retesting and completion of the work in all respects to the entire satisfaction of the Engineer-In-Charge.

GC-18 EXTENSION OF TIME :

Time shall be considered as the essence of the contract. If, however, the failure of the Contractor to complete the work as per the stipulated dates referred to above arises from delays on the part of Corporation in supplying the materials or equipment, it has undertaken to supply under the contract or from delays on the quantity of work to be done under the contract, or force majeure an appropriate extension of time will be given by the Corporation. The Contractor shall request for such extension within one month of the cause of such delay and in any case before expiry of the contract period.

GC-19 CONTRACT AGREEMENT :

The successful Bidder shall enter into and execute the contract agreement within 10 (ten) days of the notice of award, in the form shown in e-Tender documents with such modifications as may be necessary in the opinion of the Corporation. It shall be incumbent on the Contractor to pay the stamp duty and the legal charges for the preparation of the contract agreement.

GC-20 LIQUIDATED DAMAGES :

If the Contractor fails to complete the work or designated part thereof within the stipulated completion date for the work or for the part, he shall pay liquidated damages at 0.1 (zero point one) percent of contract value for per day of delay subject to maximum of 10% of the contract value or as decided by Municipal Commissioner.

The Contractor shall complete one-sixth quantum of work within one fourth period, four-tenth quantum of work within one-half period and eight-tenth quantum of work within three-fourth period, failing which, the Contractor shall be liable to pay liquidated damages an amount as specified above, or as decided by Municipal

Commissioner.

The amount of liquidated damages shall, however, be subjected to a maximum of 10 percent of the contract value. Delay in excess of 100 days shall be a cause for termination of the contract and forfeiture of all security for performance.

GC-21 FORFEITURE OF SECURITY DEPOSIT :

Whenever any claim against the Contractor for the payment of a sum of money out of or under the contract arises, the Corporation shall be entitled to recover such sum by appropriating in part or whole, the security deposit of the Contractor. In case the security deposit is insufficient, the balance recoverable shall be deducted from any sum then due or which at any time thereafter may become due to the Contractor. The Contractor shall pay to the owner on demand any balance remaining due.

GC-22 ACTION OF FORFEITURE OF SECURITY DEPOSIT :

In any case in which under any Clause or Clauses of the contract, the Contractor shall committed a breach of any of the terms contained in this contract, the owner shall have power to adopt any of the following courses as he may deem best suited to his interest.

- a) To rescind the contract (of which recession notice in writing to the contractor under the hand of the owner shall be conclusive evidence) in which case the security deposit of the Contractor shall stand forfeited and be absolutely at the disposal of the owner.
- b) To employ labour and to supply materials to carry out the balance work debiting Contractor with the cost of labour employed and the cost of materials supplied for which a certificate of the Engineer-In-Charge shall be final and conclusive against the Contractor and 10% of costs on above to cover all departmental charges and crediting him with the value of work done at the same rates as if it has been carried out by the Contractor under the terms of his contract. The certificate of Engineer-In-Charge as to the value of the work done shall be final and conclusive against the Contractor.
- c) To measure up the work of the contractor and to take such part thereof as shall be unexecuted out of his hand and give it to another Contractor to complete, the same. in this case the excess expenditure incurred than what would have been paid to the original Contractor, if the whole work had been executed by him, shall be borne and paid by the original Contractor and shall be deducted from any money due to him by the owner under the contract or otherwise and for the excess expenditure, the certificate of the Engineer-In-Charge shall be final and conclusive.

In the event any of the above courses being adopted by the owner, the Contractor shall have no claims for compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any agreements or made any advance on account of or with a view to the execution of the work or the performance of the contract.

In purchase the Contractor shall not be entitled to recover or be paid any sum for any work actually performed under this contract unless the Engineer-In- Charge will certify in writing the performance of such work and the value payable in

respect thereof and he shall only be entitled to be paid the value so certified.

In the event of the owner putting in force the powers as stated in a, b, c, above vested in him under the proceeding clause, he may, if he so desires, take possession of all or any tools and plant, materials and stores in or upon the works or the site thereof belonging to the Contractor, or procured by him and intended to be used for the execution of the work or any part thereof paying or allowing for the same in account at the contract rates to be certified by the Engineer-In-Charge. The Engineer-In-Charge may give notice in writing to the Contractor or his representative requiring him to remove such tools, plant, materials or stores from the premises within the time specified in the notice and in the event of the Contractor failing to comply with any such notice, the Engineer-In-Charge may remove them at the Contractor's expenses or sell them by auction or private sale on account of the Contractor and his risks in all respects without any further notice as to the date, time or place of the sale and the certificate of Engineer-In-Charge as to the expense of any such removal and the amount of the proceeds and the expenses of any such sale shall be final and conclusive against the Contractor.

GC-23 COMPENSATION FOR ALTERATION IN OR RESTRICTION IN WORK

If at any time from the commencement of the work, the owner shall for any reasons whatsoever not require the whole work or part thereof as specified in the e-Tender to be carried out, the Engineer-In-Charge shall give notice in writing of the fact to the Contractor, who shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of full amount of the work not having been carried out. He also shall not have any claim for compensation by reasons of any alterations having been made in original specifications, drawings, designs and instructions which shall involve any curtailment of the work as originally contemplated.

When the Contractor is a partnership firm, the prior approval in writing of the owner shall be obtained before any change is made in the Constitution of the firm. Where the Contractor is an individual or a Hindu Undivided Family or business concern, such approval as aforesaid shall, likewise be obtained before Contractor enters into an agreement with other parties where under, the reconstituted firm would have the right to carry out the work hereby undertaken by the Contractor. In either case, if prior approval as aforesaid is not obtained, the contract shall be deemed to have been allotted contravention of subletting clause hereof and the same action may be taken and the same consequence shall ensure as provided in the subletting clause.

GC-24 IN THE EVENT OF DEATH OF THE CONTRACTOR :

Without prejudice to any of the rights or remedies under the contract, if the Contractor dies, the owner shall have the option of terminating the contract without compensation to the Contractor.

GC-25 MEMBERS OF THE OWNER NOT INDIVIDUALLY LIABLE :

No official or employee of the owner shall in any way be personally bound or liable for the acts or obligation of the owner under the contract, or answerable for any default or omission in the observance or performance of any acts, matters or things, which are herein, contained.

GC-26 OWNER NOT BOUND BY PERSONAL REPRESENTATIONS :

The Contractor shall not be entitled to any increase on the schedule of rates or any other rights or claims whatsoever by reason of representation, promise or guarantees given or alleged to have been given to him by any person.

GC-27 CONTRACTOR'S OFFICE AT SITE :

The Contractor shall provide and maintain an office at the site for the accommodation of his agent and staff and such office shall remain open at all reasonable hours to receive information, notices or other communications.

GC-28 CONTRACTOR'S SUBORDINATE STAFF AND THEIR CONDUCT :

1. The Contractor on award of the work shall name and depute a qualified Engineer having experience of carrying out work of similar nature, whom equipments, materials, if any, shall be issued and instructions for work given. the Contractor shall also provide to the satisfaction of Engineer-In-Charge sufficient and qualified staff, competent sub-agents, foreman and loading hands including those specially qualified by previous experience to supervise the type of works comprised in the contract in such manner as will ensure work of the best quality and expeditious working. If, in the opinion of the Engineer-In-Charge additional properly qualified supervision staff is considered necessary, it shall be employed by the Contractor, without additional charge on account thereof. The Contractor shall ensure to the satisfaction of the Engineer-In-Charge that sub-contractors, if any, shall provide competent and efficient supervision over the work entrusted to them.
2. If and whenever any of the Contractor's or sub-contractor's agents, sub- agents, assistants, foreman or other employees shall, in the opinion of the Engineer-In-Charge, be guilty of any misconduct or be incompetent or insufficiently qualified or negligent in the performance of their duties or that in the opinion of the owner or Engineer-In-Charge, it is undesirable for administrative or any other reason for person or persons to be employed in the works, the Contractor if so directed by the Engineer-In-Charge, shall at once remove such person or persons from employment thereon. Any person or persons so removed shall not again be re-employed in connection with the works without the written permission of the Engineer-In-Charge. Any person, so removed from the works shall be immediately replaced at the expense of the Contractor by a qualified and competent substitute. Should the Contractor be required to repatriate any person removed from the works he shall do so after approval of Engineer-In-Charge and shall bear all costs in connection therewith.
3. The Contractor shall be responsible for the proper behavior of all the staff, foreman, workmen and others and shall exercise proper control over them and in particular and without prejudice to the said generality, the Contractor shall be bound to prohibit and prevent any employee from trespassing or acting in any way detrimental or prejudicial to the interest of the community or of the properties or occupiers of land and properties in the neighborhood and in the event of such employees so trespassing, the Contractor shall be responsible therefore and relieve the owner of all consequent claims, actions for damages or injury or any other ground whatsoever. The decision of the Engineer-In-Charge upon any matter arising under this claim shall be final.
4. If and when required by the owner, the Contractor's personnel entering upon

the owner's premises shall be properly identified by badges of a type acceptable to the owner which must be worn at all times on owner's premises.

GC-29 TERMINATION OF SUB-CONTRACT BY OWNER : (N.A.)

If any sub-contractor engaged upon the works at the site execute any work which in the opinion of Engineer-In-Charge is not accordance with the contract documents, the owner may by written notice to the Contractor request him to terminate such sub-contract and the Contractor upon the receipt of such notice shall terminate such sub-contracts and the latter shall forthwith leave the works, failing which, the owner shall have the right to remove such sub-contractors from the site.

No action taken by the owner under the above clause shall relieve the Contractor of his liabilities under the contract or give rise to any right to compensation, extension of time or otherwise.

GC-30 POWER OF ENTRY :

If the Contractor shall not commence the work in the manner previously described in the contract documents or if he shall at any time, in the opinion of Engineer-In-Charge –

Fail to carry out works in conformity with the contract documents, or Fail to carry out the works in accordance with the time schedule, or Substantially suspend work or the works for a period of seven days without authority from Engineer-In-Charge, or Fail to carry out and execute the work to the satisfaction of the Engineer-In-Charge, or Fail to supply sufficient or suitable construction plant, temporary works, labour, materials or things, or Commit breach of any other provisions of the contract on his part to be performed or observed or persists in any of the above mentioned breaches of the contract for seven days after notice in writing shall have been given to the Contractor by the Engineer-In-Charge requiring such breach to be remedied, or Abandon the work, or During the continuance of the contract becomes bankrupt, make any arrangement or compromise with his creditors, or permit any execution to be levied or go into liquidation whether compulsory or voluntary not being merely a voluntary liquidation for the purpose of amalgamation or reconstruction then in any such case.

The owner shall have the power to enter upon the works and take possession thereof and of the materials, temporary works, constructional plant and stores therein and to revoke the Contractor's license to use the same and to complete the works by his agents, other Contractor or workmen, to relate the same upon any terms to such other person firm or Corporation as the owner in his absolute discretion may think proper to employ, and for the purpose aforesaid to use or authorize the use of any materials, temporary works, constructional plant, and stores as aforesaid with making payments or allowance to the Contractor for the said materials other than such as may be certified in writing by the Engineer-In-Charge to be reasonable and without making any payment or allowance to the Contractor for the use of said temporary works, constructional plant and stock or being liable for loss or damage thereto. If the owner shall be reason of his taking possession of the works or of the work being got completed by other Contractor incurred excess expenditure be deducted from any money which may be due for the work done by the Contractor under the contract and not paid for. Any deficiency shall forthwith be made good and paid to the owner by the Contractor and the owner shall have power to sell in such manner and for such price as he

may think fit all or any of the constructional plant, materials etc., consist constructed by or belonging to and to recoup and retain the said deficiency or any part thereof out of the proceeds of the sale.

GC-31 CONTRACTOR'S RESPONSIBILITY WITH THE OTHER CONTRACTOR AND AGENCIES :

Without repugnance to any other conditions, it shall be the responsibility of the Contractor executing the work, to work in close co-operation and co-ordination with other Contractors or their authorized representatives and the Contractor will put a joint scheme with the concurrence of other contractors or their authorized representatives showing the arrangements for carrying his portion of the work to the Engineer-In-Charge and get the approval. The Engineer-In-Charge before approving the joint scheme will call the parties concerned and modify the scheme if required. No claim will be entertained on account of the above. The Contractor shall conform in all respects with the provisions of any statutory regulations, ordinances or bylaws of any local or duly constituted authorities or public bodies which may be applicable from time to time to works or any temporary works. The Contractor s shall keep the owner indemnified against all penalties and liabilities of every kind arising out of non-adherence to such statutes, ordinance, laws, rules, regulations etc.

GC-32 OTHER AGENCIES AT SITE :

The Contractor shall have to execute the work in such place and condition where other agencies will also be engaged for other works, such as site grading, filling and leveling, electrical and mechanical engineering works etc. No claim shall be entertained for works being executed in the above circumstances.

GC-33 NOTICES :

Any notice under this contract may be served on the Contractor or his duly authorized representative at the job site or may be served by Registered Post direct to the official address of the Contractor. Proof of issue of any such notice could be conclusive of the Contractor having been duly informed of all contents therein.

GC-34 RIGHTS OF VARIOUS INTERESTS :

The owner reserves the right to distribute the work between more than one Contractor. Contractor shall co-operate and afford reasonable opportunity to other Contractor s for access to the works, for the carriage and storage of materials and execution of their works. Whenever the work being done by department of the owner or by other Contractor employed by the owner is contingent upon work covered by this contract, the respective rights of the various interests shall be determined by the Engineer-In-Charge to secure the completion of various portions of the work in general harmony.

GC-35 PRICE ADJUSTMENTS :

Prices are firm and fix and no adjustment in price shall be allowed and no price escalation will be allowed for the contract period or extended period, if any.

GC-36 TERMS OF PAYMENT :

The payment of bills shall be made progressively according to the rules and practices followed by the Corporation. The progressive payment unless otherwise provided in the contract agreement or subsequently agreed to by the parties shall be made generally monthly on submission of a bill by the Contractor in prescribed form of an amount according to the value of the work performed less the price of

materials supplied by owner aggregate of previous progressive payments and as required by Clause GC-37 (Retention of Money) herein. All such progressive payments shall be regarded as payments by way of advance against final payment. Payment for the work done by the Contractor will be based on the measurement at various stages of the work, in accordance with the condition at clause GC-81 (measurement of work in progress).

GC-37 RETENTION MONEY :

Pursuance to clause GC-36 (Terms of Payment) any on at money due to the Contractor for work done, Corporation will hold as Retention money five (5) percent of the value of work. The retention money will not normally be due for payment until the completion of the entire work and till such period the work has been finally accepted by the Corporation and a completion certificate issued by the Corporation in pursuant to Clause-GC 79 (Completion Certificate).

GC-38 PAYMENTS DUE FROM THE CONTRACTOR :

All costs, damages or expenses, for which under the contract, Contractor is liable to the Corporation, may be deducted by the Corporation from any money due or becoming due to the Contractor under the contract or from any other contract with the Corporation or may be recovered by action at law or otherwise from the Contractor.

GC-39 CONTINGENT FEE :

- i) The Contractor warrants that he has not employed a person to solicit or secure the contract upon any agreement for a commission, percentage, and brokerage contingent fee. Breach of this warranty shall give the Corporation the right to cancel the contract or to take any drastic measure as the Corporation may deem fit. The warranty does not apply to commissions payable by the Contractor to establish commercial or selling agent for the purpose of securing business.
- ii) No officer, employer or agent of the Corporation shall be admitted to any share or part of this contract or to any benefit that may rise there from.

GC-40 BREACH OF CONTRACT BY CONTRACTOR :

If the Contractor fails to perform the work under the contract with due diligence or shall refuse or neglect to comply with instructions given to him in writing by the Engineer-In-Charge in accordance with the contract, or shall contravene the provisions of the contract, the Corporation may give notice in writing to the Contractor to make good such failure, neglect, or contravention. Should the Contractor fail to comply with such written notice within 14 (fourteen) days of receipt, it shall be lawful for the Corporation, without prejudice to any other rights the Corporation may have under the contract, to terminate the contract for all or part of the works, forfeit the Security Deposit and make any other arrangements it shall deem necessary to complete the work outstanding under the contract at the time of termination and Black List / Debar / Terminate for the period of three years from the works of RMC. In this event, the performance Bond shall immediately become due and payable to the Corporation. The value of the work done on the date of termination and not paid for shall be kept as deposit for adjustment of excess expenditure incurred in getting the remaining work completed and the Corporation shall have free use of any works which the Contractor may have at the site at the time of termination of the contract.

GC-41 DEFAULT OF CONTRACTOR :

- i) The Corporation may upon written notice of default to the Contractor terminate the contract circumstances detailed as under :
 - a) If in the opinion of the Corporation, the Contractor fails to make completion of works within the time specified in the completion schedule or within the period for which extension has been granted by the Corporation to the Contractor.
 - b) If in the opinion of the Corporation, the Contractor fails to comply with any of the other provisions of this contract.
- ii) In the event, the Corporation terminates the contract in whole or in part as provided in Article GC-50 (Termination of the Contract) the Corporation reserves the right to purchase upon such terms and in such manner as it may be deem appropriate, plant similar to one which is not supplied by the Contractor and the Contractor will be liable to the Corporation for any additional costs for such similar plant and / or for liquidated damages for delay until such time as may be required for the final completion of works.
- iii) If this contract is terminated as provided in this paragraph GC-30 (Power of Entry) (1) the Corporation in addition to any other rights provided in this clause, may require the Contractor to transfer title and deliver to the Corporation.

Any completed works

Such partially completed information and contract rights as the Contractor has specifically produced or acquired for the performance of the contract so terminated.

- iv) In the event, the Corporation does not terminate the contract as provided in the paragraph GC-50 (Termination of Contract) the Contractor shall continue performance of the contract, in which case, he shall be liable to the Corporation for liquidated damages for delay until the works are completed and accepted.

GC-42 BANKRUPTCY :

If the Contractor shall become bankrupt or insolvent or has a receiving order made against him, or compound with his creditors, or being the Corporation commence to be wound up not being a member voluntary winding up for the purpose of amalgamation or reconstruction, or carry on its business under a receiver for the benefit of his creditors or any of them, the Corporation shall be at liberty to either (a) terminate the contract forthwith by giving notice in writing to the Contractor or to the receiver or liquidator or to any person or Organization in whom the contract may become vested and to act in the manner provided in Article GC-41 (Default of Contractor) as though the last mentioned notice had been the notice referred to in such article or (b) to give such receiver, liquidator or other persons in whom the contract may become vested the option of carrying out the contract subject to his providing a satisfactory guarantee for the due and faithful, performance of the contract up to an amount to be agreed. In the event that the Corporation terminates the contract in accordance with this article, the performance bond shall immediately become due and payable on demand to Corporation.

GC-43 OWNERSHIP :

Works hand over pursuant to the contract shall become the property of the Corporation from whichever is the earlier of the following times, namely;

- A) When the works are completed pursuant to the contract.
- B) When the contractor has been paid any sum to which he may become entitled in respect thereof pursuant to Clause GC-36 (Terms of Payment).

GC-44 DECLARATION AGAINST WAIVER :

The condemnation by the Corporation of any breach or breaches by the Contractor or an authorized sub-contractor of any of the stipulations and conditions contained in the contract, shall in no way prejudice or affect or be construed as a waiver of the Corporation's rights, powers and remedies under the contract in respect of any breach or breaches.

GC-45 LAWS GOVERNING THE CONTRACT :

This contract shall be construed according to and subject to the laws of India and the State of Gujarat and under the jurisdiction of the Courts of Gujarat at Rajkot.

GC-46 OVER PAYMENT AND UNDER PAYMENT :

Whenever any claim for the payment of a sum to the Corporation arises out of or under this contract against the Contractor, the same may be deducted by the Corporation from any sum then due or which at any time thereafter may become due to the Contractor under this contract and failing that under any other contract with the Corporation (which may be available with the Corporation), or from his retention money or he shall pay the claim on demand. The Corporation reserves the right to carry out post payment audit and technical examinations of the final bill including all supporting vouchers, abstracts etc. The Corporation further reserves the right to enforce recovery of any payment when detected, notwithstanding the fact that the amount of the final bill may be included by one of the parties as an item of dispute before an Arbitrator, appointed under Article GC-49 (Arbitration) of this contract and notwithstanding the fact that the amount of the final bill figures in the arbitration award. If as a result of such audit and technical examinations any over payment is discovered in respect of any work done by the Contractor or alleged to have been done by him under the contract, it shall be recovered by the Corporation from the Contractor as prescribed above. If any under payment is discovered by the Corporation, the amount due to the Contractor under this contract, may be adjusted against any amount then due or which may at any time thereafter become due before payment is made to the Contractor.

GC-47 SETTLEMENT OF DISPUTES :

Except as otherwise specifically provided in the contract, all disputes concerning questions of fact arising under the contract shall be decided by the Engineer-In-Charge subject to a written appeal by the Contractor to the Engineer-In-Charge and those decisions shall be final and binding on the parties hereto. Any disputes or differences including those considered as such by only one of the parties arising out of or in connection with this contract shall be to the extent possible settled amicably between the parties. If amicable settlement cannot be reached then all disputed issues shall be settled as provided in Article GC-48 (Disputes or differences to be referred to) and Article No.GC-49 (Arbitration).

GC-48 DISPUTES OF DIFFERENCES TO BE REFERRED TO :

If at any time, any question, disputes or differences of any kind whatsoever shall arise between the Engineer-In-Charge and the contractor upon or in relation to or in connection with this contract either party may forthwith give to the other, notice in writing of the existence of such question, dispute or difference as to any decision, opinion, instruction, direction, certificate or evaluation of the Engineer-In-Charge.

GC-49 DELETED:**GC-50 TERMINATION OF THE CONTRACT :**

- i) If the Contractor finds it impracticable to continue operation owing to force majeure reasons or for any reasons beyond his control and/or the Corporation find it impossible to continue operation, then prompt notification in writing shall be given by the party affected to the other.
- ii) If the delay or difficulties so caused cannot be expected to cease or become unavoidable or if operations cannot be resumed within two (2) months then either party shall have the right to terminate the contract upon ten (10) days written notice to the other. In the event of such termination of the contract, payment to the Contractor will be made as follows :
 - a) The Contractor shall be paid for all works approved by the Engineer-In-Charge and for any other legitimate expenses due to him.
 - b) If the Corporation terminates the contract owing to Force Majeure or due to any cause beyond its control, the Contractor shall additionally be paid for any work done during the said two (2) months period including any financial commitment made for the proper performance of the contract and which are not reasonably defrayed by payments under (a) above.
 - c) The Corporation shall also release all bonds and guarantees at its disposal except in cases where the total amount of payment made to the Contractor exceeds the final amount due to him in which case the Contractor shall refund the excess amount within thirty (30) days after the termination and the Corporation thereafter shall release all bonds and guarantees. Should the Contractor fail to refund the amounts received in excess within the said period such amounts shall be deducted from the bonds or guarantees provided.
- iii) On termination of the contract for any cause the Contractor shall see the orderly suspension and termination of operations, with due consideration to the interests of the Corporation with respect to completion safeguarding of storing materials procured for the performance of the contract and the salvage and resale thereof.

GC-51 SPECIAL RISKS:

If during the contract, there shall be an outbreak of war (whether war is declared or not), major epidemic, earthquake or similar occurrence in any part of the world beyond the control of either party to the contract which financially or otherwise materially affects the execution of the contract, the Contractor shall unless and until, the contract is terminated under the provisions of this article use his best endeavors to complete the execution of the contract, provided

always that the Corporation shall be entitled at any time after the onset of such special risks, to terminate the contract by giving written notice to the contractor and upon such notice being given this contract shall terminate but without prejudice to the rights of either party in respect of any antecedent breach thereof.

The Contractor shall not be liable for payment of compensation for delay or for failure to perform the contract for reasons of Force Majeure such as acts of public enemy, acts of Government, fires, floods, cyclones, epidemics, quarantine restrictions, lockouts, strikes, freight embargoes and provided that the Contractor shall within 10 (ten) days from the beginning of such delay notify the Engineer-In-Charge in writing, of the cause of delay, the Corporation shall verify the facts and grant such extension as the facts justify.

GC-52 CHANGE IN CONSTITUTION :

Where the Contractor is a partnership firm, the prior approval in writing of the owner shall be obtained before any change is made in the constitution of the firm. Where the Contractor is an individual or undivided family business concern such approval as aforesaid shall likewise be obtained before the Contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the Contractor. If prior approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of contract.

GC-53 SUB-CONTRACTUAL RELATIONS (N.A.)

All works performed for the contract by a sub-contractor shall be pursuant to an appropriate agreement between the Contractor and the sub-contractor, which shall contain provision to –

- a) Protect and preserve the rights of the Corporation and the Engineer-In-Charge with respect to the works to be performed under the sub-contracting party will not prejudice such rights.
- b) Require that such work be performed in accordance with the requirements of contract documents.
- c) Require under such contract to which the contractor is a party, the submission to the Contractor of application for payment and claims for additional costs, extension of time, damages for delay or otherwise with respect to the sub-contracted portions of the work in sufficient time, that the Contractor may apply for payment comply in accordance with the contract documents for like claims by the Contractor upon the Corporation.
- d) Waive all rights the contracting parties may have against one another for damages caused by fire or other perils covered by the property insurance except such rights as they may have to the proceeds of such insurance held by the Corporation as trustee and,
- e) Obligate each sub-contractor specifically to consent to the provisions of this Article.

GC-54 PATENTS AND ROYALTIES :

1. Contractor, if licensed under any patent covering equipment, machinery, materials or composition of matter to be used or supplied or methods and process to be practiced or employed in the performance of this contract agrees to pay all royalties and license fees, which may be due with respect

thereto. If any equipment, machinery, materials, composition matters, to be used or supplied or methods practiced or employed in the performance of this contract, is covered by a patent under which Contractor is not licensed, then the Contractor before supplying / using the equipment, machinery, materials, compositions, methods of process shall obtain such license and pay such royalties and license fees as may be necessary for performance of this contract. In the event Contractor fails to pay such royalty or to obtain any such license, any suit for infringement of such patents which is brought against the Contractor or the owner as a result of such failure will be defended by the Contractor at his own expenses and the Contractor will pay any damages and costs awarded in such suit. The Contractor shall promptly notify the owner if the Contractor has acquired knowledge of any plant under which a suit for infringement could be reasonably brought because of the use by the owner of any equipment machinery, materials, process methods to be supplied in hereunder. Contractor agrees to and does hereby grant to owner together with the right to extend the same to any of the subsidiaries of the owner an irrevocable royalty fee license to use in any Country, any invention made by the Contractor or his employees in or as a result of the performance of work under contract.

2. With respect to any sub-contract entered into by Contractor pursuant to the provisions of the relevant clause hereof, the Contractor shall obtain from the sub-contractor an understanding to provide the owner with the same patent protection that contracts is required to provide under the provisions of the clause.
3. The Contractor shall indemnify and save harmless the owner from any loss on account of claims against owner for the contributory infringement of patent rights arising out of and based upon the claim that the use by the Corporation of the process included in the design prepared by the Contractor and used in the operation of the plant infringes on any patent rights.

GC-55 LIEN :

If, at any time, there should be evidence of any lien or claim for which owner might have become liable and which is chargeable to the Contractor, the owner shall have the right to retain out of any payment then due or thereafter to become due an amount sufficient to completely indemnify the owner against such lien or claim or if such lien or claim be valid the owner may pay and discharge the same and deduct the amount as paid from any money which may be due or become due and payable to the Contractor. If any lien or claims remaining unsettled after all payments are made, the Contractor shall refund or pay to the owner all money that the latter may be compelled to pay in discharging such lien or claim including all costs and reasonable expenses.

GC-56 EXECUTION OF WORK :

The whole work shall be carried out in strict conformity with the provisions of the contract document, detailed drawings, specifications and the instructions of the Engineer-In-Charge from time to time. The Contractor shall ensure that the whole work is executed in the most substantial, and proper manner with best workmanship using materials of best quality in strict accordance with the specifications to the entire satisfaction of the Engineer-In-Charge.

GC-57 WORK IN MONSOON :

When the work continues in monsoon if required, the Contractor shall maintain minimum labour force required for the work and plan and execute the construction and erection work according to the prescribed schedule. No extra rate will be considered for such work in monsoon. During monsoon and entire construction period, the Contractor shall keep the site free from water at his own cost. However, monsoon period from 1st July to 30th September will be excluded from time limit.

GC-58 WORK ON SUNDAYS AND HOLIDAYS :

No work except curing shall be carried out on Sunday and holidays. However, if the exigencies of the work need continuation of work on Sundays and Holidays, written permission of the Engineer-In-Charge shall be obtained in advance.

GC-59 GENERAL CONDITIONS FOR CONSTRUCTION WORK :

Working hours shall be eight every day. The over time work in two shifts could be carried out with the written permission of the Engineer-In-Charge but no compensation shall be paid for the same. The rate quoted shall include this. The Contractor shall plan his work in such a way that his labourers do not remain idle. The owner will not be responsible for idle labour of the Contractor. The Contractor shall submit to the owner progress report every week. The details and proforma of the report will be as per mutual agreement.

GC-60 DRAWINGS TO BE SUPPLIED BY THE OWNER : (N.A.)

The drawings attached with the e-Tender documents shall be for general guidance of the Contractor to enable him to visualize the type of work contemplated and scope of work involved. Detail working drawings according to which the work is to be done shall be prepared by the Contractor for executing the work.

GC-61 DRAWINGS TO BE SUPPLIED BY THE CONTRACTOR:

Where drawings, data are to be furnished by the Contractor they shall be as enumerated in special conditions of contract and shall be furnished within the specified time. Where approval of drawings has been specified it shall be Contractor's responsibility to have these drawings got approved before any work is taken up with regard to the same. Any changes becoming necessary in those drawings during the execution of the work shall have to be carried out by the Contractor at no extra cost. All final drawings shall bear the certification stamp as indicated below duly signed by both the Contractor and Engineer-In-Charge.

Certified true for.....Project Agreement

No..... Signed

.....

Contractor

Engineer-In-Charge

Drawings will be approved within three (3 weeks of the receipt of the same by the Engineer-In-Charge.

GC-62 SETTING OUT WORK :

The Contractor shall set out the work on the site handed over by the Engineer- In-Charge and shall be responsible for the correctness of the same. The work shall be carried out to the entire satisfaction of Engineer-In-Charge. The

approval thereof or partaking by Engineer-In-Charge or setting out work shall not relieve Contractor of any of his responsibilities. The Contractor shall provide at his own cost all necessary level posts, pegs, bamboos, flags, ranging rods, strings and other materials and labourers required for proper setting out of the work. The Contractor shall provide fix and be responsible for the maintenance of all stakes, templates, level markets, profiles and similar other things and shall take all necessary precautions to prevent their removal or disturbance and shall be responsible for the consequences for such removal or disturbance. The Contractor shall also be responsible for the maintenance of all existing survey marks, boundary marks, and distance marks and centerline marks either existing or face lines and cross lines shall be marked by small masonry pillars. Each pillar shall have distance mark at the center for setting up the theodolite. The work shall not be started unless the setting out is choked and approved by Engineer-In-Charge in writing but such approval shall not relieve the Contractor of his responsibilities about the correctness of setting out. The Contractor shall provide all materials, labour and other facilities necessary for checking at his own cost. Pillars bearing geodetic marks on site shall be protected by the Contractor. On completion of the work, the Contractor shall submit the geodetic documents according to which the work has been carried out.

GC-63 RESPONSIBILITIES OF CONTRACTOR FOR CORRECTNESS OF THE WORK :

The Contractor shall be entirely and exclusively responsible for the correctness of every part of the work and shall rectify completely any errors therein at his own cost when so instructed by Engineer-In-Charge. If any error has crept in the work due to non-observance of this clause, the Contractor will be responsible for the error and bear the cost of corrective work.

1. Materials to be supplied by the Contractor:

Contractor shall procure and provide all the material required for the execution and maintenance of work including M S rods; all tools, tackles, construction plant and equipment except, the materials to be supplied by the owner detailed in the contract documents. Owner, shall make recommendations for procurement of materials to the respective authorities if desired by the Contractor but assumes no responsibility of any nature. Owner shall insist for procurement of materials with ISI marks supplied by reputed firms of the DGS & D list.

2. If however, the Engineer-In-Charge feels that the work is likely to be delayed due to Contractor's inability to procure materials, the Engineer-In-Charge shall have the right to procure materials, from the market and the Contractor will accept these materials at the rates decided by Engineer-In-Charge.

GC-64 MATERIALS TO BE SUPPLIED BY THE OWNER :

1. If the contract provided certain materials or stores to be supplied by the owner, such materials and stores transported by the Contractor at his cost from owner's stores or Railway Station. The cost from Contractor for the value of materials supplied by the owner will be recovered from the R.A.Bill on the basis of actual consumption of materials in the work covered and for which R A Bill has been prepared. After completion of the work, the Contractor has to account for the full quantity of materials supplied to him.

2. The value of store materials supplied by owner to the Contractor shall be

charged at rates shown in the contract document and in case any other material not listed in the schedule of materials is supplied by the owner, the same shall be charged at cost price including carting and other expenses incurred in procuring the same. All materials so supplied shall remain the property of the owner and shall not be removed from the site on any account. Any material remaining unused at the time of completion of work or termination of contracts shall be returned to owner's store or any other place as directed by the Engineer-In-Charge in perfectly good condition at Contractor's cost. When materials are supplied free of cost for use in work and surplus and unaccounted balance thereof are not returned to the owner, recovery in respect of such balance will be effected at double the applicable issue rate of the material or the market rates whichever is higher.

GC-65 CONDITIONS OF ISSUE OF MATERIALS BY THE OWNER: (N.A.)

The materials specified to be issued by the owner to the Contractor shall be issued by the owner at his store and all expenses for it carting site shall be borne by the Contractor will be issued during working hours and as per rules of owner from time to time.

Contractor shall bear all expenses for storage and safe custody at site of materials issued to him before use in work.

Material shall be issued by the owner in standard / non-standard sizes as obtained from manufacturer.

Contractor shall construct suitable godowns at site for storing the materials to protect the same from damage due to rain, dampness, fire, theft etc.

The Contractor should take the delivery of the materials issued by the owner after satisfying himself that they are in good condition. Once the materials are issued, it will be the responsibility of the Contractor to keep them in good condition and in safe custody. If the materials get damaged or if they are stolen, it shall be the responsibility of the Contractor to replace them at his cost according to the instructions of the Engineer-In-Charge.

For delay in supply or for non-supply of materials to be supplied by the owner, on account of natural calamities, act of enemies, other difficulties beyond the control of the owner, the owner carries no responsibilities. In no case the Contractor shall be entitled to claim any compensation for loss suffered by him on this account.

None of the materials issued to the contractor, shall be used by the Contractor for manufacturing items which can be obtained from the manufacturer's. The materials issued by the owner shall be used for the work only and no other purpose.

Contractor shall be required to execute indemnity bond in the prescribed form for the safe custody and account of materials issued by the owner.

Contractor shall furnish sufficiently in advance a statement of his requirements of quantities of materials to be supplied by the owner and the time when the same will be required for the work, so as to enable Engineer-In-Charge to make

arrangements to procure and supply the materials.

A daily account of materials issued by the owner shall be maintained by the contractor showing receipt, consumption and balance on hand in the form laid down by Engineer-In-Charge with all connected paper and shall be always available for inspection in the site office.

Contractor shall see that only the required quantities of materials are got issued and no more. The Contractor shall be responsible to return the surplus materials at owner's store at his own cost.

GC-66 MATERIALS PROCURED WITH ASSISTANCE OF THE OWNER :

Notwithstanding anything contained to the contrary in any of the clauses of this contract, where any materials for the execution of the contract are procured with the assistance of the owner either by issue from owner's stock or purchase made under orders or permits or licenses issued materials as trustees for owner, and use such materials not disposed them off without the permission of owner and unserviceable materials that may be left with him after completion of the contract or at its termination for any reason whatsoever on his being paid or credited such price as Engineer-In-Charge shall determine having due regard to the conditions of the materials. The price allowed to Contractor shall not exceed the amount charged to him excluding the storage of breach of the aforesaid condition, the Contractor shall in terms of license or permits and/or for criminal breach of trust be liable to compensate owner at double the rate or any higher rates. In the event of these materials at that time having higher rate or not being available in the market then any other rate to be determined by the Engineer-In-Charge at his decision shall be final and conclusive.

GC-67 MATERIALS OBTAINED FROM DISMANTLING :

If the Contractor, in the course of execution of work, is called upon to dismantle any part of work for reasons other than on account of bad or imperfect work, the materials obtained from dismantling will be property of the owner and will be disposed off as per instructions of Engineer-In-Charge in the best interest of the owner.

GC-68 ARTICLE OF VALUE OF TREASURE FOUND DURING CONSTRUCTION:

All gold, silver and other minerals of any description and all precious stones, coins, treasures, relics, antiques and other similar things which shall be found in, under or upon site shall be the property of the owner and the Contractor shall properly preserve the same to the satisfaction of the Engineer-In-Charge and shall hand over the same to the owner.

GC-69 DISCREPANCIES BETWEEN INSTRUCTIONS:

If there is any discrepancy between various stipulations of the contract documents or instructions to the Contractor or his authorized representative or if any doubt arises as to the meaning of such stipulation or instructions, the Contractor shall immediately refer in writing to the Engineer-In-Charge whose decision shall be final and conclusive and no claim for losses caused by such discrepancy shall in any event be admissible.

GC-70 ALTERATIONS IN SPECIFICATIONS & DESIGNS & EXTRA WORK :

The Architect / Engineer-In-Charge shall have power to make any alterations in,

omission from, addition to substitution for, the schedule of rates, the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of work and the Contractor shall be bound to carry out such altered / extra / new items of work in accordance with any instructions which may be given to him in writing signed by Engineer-In- Charge and such alteration omissions, additions or substitutions, shall not invalidate contract and any altered, additional or substituted work shall be carried out by the Contractor on the same conditions of contract. The time of completion may be extended by Architect as may be considered just and reasonable by him. The rates for such additional, altered or substitute work shall be worked out as under :

- a) If the rates for additional, altered or substitutes work are specified in the contract for work, the Contractor is bound to carry out such work at the same rates as specified in the contract.
- b) If the rates for additional, altered or substituted work are not specifically provided in the contract for the work, the rates will be derived from the rates of similar items of work in the contract work. The opinion of Engineer-In-Charge as to whether the rates can be reasonably so derived the items of contract will be final and binding to the Contractors.
- c) If the rates of altered, additional or substitute work cannot be determined as specified in (a) or (b) above, the rate shall be paid as per S.O.R. of RMC and if not available in RMC SOR then it will be paid according to the SOR of R&B / GWSSB. In such case, if contractor's premium quoted in the tender is below, the rate will be paid as per the premium quoted whereas if the premium quoted in the tender is above then it will paid as per the rates of S.O.R. of Rajkot Municipal Corporation and if not available in RMC SOR then it will be paid according to the SOR of R&B / GWSSB.
- d) If the rates of altered, additional or substitute work cannot be determined as specified in (a) or (b) or (c) above, the Contractor shall within seven days of the receipt of order to carry out the work inform the Architect / Engineer-In-Charge of the rate which he intends to charge for such work supported by rate analysis and the Architect / Engineer-In-Charge will determine the rate on the basis of prevailing market rates of materials, labour cost at schedule of labour plus 15% there on as Contractor's supervision overheads and profit. The opinion of Architect / Engineer-In-Charge as to the market rates of materials and the quantity of labour involved per unit of measurement will be final and binding on Contractor.

But under no circumstances, the Contractor suspends work or the plea of non settlement of items falling under this clause.

GC-71 ACTION WHEN NO SPECIFICAITONS ARE ISSUED :

In case of any class of work for which no specifications is supplied by the owner in the e-Tender documents, such work shall be carried out in accordance with relevant latest ISS and if ISS do not cover the same, the work shall be carried out as per General Technical Specification for building work; and if not covered in then it is to be with standard Engineering Practice subject to the approval of Engineer-In-Charge.

GC-72 ABNORMAL RATES :

Contractor is expected to quote rate for each item after careful analysis of cost involved for the performance of the completed item considering all specifications and conditions of contract.

GC-73 ASSISTANCE TO ENGINEER-IN-CHARGE:

Contractor shall make available to Engineer-In-Charge free of cost all necessary instruments and assistance in checking of any work made by the Contractor setting out for taking measurement of work etc.

GC-74 TESTS FOR QUALITY OF WORK :

1. All workmanship shall be of the best kind described in the contract documents and in accordance with the instructions of Engineer-In-Charge and shall be subjected from time to time to such tests at Contractor's cost as the Engineer-In-Charge may direct at the place of manufacture of fabrication or on the site or at any such place. Contractor shall provide assistance, instruments, labour and materials as are normally required for examining, measuring and testing of any work of workmanship as may be selected and required by Engineer-In-Charge.
2. All tests necessary in connection with the execution of work as decided by Engineer-In-Charge shall be carried out at an approved laboratory at Contractor's cost.
3. Contractor shall furnish the Engineer-In-Charge for approval when requested or if required by the specification, adequate samples of all materials and finished goods to be used in work sufficiently in advance to permit tests and examination thereof. All materials furnished and finished goods applied in work shall be exactly as per the approved samples.

GC-75 ACTION AND COMPENSATION IN CASE OF BAD WORKMANSHIP :

If it shall appear to the Engineer-In-Charge that any work has been executed with materials of inferior description, or quality or are unsound or with unsound, imperfect or unskilled workmanship or otherwise not in accordance with the contract, the Contractor shall, on demand in writing from Engineer-In-Charge or his authorized representative specifying the work, materials or articles complained of, notwithstanding that the same may have been inadvertently passed, certified and paid for, forthwith rectify or remove and reconstruct the work, so specified. In the event of failure to do so within a period to be specified by the Engineer-In-Charge in his aforesaid demand, Contractor shall be liable to pay compensation at the rate of half a percent of the estimated cost of work for every work limited to a maximum of ten (10%) percent of the value of work while his failure to do so continues and in the case of any such failure, the Engineer-In-Charge may on expiry of the notice period rectify and remove and re-execute the work or remove and replace with others at the risk and cost of the Contractor. The decision of the Engineer-In-Charge as to any question arising under this clause shall be final and conclusive.

GC-76 SUSPENSION WORK:

Contractor shall, if ordered in writing by Engineer-In-Charge or his representative temporarily suspended the work or any part thereof for such time (not exceeding one month) as ordered and shall not after receiving such written notice proceed with the work until he shall have received a written order to proceed therewith. The Contractor shall not be entitled to claim compensation for any loss or damage sustained by him by reason of temporary suspension of work as aforesaid. An extension of time for completion of work will be granted to the Contractor corresponding to the delay caused by such suspension of work if he applies for the same provided the suspension was not consequent upon any default or failure on the part of the Contractor.

GC-77 OWNER MAY DO PART OF THE WORK :

When the Contractor fails to comply with any instructions given in accordance with the provisions of this contract, the owner has the right to carry out such parts of work as the owner may designate whether by purchasing materials and engaging labour or by the agency of another Contractor. In such case the owner shall deduct from the amount which otherwise might become due to Contractor, the cost of such work and materials with then (10) percent added to cover all departmental charges and should the total amount thereof exceed the amount due to contract, Contractor shall pay the difference to owner.

GC-78 POSSESSION PRIOR TO COMPLETION :

The Engineer-In-Charge shall have the right to take possession of or to use any completed or partly completed work or part of work. Such possession or use shall not be deemed to be an acceptance of any work completed in accordance with the contract. If such prior possession or use by Engineer-In-Charge delays the process of work, equitable adjustment in the time of completion will be made and the contract shall be deemed to be modified accordingly.

GC-79 COMPLETION CERTIFICATE :

As soon as the work has been completed in accordance with contract (except in minor respects that do not effect their use for the purpose for which they are intended and except for maintenance thereof) as per General Conditions of Contract the Engineer-In-Charge shall issue a certificate (hereinafter called completion certificate) in which shall certify the date on which work has been completed and has passed the said tests and owner shall be deemed to have taken over work on the date so certified. If work has been divided in various groups in contract, owner shall be entitled to take over any group or groups before the other or others and there upon the Engineer-In-Charge will issue a completion certificate, which will, however, be for such group or groups so taken over.

In order that Contractor could get a completion certificate, he shall make good will all speed any defect arising from the defective materials supplied by Contractor of workmanship or any act or omission of Contractor that may have been discovered or developed after the work or groups of works has been taken over. The period allowed for carrying out such work will be normally, one month. If any defect be not remedied within the time specified, owner may proceed to do work at Contractor's (Agency, or Firm) risk and expenses and deduct from the final bill such amount as may be decided by owner. If by reason of any default on the part of the Contractor, a completion certificate has not been issued in respect of every portion of work within one month after the date fixed by contract for completion of work, owner shall be at liberty to use work or any portion thereof in

respect of which a completion certificate has been issued, provided that work or the portion thereof so used as aforesaid shall be afforded reasonable opportunity for completion of that work or the portion thereof so used as aforesaid shall be afforded reasonable opportunity for completion of that work for the issue of completion certificate.

GC-80 SCHEDULE OF RATES :

1. The rates quoted by the Contractor shall remain firm till the completion of the work and shall not be subject to escalation. Schedule of rates shall be deemed to include and cover all costs, expenses and liabilities of every description and risks or every kind to be taken in executing, completing and handing over the work to owner by Contractor. The contractor shall be deemed to have known the nature, scope, magnitude and the extent of work and materials required though contract documents may not fully and precisely furnish them. He shall make such provision in the Schedule of Rates as he may consider necessary to cover the cost of such items of work and materials as may be reasonable and necessary to complete the work. The opinion of Engineer-In-Charge as to the item of work which are necessary and reasonable for completion of the work shall be final and binding on Contractor although the same may be not shown on drawings or described specifically in contract documents.
2. The Schedule of Rates shall be deemed to include and cover the cost of all constructional plant, temporary work, materials, labour and all other matters in connection with each item in Schedule of Rates and the execution of work or any portion thereof finished complete in every respect and maintained as shown or described in the contract document or as may be ordered in writing during the continuance of the contract.
3. The Schedule of Rates shall be deemed to include and cover the cost of all royalties and fees for the articles and processes, protected by letters patent or otherwise incorporated in or used in connection with work, also all royalties, rents and other payments in connection with obtaining material of whatsoever kind for work and shall include an indemnity to owner which Contractor hereby gives against all action, proceedings, claims, damages, costs and expenses arising from the incorporation in or use on the works of any such articles, processes or materials. Other Municipal or local Board charges if levied on material, equipment or machineries to be brought to site for use on work shall be borne by the Contractor.
4. No exemption or reduction of custom duties, excise duties, sales tax or any other taxes or charges of the Central or State Government or of any Local Body whatsoever will be granted or obtained and all such expenses shall be deemed to have been included in and covered by Schedule of Rates. Contractor shall also obtain and pay for all permits or other privileges necessary to complete the work.
5. The Schedule of Rates shall be deemed to include and cover risk on account of delay and interference with Contractor's conduct of work which may occur from any cause including orders of owner in the exercise of his powers and on account of extension of time granted due to various reasons.

6. For work under unit rate basis, no alteration will be allowed in the Schedule of Rates by reasons of work or any part of them being modified, altered, extended, diminished or omitted.

GC-81 PROCEDURE FOR MEASUREMENT OF WORK IN PROGRESS:

1. All measurements shall be in metric system. All the work in progress will be jointly measured by the representative of Engineer-In-Charge and Contractor's authorized agent. Such measurements will be got recorded in the Measurement Book by the Engineer-In-Charge or his authorized representative and signed by the Contractor or his authorized agent in token of acceptance. If the Contractor or his authorized agent fails to be present whenever required by the Engineer-In-Charge for taking measures for every reasons whatsoever, the measurement will be taken by the Engineer-In-Charge or his authorized representative notwithstanding the absence of Contractor and these measurements will be deemed to be correct and binding on the Contractor.
2. Contractor will submit a bill in approved proforma in quadruplicate to the Engineer-In-Charge of the work giving abstract and detailed measurements of various items executed during a month as mutually agreed. The Engineer-In-Charge shall verify the bill and the claim, as far as admissible, adjusted if possible, within 10 days of presentation of the bills.

GC-82 RUNNING ACCOUNT PAYMENTS TO BE REGARDED AS ADVANCES :

1. All running account payments shall be regarded as payments by way of advance against the final payment only and not as payment for work actually done and completed and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or rejected or to be considered as an admission of the due performance of contract or any part thereof.
2. Five (5) percent of the gross R A Bill amount shall be retained from each bill as retention amount and the same will be paid with the final bill.

GC-83 NOTICE FOR CLAIM FOR ADDITIONAL PAYMENT :

If the Contractor considers that he is entitled to extra payment or compensation or any claim whatsoever in respect of work, he shall forthwith give notice in writing to the Engineer-In-Charge about his extra payment and / or compensation. Such notice shall be given to the Engineer-In-Charge within ten (10) days from the happening of any event upon which Contractor basis such claims and such notice shall contain full particulars of the nature of such claim with full details and amount claimed. Failure on the part of the Contractor to put forward any claim with the necessary particulars as above, within the time above specified shall be an absolute waiver thereof. No omission by owner to reject any such claim and no delay in dealing therewith shall waiver by owner or any rights in respect thereof.

GC-84 PAYMENT OF CONTRACTOR'S BILL :

1. The price to be paid by the owner to Contractor for the work to be done and for the performance of all the obligations undertaken by the Contractor under contract shall be based on the contract price and payment to be made accordingly for the work actually executed and approved by the Engineer-In-Charge.

2. Contractor on submitting the bill thereof will be entitled to receive a monthly payment proportionate to the part thereof, approved and passed by Engineer-In- Charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against contractor. This payment shall be made after necessary deductions as stipulated elsewhere in the contract documents for materials, security deposit etc. The payment shall be released to the Contractor within two (2) months of submission of the bill duly pre-occupied on proper revenue stamp. Payment due to Contractor shall be made by the owner through ECS mode in Indian currency in the account of contractor. Owner shall not be responsible if the account number is mislaid or misappropriated by unauthorized persons.

GC-85 FINAL BILL :

The final bill shall be submitted by Contractor within one (1) month of the date of physical completion of work, otherwise the Engineer-In-Charge's certificate of the measurement and of total amount payable for work shall be final and binding on all parties.

GC-86 RECEIPT FOR PAYMENT :

Receipt for payment made on account of work when executed by a firm must be signed by a person holding Power of Attorney in this respect on behalf of Contractor except when described in the e-Tender as a limited company in which case the receipt must be signed in the name of the Company by one of its principal officers or by some person having authority to give effectual receipt for the Company.

GC-87 COMPLETION CERTIFICATE :

1. When the Contractor fulfils his obligation as per terms of contract, he shall be eligible to apply for Completion Certificate. Contractor may apply for separate Completion Certificate in respect of each such portion of work by submitting the completion documents along with such application for Completion Certificate.

The Engineer-In-Charge shall normally issue to Contractor the Completion Certificate within one (1) month after receiving an application thereof from Contractor after verifying, from the completion documents and satisfying himself that work has been completed in accordance with and as set out in the construction and erection drawings and the contract documents. Contractor after obtaining the Completion Certificate is eligible to present the final bill for work executed by him under the terms of contract.

2. Within one month of completion of work in all respects Contractor shall be furnished with a certificate by the Engineer-In-Charge of such completion but no certificate shall be given nor shall work be deemed to have been executed until all (i) scaffolding, surplus materials and rubbish is cleaned off site completely, (ii) until work shall have been measured by the Engineer-In-Charge whose measurement shall be binding and conclusive and, (iii) until all the temporary works, labour and staff colonies etc. constructed are removed and the work site cleaned to the satisfaction of the Engineer-In-Charge. If Contractor shall fail to comply with the requirements as aforesaid or before date fixed for the completion of work, the Engineer-In-Charge may at the

expense of Contractor remove such scaffolding, surplus materials and rubbish and dispose off the same as he thinks fit.

3. The following documents will form the completion documents:-
 - a) Technical documents according to which the work has been carried out.
 - b) Three sets of construction drawings showing therein the modifications and corrections made during the course of execution signed by the Engineer-In-Charge.
 - c) Completion Certificate for "Embedded" or "Covered" up work.
 - d) Certificate of final levels as set out for various works.
 - e) Certificate of test performed for various work.
 - f) Material appropriation statement for the materials issued by owner for work and list of surplus materials returned to owner's store duly supported by necessary documents.
4. Upon expiry of the period of defect liability and subject to Engineer-In-Charge being satisfied that work has been duly maintained by Contractor during the defect liability period of fixed originally or as extended subsequently and that Contractor has in all respects made up any subsidence and performed all his obligations under contract, the Engineer-In-Charge (without prejudice to the rights of owner in any way) give final certificate to that effect. The Contractor shall not be considered to have fulfilled the whole of his obligation until final certificate shall have been given by the Engineer-In-Charge.
5. Final Certificate only evidence of completion:
Except the final certificate, no other certificate of payment against a certificate or on general account shall be taken to be an admission by owner of the due performance of contract or any part thereof of occupancy or validity or any claim by the Contractor.

GC-88 TAXES, DUTIES, ETC. :

1. Contractor agrees to and does hereby accept full and exclusive liability for the payment of any and all taxes including Sales Tax, Duties, etc., now or hereinafter imposed, increased or modified from time to time in respect of work and materials and all contributions and taxes for unemployment, compensation, insurance and old age pension or annuities now or hereinafter imposed by the Central or State Government authorities with respect to or covered by the wages, salaries or other compensation paid to the persons employed by Contractor.

If the Contractor is not liable to Sales Tax assessment, a certificate to that effect from the Competent Authority shall be produced without which final payment to the Contractor shall not be made No.P, 'C' and 'D' Form shall be supplied by the owner, and the Contractor shall be required to pay full tax as applicable.

2. Contractor shall be responsible for compliance with all obligations and restrictions imposed by the labour law or any other law affecting employer-employee relationship.
3. Contractor further agrees to comply and to secure the compliance of all sub contractors with applicable Central, State, Municipal and local laws and regulations and requirement. Contractor also agrees to defend, indemnify the hold harmless the owner from any liability or penalty which may be imposed

by Central, State or local authority by reasons of any violation by Contractor or sub Contractor of such laws, regulations or requirements and also from all claims, suits or proceedings that may be brought against owner arising under, growing out of or by reasons or work provided for by this Contract by third parties or by Central or State Government authority or any administrative Sub-Division thereof.

The Sales Tax on work contract will be borne by Contractor.

GC-89 INSURANCE :

Contractor shall at his own expenses carry and maintain the reputable Insurance Companies to the satisfaction of owner as follows :

1. Contractor agrees to and uses hereby accept full and exclusive liability for compliance with all obligations imposed by the Employer's State Insurance Act, 1948 and Contractor further agrees to defend, indemnify and hold owner harmless from any liability or penalty which may be imposed by the Central or State Government or local authority by reasons of any assorted violation by Contractor or Sub-Contractor or the Employees State Insurance Act, 1948 and also from all claims, suits or proceedings that may be brought against owner arising under, growing out of or by reasons of the work provided for by this contract whether brought by employees of Contractor by third parties or by Central or State Government authority or any administrative Sub-division thereof.

Contractor agrees to fill in with the Employees State Insurance Corporation, the declaration form and all forms which may be required in respect of Contractor's or sub-Contractor's employees whose aggregate remuneration is Rs.400/- p.m. or less and who are employed in work provided for or those covered by ESI from time to time under the agreement. The Contractor shall deduct and secure the agreement of the sub-Contractor to deduct the employees contribution as per the first schedule of the Employees State Insurance Act from wages. Contractor shall remit and secure the agreement of sub-contractor to remit to the State Bank of Indian Employees State Insurance Accounts, the employee's contribution as required by the Act. Contractor agrees to maintain all cards and records as required under the Act in respect of employees and payments and Contractor shall secure the agreements of the sub contractors to maintain in such records, any expenses incurred for the contributions, making contributions or maintaining records shall be to Contractors or sub-contractors own account. owner shall retain such sum as may be necessary from the contract value until Contractor shall furnish satisfactory proof that all contribution as required by the Employees State Insurance Act, 1948 have been paid.

2. **Workman's compensation and employees liability insurance:** Insurance shall be effected for all Contractors employees engaged in the performance of this contract. If any part of work is sublet, Contractor shall require the sub- Contractor to provide workman's compensation and employer's liability insurance, which may be required by owner.
3. Other Insurance required under law of regulations or by owner Contractor shall also carry and maintain any and all other insurance which may be required

under any law or regulation from time to time. He shall also carry and maintain any other insurance, which may be required by owner.

GC-90 DAMAGE TO PROPERTY :

1. Contractor shall be responsible for making good to the satisfaction of owner any loss of and any damage to all structures and properties belonging to owner or being executed or procured or being procured by owner or of other agencies within the premises of all work of owner, if such loss or damage is due to fault and / or the negligence of willful act or omission of Contractor, his employees, agent, representatives or sub-Contractor s.
2. Contractor shall indemnify and keep owner harmless of all claims for damage to properties other than property arising under by reasons of this agreement, such claims result from the fault and / or negligence or willful act or omission of Contractor, his employees, agents representative or sub-contractor.

GC-91 CONTRACTOR TO INDEMNIFY OWNER :

1. The Contractor shall indemnify and keep indemnified the owner and every member, officer and employee of owner from and against all actions, claims, demands and liabilities whatsoever under the in respect of the breach of any of the above clauses and / or against any claim, action or demand by any workman / employee of the Contractor or any sub-contractor under any laws, rules or regulations having force of laws, including but not limited to claims against the owner under the workman compensation Act, 1923, the Employee's Provident Funds Act, 1952 and / or the contract labour (Abolition and Regulations) Act, 1970.
2. PAYMENTS OF CLAIMS AND DAMAGES : If owner has to pay any money in respect of such claims or demands aforesaid, the amount so paid and the cost incurred by the owner shall be charged to and paid by Contractor without any dispute notwithstanding the same may have been paid without the consent or authority of the Contractor.
3. In every case in which by virtue of any provision applicable in the workman's Compensation Act, 1923 or any other Act, owner be obliged to pay compensation to workmen employed by Contractor the amount of compensation so paid, and without prejudice to the rights of owner under Section-(12) Sub-section-(2) of the said Act, owner shall be at liberty to recover such amount from any surplus due to on to become due to the Contractor or from the security deposit. Owner will not be bound to contest any claim made under Section-(12) Sub-section-(2) of the said act except on written request of Contractor and giving full security for all costs consequent upon the contesting of such claim.

The Contractor shall protect adjoining sites against structural, decorative and other damages that could be caused to adjoining premises by the execution of these works and make good at his cost, any such damage, so caused.

GC-92 IMPLEMENTATION OF APPRENTICE ACT 1954 :

Contractor shall comply with the provisions of the apprentice Act 1954 and the orders issued there under from time to time. If he fails to do so, it will be a breach of contract.

GC-93 HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS:

Contractor shall comply with all the rules and regulations of the local Sanitary Authorities or as framed by owner from time to time for the protection of health and provide sanitary arrangements of all labour directly or indirectly employed on the work of this contract.

GC-94 SAFETY CODE :

General :

Contractor shall adhere to safe construction practice and guard against hazardous and unsafe working conditions and shall comply with owner's rules as set forth herein.

1.0 First Aid and Industrial Injuries :

1.1 Contractor shall maintain First-Aid facilities for its employees and those of his sub-contractors.

1.2 Contractor shall make outside arrangements for ambulance service and for the treatment of industrial injuries. Name of those providing these services shall be furnished to Engineer-In-Charge prior to start of construction, and their telephone numbers shall be prominently posted in Contractor's field office.

1.3 All injuries shall be reported promptly to Engineer-In-Charge and a copy of Contractor's report covering each personal injury requiring the attention of a physician shall be furnished to owner.

2.0 General Rules :

2.1 Carrying and striking, matches, lighters inside the project area and smoking within the job site is strictly prohibited. Violators of smoking rules shall be discharged immediately. Within the operation area, no hot work shall be permitted, without valid gas, safety, fire permits. The Contractor shall also be held liable and responsible for all lapses of his sub-Contractor s / employees in this regard.

3.0 Contractor's Barricades :

3.1 Contractor shall erect and maintain barricades without any extra cost, required in connection with his operation to guard or protect during the entire phase of the operation of this contract for Excavation Hoisting areas Areas adjudged hazardous by Contractor's OR Owner's inspectors. Owner's existing property liable to be damaged by Contractor's operations, in the opinion of Engineer-In-Charge / Site Engineer.

3.2 Contractor's employees and those of his sub-contractors shall become acquainted with owner's barricading practices and shall respect the provisions thereof.

3.3 Barricades and hazardous areas adjacent to but not located in normal routes of travel shall be marked by red lantern at night.

4.0 Scaffolding :

4.1 Suitable scaffolding shall be provided for workman for all works that cannot safely be done from ladders. When a ladder is used, an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying

materials as well suitable footholds and handholds shall be provided on the ladder and the same shall be given an inclination not steeper than 1 in 4 (1 horizontal and 4 vertical).

- 4.2 Scaffolding or staging, more than 3.6 M. (12') above the ground or floor, swing or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached, bolted, braced and otherwise fixed at least 1.0 M (3') high above the floor or platform or scaffolding or staging and extending along the entire length of the outside ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- 4.3 Working platforms, gangways, and stairways should be so constructed that they should not sag unduly or inadequately and if the height of the platform or the gangway of the stairway is more than 3.6 (12') above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in 4.2 above.
- 4.4 Every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 1.0 M (3'.0").
- 4.5 Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9.0 M. (30') in length while the width between the side rails in rung ladder shall in no case be less than 30 cms (12 inches) for ladder up to and including 3.0 M. (10'), in longer ladders this width would be increased at least 6 mm (1/4") for each addition 30 c.m. (1.0) of length. Uniform step spacing shall not exceed 30 cms. (12"). Adequate precaution shall be taken to prevent danger from electrical equipment. No materials on any of the side of work shall be so stacked or placed as to cause danger or inconvenience to any person or public. The Contractor shall also provide all necessary all necessary fencing and lights to protect the workers and staff from accidents, and shall be bound to bear the expenses of defence of every suit action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay damages and costs which may be awarded in any such suit or action or proceedings to any such person, or which, may be with the consent of the Contractor be paid to compromise any claim by any such person.
- 5.0 Excavation :
- 5.1 All trenches 1.2 M (4') or more in depth, shall at all time be supplied with at least one ladder.
- 5.2 Ladder shall be extended bottom of the trench to at least 3" above the surface of the ground. The side of the trench which are 1.5 M (5') or more in depth shall be stepped back to give suitable slope, or securely held by timber bracing, so as to avoid the danger of sides to collapse. The excavated materials shall not be placed within 1.5 M (5') of the trench of half of the trench depth whichever is more. Cutting shall be done from top to bottom. Under no circumstances, undermining or under cutting be done.

6.0 Demolition :

- 6.1 Before any demolition work is commenced and also during the progress of the work all roads and open area adjacent to the work site shall either be closed or suitably protected.
- 6.2 No electric cable or apparatus which is liable to be a source of danger shall remain electricity charged.
- 6.3 All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor or other part of the building shall be so over loaded with debris or materials as to render it unsafe.

7.0 Safety Equipment :

- 7.1 All necessary personal safety equipment as considered necessary by the Engineer-In-Charge should be made available for the use of persons employed on the site and maintained in a condition suitable for immediate use, and the Contractor should take adequate steps to ensure proper use of equipment by those concerned.
- 7.2 Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective gloves.

8.0 Risky Place :

- 8.1 When the work is done near any place where there is a risk of drowning, all necessary safety equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first-aid treatment of all injuries likely to be sustained during the course of the work.

9.0 Hoisting Equipment :

- 9.1 Use of hoisting machines and tackles including their attachments, and storage and supports shall conform to the following standards or conditions.
- 9.2 These shall be of good mechanical construction, sound material and adequate strength and free from patent defect and shall be kept in good condition and in good working order.
- 9.3 Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength and free from patent defects.
- 9.4 Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in-charge of any hoisting machine including any scaffolding.
- 9.5 In case of every hoisting machine and of every chain ring hook, shackle, swivel and pulley block used in hoisting or lowering or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

9.6 In case of departmental machine, the safe work load shall be notified by the Engineer-In-Charge, as regards Contractor s machine, the Contractor shall, notify, the safety working load of the machine to the Engineer-In-Charge. Whenever the Contractor brings any machinery to site of work he should get it verified by the Engineer-In-Charge concerned.

10.0 Electrical Equipment:

Motors, gears, transmission, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards, hoisting appliances should be provided with such means when will reduce to the minimum the risk of accidental descent of the load, adequate precautions shall be taken to reduce to the minimum the risk of any part or a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel such as gloves, and booths as may be necessary shall be provided. The workers shall not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

11.0 Maintenance of Safety Devices :

All scaffolds, ladders and other safety devices as mentioned or described herein shall be maintained in sound condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near place of work.

12.0 Display of Safety Instructions :

The safety provisions should be brought to the notice of all concerned by display on a Notice Board at a prominent place at the work spot. The persons responsible for compliance of the safety code shall be named therein by the Contractor.

13.0 Enforcement of Safety Regulations :

To ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangement made by the Contractor shall be open to inspection by the Welfare Officer, Engineer-In-Charge or Safety Engineer of the owner or their representatives.

14.0 No Exemption :

14.1 Notwithstanding the above clause 1.0 to 13.0 there is nothing to exempt the Contractor from the operations of any other Act or Rules in force in the Republic of India.

14.2 In addition to the above, the Contractor shall abide by the safety code provisions as per C.P.W.D. safety code framed from time to time.

GC-95 ACCIDENTS :

It shall be Contractor's responsibility to protect against accidents on the works. He shall indemnify the owner against any claim for damage or for injury to person or property resulting from, and in the course of work and also under the provisions of the workman's compensation Act. On the occurrence of an accident arising out of the works which results in death or which is so serious as to be likely to result in death, the Contractor shall within twenty-four hours of such accident,

report in writing to the Engineer-In-Charge, the facts stating clearly and in sufficient details the circumstances of such accident and the subsequent action. All other accidents on the works involving injuries to person or damage to property other than that of the Contractor shall be promptly reported to the Engineer-In-Charge, stating clearly and in sufficient details the facts and circumstances of the accidents and the action taken. In all cases, the Contractor shall indemnify the owner against all loss or damage resulting directly or indirectly from the Contractor's failure to report in the manner aforesaid. This includes penalties or fines, if any, payable by the owner as a consequence of failure to give notice under the Workman's Compensation Act, or failure to conform to the provisions of the said act in regard to such accidents.

In the event of an accident in respect of which compensation may become payable under the Workman's Compensation Act VIII of 1923 including all modification thereof, the Engineer-In-Charge may retain out of money due and payable to the Contractor such sum of sums of money as may in the opinion of Engineer-In-Charge be sufficient to meet such liability. On receipt of award from the Labour Commissioner in regard to quantum of compensation, the difference in amount will be adjusted.

Asst.Engineer
Rajkot Muni. Corporation

Dy.Ex.Engineer
Rajkot Muni. Corporation

CITY ENGINEER (SPECIAL)
Rajkot Muni. Corporation

Signature of Contractor.

TECHNICAL SPECIFICATIONS CONTENTS

SR NO	PARTICULARS
A	GENERAL
1	Scope of Contract
2	Tender Price
3	Completion Schedule
4	General Technical Guideline
B	SPECIFICATION OF MATERIAL
C	DETAILED TECHNICAL SPECIFICATION
D	ADDITIONAL CONDITIONS

:: TECHNICAL SPECIFICATION ::

(A) GENERAL

1. SCOPE OF CONTRACT :

The work entitled comprise of **DEVELOPMENT OF 24.0 MTR PAAL ROAD IN WARD NO.11 (RETENDER)** complete as per specifications.

2. TENDER PRICE :

The rates quoted in the bill of quantities shall cover everything necessary for the due and complete execution of the work according to the design submitted by contractor and approved by RMC and drawings and other condition and stipulations of the contract including specifications of the evident, intend and meaning of all or either of them or according to customary usage and for periodical and final inspection and test and proof of the work in every respect and for measuring, numbering or weighing the same, including setting out and laying or fixing in position and the provision of all materials, power, tools, rammers, labour, tackle, platforms with impervious lapped joints for scaffolding, ranging roads, straight edged, cantering and boxing, wedges, moulds, templates, posts, straight rods, straight edged, cantering and boxing, wedges, moulds, templates, posts, straight rails, boning staves strutting, barriers, fencing lighting pumping apparatus, temporary arrangement for passage of traffic access to premises and continuance to drainage water supply and lighting (if interrupted by contractor's work) temporary sheds, painting, varnishing, polishing establishment for efficient supervision and stating arrangements for the efficient protective of life and property and all requisite plant and machinery of every kind.

The contractor shall keep every portion of the work clear of accumulation from time to time and shall leave every portion of the work clean, clear, perfect and at the conclusion of whole, providing at their own cost all such material implement, appliances and labour as the Engineer in charge may require to prove if it to be so.

3. COMPLETION SCHEDULE :

The contract period shall be as prescribed in tender notice, from the date of notice to proceed. The Contractor shall submit his completion schedule and the program of works together with this tender in conformity with completion schedule given in the documents.

4. GENERAL TECHNICAL GUIDELINE :

- 4.1 All the items occurring in the work and as found necessary during actual execution shall be carried out in the best workman like manner as per specifications and the written order of the Engineer in charge
- 4.2 Extra Claim in respect of extra work shall be allowed only if such work is ordered to be carried out in writing by the Engineer in charge
- 4.3 The contractor shall engage a qualified Engineer for the Execution of work who will remain present for all the time on site and will receive instructions and orders from the Engineer-in-charge or his authorized representative. The instruction and orders given to the contractor representative on site shall be considered as it given to the contractor himself.

- 4.4 The work order book as prescribed shall be maintained on the site of the work by the contractor and the contractor shall sign the orders given by the inspecting officers and shall carry out them properly.
- 4.5 Quantities specified in the tender may vary at the time of actual execution and the contractor shall have no claim for compensation on account of such variation
- 4.6 Unexcavated lengths shall be left wherever required and so directed by the Engineer in charge during the currency of the contract and shall be tackled. If required, before completion of work.
- 4.7 Diversion of road, if necessary, shall be provided and maintained during the currency of the contract by the contractor at his cost.
- 4.8 Figured Dimensions of drawing shall supersede measurements by scale, special dimensions or directions in the specifications shall supersede all other dimensions.
- 4.9 The contractor shall be responsible to take regular level on the approved alignment before actually starting the work. The levels shall be commenced to the G.T.S. levels and shall be got approved from the Engineer in charge before 10 days of starting of paver work.**
- 4.10 If the arrangement of temporary drainage or waterway is required to be made during any work of this Contract, this shall be made by the Contractor without claiming any extra cost.
5. The rates are inclusive of dewatering, if required.
6. During construction activity, proper care must be taken for labour safety and must follow the provisions of the Labour laws.
7. In case of any ambiguity found in Technical Specifications / inspection drawings etc. the decision of engineer-in-charge shall be final and binding to the contractor.

Asst.Engineer
Rajkot Muni. Corporation

Dy.Ex.Engineer
Rajkot Muni. Corporation

CITY ENGINEER (SPECIAL)
Rajkot Muni. Corporation

Signature of contractor

SPECIFICATIONS OF MATERIALS

M-1

Aggregates:

1.1. Coarse Aggregates

1.1.1

Coarse aggregates shall comply with the requirements of IS 383. As far as possible crushed semi-crushed aggregates shall be used. For ensuring adequate durability, the aggregate used for production of blocks shall be sound and free of soft or honeycombed particles.

1.1.2

Other types of aggregates such as slag and crushed, over-burnt brick or tile which maybe found suitable with regard to strength, durability of concrete and freedom from harmful effects may be used in preparation of concrete for production of paver blocks. However such aggregates shall not contain more than 0.5 percent of sulphates as SO₃ and shall not absorb more than 2 percent of their own mass of water.

1.1.3

Heavy weight aggregates or light weight aggregates such as bloated clay aggregates and sintered fly ash aggregates may also be used provided the purchaser is satisfied with the data on the properties of concrete made with them.

1.1.4

The nominal maximum size of coarse aggregates used in production of paver blocks shall be 12 mm.

1.2.

Fine Aggregates

Fine aggregates shall conform to the requirements of IS 383. Both river/quarry sand and stone dust meeting the requirements can be used.

M-2

Bitumen:

The bitumen shall be paving bitumen of Penetration Grade VG-30 complying with Indian Standard Specifications for "Paving Bitumen" IS:73 and as per MoRTH specification.

M-3

Stone Dust:

This shall be obtained from crushing hard black trap or equivalent. It shall not contain more than 8% of silt as determined by field test with measuring cylinder. The method of determining silt contents by fields test is given as under:

A sample of stone dust to be tested shall be placed without drying in 200 mm measuring cylinder. The quantity if the sample shall be such that it fills the cylinder upto 100 mm mark, the clean water shall be added upto 150 mm mark. The mixture shall be stirred vigorously and content allowed to settle for 3 hours.

The height of silt visible as settled layer above the stone dust shall be expressed as percentage of the height of the stone dust below. The stone containing more than 8% silt shall be washed so as to bring the content within the allowable limit.

The fitness nodules of stone dust shall not be less than 1.80

M-4

Stone Grit:

Grit shall consist of crushed or broken stone and be hard, strong dense durable clean of proper gradation and free from skin or coating likely to prevent proper adhesion of mortar. Grit shall generally be cubical in shape and as far as possible flaky elongated pieces shall be avoided. It shall generally comply with the provisions of IS 383 (Latest Edition). Unless special stone of particular quarries is mentioned, grit shall be obtained from the best black trap or equivalent hard

stone as approved by the engineer-in-charge. The grit shall have no deleterious reaction with cement.

The grit shall conform to the following gradation as per sieve analysis:

I.S. Sieve Designation	Percentage passing through sieve	IS Sieve Designation	percentage pass- ing through sieve
12.50 mm	100%	4.75 mm	0-20%
10.00 mm	85-100%	2.36 mm	0-25%

The necessary tests for grit shall be carried out as per the requirements of I S 2386 (Part I to VIII) Latest edition as per instruction of engineer-in-charge. The necessity of test will be decided by the engineer-in-charge.

Asst.Engineer
Rajkot Muni. Corporation

Dy.Ex.Engineer
Rajkot Muni. Corporation

CITY ENGINEER (SPECIAL)
Rajkot Muni. Corporation

Signature of Contractor.

DETAILED TECHNICAL SPECIFICATIONS

Item No.1: **Breaking of Pavement Surface**

Removing Bitumen Paver surface with any thickness and using mechanical power breaker or manually whichever site engineer suggests. Agency / Contractors should not use JCB / Hydro breaker without site engineer's pre approval.

It will be the sole responsible of agency to repair any extra paver / road damages at its own cost. Excavated material / Bitumen surface shall be disposed at following site as Notified by RMC and as directed by the engineering in charge.

1. Beside Kotharia Police Station near Stone Quarry
2. All Quarry areas of Raiya Smart City
3. TP Scheme No.10, FP-87, Dhebar Road (South), Atika Area, Nr. PGVCL Office
4. TP Scheme No.23, FP-23, Nr. IOC Godown, Morbi Road
5. TP reservation plot at Samrat industrial Area, Bh. ST Workshop
6. TP Scheme No.9, FP-5, Nr. Raiyadhar Garbage Station
7. TP Scheme No.20, FP-35, Bh. Pradhuman Green
8. TP Scheme No.28 (Mavdi), FP-46/A, Nr. GETCO Circle
9. TP Scheme No.12, FP-38/A and 39/B, Nr. Lijjat Papad, Kothariya Nationla Highway

If the contractor fails to dispose the excavated stuff as specified, penalty will be imposed by Rajkot Municipal Corporation as per the Notification for C&D waste.

No Payment shall be made for breaking of excess bitumen surface and removal of the same.

Payment shall be made on Sq.mt bases.

Item No.1. and 1.2: **Excavation for Road work including bitumenus surface upto 20 cm depth and extra depth upto 45 cm**

The land with required for the road way shall be cleared of all trees having a girth of 30 cms and less, loose stones, vegetation, bushes, stumps and all other objectionable materials. The roots of trees and stumps shall be removed to a depth of 30 cms below the grade of formation and slope of excavation filled up with excavated materials and compacted. All the materials cleared will be the property of Rajkot Municipal Corporation.

After clearing the site, the alignment of the road shall be properly set out true to lines, curves, grades and sections as shown on plan or directed by the engineer-in-charge. The contractor shall provide all labour and materials such as lime, strings, pegs, nails, bamboos, stone mortal, concrete etc. required for setting out alignment establishing bench marks and giving profiles. The contractor will be responsible for maintaining BM alignments, and other stakes and marks.

The excavation shall be finished neatly smooth and evenly to correct lines, curves, grades if loose shall be scarified watered and compacted. The contractor shall on no account excavate beyond the slope or below the specified level or outside the section. It shall not be paid for and the contractor shall be required to fill up at his own cost with good and approved material by engineer in charge.

All necessary traffic arrangement is to be done by contractor. No extra will be paid for this.

The payment shall be made at per square meter basis.

Item No.1.3:

Excavation of Foundation in Soft Murrum. Soil or Sand from 0.0 mtr. to 1.50 mtr depth including lifting and laying as instructed

1.0 General:

1.1 Any soil which generally yields to the application of the pickaxes and shovels, phawaras rakes or any such ordinary excavation implement or organic soil, gravel, slit, sand turf lawn, clay, peat etc. fall under this category.

2.0 Cleaning the site:

2.1 The site on which the structure is to be built shall be cleared, and all obstructions, loose stone, materials and rubbish of all kind, bush, wood and trees shall be removed as directed. The materials so obtain shall be property of the government and shall be conveyed and stacked as directed within RMC limit. The roots of the tree coming in the sides shall be cut and coated with a asphalt.

2.2 The rate of site clearance is deemed to be included in the rate of earth work for which no extra will be paid.

3.0 Setting out:

After clearing the site, the center lines will be given by the engineer-in-charge. The contractor shall assume full responsibility for alignment, elevation and dimension and of each and all parts of the work. Contractor shall supply labors, materials, etc required for setting out the reference marks and bench marks and shall maintain them as long as required and directed.

4.0 Excavation:

The excavation in foundation shall be carried out in true line and level and shall have the width and depth as shown in the drawings or as directed. The contractor shall do the necessary shoring and strutting or providing necessary slopes to a safe angle, at his own cost. The bottom of the excavated area shall be leveled both longitudinally and transversely as directed by removing and watering as required. No earth filling will be allowed for bringing it to level, if by mistake or any other reason excavation is made deeper or wider than that shown on the plan or directed. The extra depth or width shall be made up with concrete of same proportion as specified for the foundation concrete at the cost of the contractor. The excavation upto 1.5 mt depth shall be measured under

this item.

Mode of Measurement and Payment:

The measurement of excavation in trenches for foundation shall be made according to the sections of trenches shown on the drawing or as per sections given by the engineer-in-charge. No payment shall be made for surplus excavation made in excess of above requirement or due to stopping and sloping back as found necessary on account of conditions of soil and requirements of safety.

The rate shall be for a unit of one cubic Meter.

Item No.2:

A) Supplying of hard murrum binding material.

B) Spreading bindage or road crust filling the gaps in metal and levelling to camber and gradient and directed murrum.

- A) Material for the purpose shall be approved quality. Any material which is found inferior shall be rejected and contractor shall remove such rejected material from the site at his own cost.

The material shall be got approved by the CITY ENGINEER prior to collection on the site. It shall be free from all rubbish, dust and any organic materials as well as clouds of black cotton soils.

For road work, complete stocking of materials as per requirements shall be carried out 200 m length or as per condition of site or as per instructions of site incharge before spreading. The stacks of materials shall be got cross checked by Dy.Ex.Engineer as per rules before spreading.

Where any doubt exists as whether quantity of stacking of murrum corrected by contractor, no extra payment shall be claimed by contractor. If the quantity of murrum in any stack found less than standard measurement viz; 1.5 cmt. The entire shall be paid on the basis of the quantity so found.

The payment shall be on cubic meter basis without deduction for voids. The contractor shall maintain all stacks in regular and proper size till whole material shall not measure and finally accepted by the department.

The rates includes cost of collection, conveyance to the site with all lead and lift and filling the boxes including all labours, tools, equipment and other expenses. The rates quoted are inclusive of all such tools, duties, royalties, taxes etc.

- B) Spreading of material shall be started after the full supply in particular length is collected, measured and recorded. Permission of Engineer in-charge shall be obtained before spreading. It shall be seen that formation is dressed to required camber and grade. If the murrum is to be spread over the metaled surface then the spreading shall be uniform and as it has

to act as binding surface. It shall be used for filling the interstices of metal and forming a smooth running surface as far as possible. Murrum bindage shall be spread evenly with a twisting motion of the baskets. No more murrum shall be used than specified as bindage. The contractor shall do good all unevenness, depression, projection etc. during consolidation work. Rate of these items includes all these operation except consolidation. **Also, the work is to be carried out with Mini Roll / Road Roller / Hand Roll as may be required for the work as per the requirement and instructions of engineer in charge.** The payment shall be made on cubic meter basis.

The testing of material is to be carried out by the Agency at his own cost.

Item No.3:

Construction of granular sub-base by providing close graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with vibratory roller to achieve the desired density complete (Grade-I)

The work is to be carried out as per MoRTH Specification Clause No.401.

The material to be used for granular sub base must be confirming to MoRTH and the grade specified with respect to CBR value and the rate should be considered as per Schedule-B. The material used in the design must be used for the construction. The payment for this item will be made on Cubic Meter basis.

Item No.4:

Construction of granular sub-base by providing close graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with vibratory roller to achieve the desired density complete (Grade-III)

The work is to be carried out as per MoRTH Specification Clause No.401.

The material to be used for granular sub base must be confirming to MoRTH and the grade specified with respect to CBR value and the rate should be considered as per Schedule-B. The material used in the design must be used for the construction. The payment for this item will be made on Cubic Meter basis.

Item No.5:

Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material by tipper to site, laying in uniform layers with paver in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density

The work is to be carried out as per relevant MoRTH Specification.

The payment for this item will be made on Cubic Meter basis.

Item No.6:

Providing and applying Primer coat with bitumen emulsion (Slow Setting type - 1 IS8887 Bulk) on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means.(As Per MoRTH-502)

The work is to be carried out as per relevant MoRTH Specification.

The payment for this item will be made on one square meter basis.

Item No.7:

Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder Grade 60/70 @ 4.0 percent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects

- **For Grading II (19 mm nominal size)**

The work is to be carried out as per relevant MoRTH 507 Specification.

The payment for this item will be made on MT basis.

Item No.8:

Providing and laying Bituminous Concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder grade 60/70 @ 5.5 percent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause no. 509 complete in all respect for Grading II (10 mm Size)

The work is to be carried out as per MORTH specification Clause No.509 or relevant Clause as may be directed by engineer in charge.

The payment for this item will be made on MT basis.

Item No.9:

Supply and laying of machine crushed aggregate of 25-38 mm

Machine Crushed metal shall be of approved quarry and it should be approved by the In-charge Site Engineer prior to collection.

The machine crushed metal shall be hard, tough, sound, durable, black trap field

metal of close texture, with the decay and weathering. Each piece of the stone shall be angular and roughly cubical in shape and round elongated or flaky material shall be rejected. No round or oblong pebbles or at guar chips larger or smaller than specified size shall be allowed.

All unsound, weathered or disinclined stone obtained from the upper surface layer of the quarry or other layer of boulders shall be rejected. The physical requirement for standard size metal shall conform to the test results indicated in Table No.1. The metal shall be nearly uniform in size as possible and shall conform to following minimum requirements of passing through the rings.

The physical requirement for standard size metal shall conform to the test results indicated in the Table No.1 below:

Table No.1

Type of Const.	Test Method	Requirement
Base (a) Los Angelos abrasion Value Or Aggregate Impact Value.	IS: 2386 Part iv	50 % (Max.)
(b) Flakiness index & Elongation Index	IS 2386 Part iv or IS :5640	40 % (Max.)
(c) Water Absorption	IS :2386 Part I	30 % (Combined.)
	IS: 2386 Part-3	2% (Max.)

Table No.2

Grading No.	Size Range	IS Sieve Designation	Per cent by weight passing
2	25 mm to 38 mm	90 mm	100
		63 mm	90-100
		53 mm	25-75
		45 mm	0-15
		22.4 mm	0-5

Wherever and doubt exists as to whether the above requirement are satisfied in whole or part. The collection of M.C. metal shall be got screened by the contractor, it so ordered by the In-charge Site Engineer and for which no extra payments shall be claimed by the contractor.

Any collection which does not fully satisfy the above requirements is liable to be rejected altogether. Frequency of test shall be as per Ministry of Surface Transport Specifications. Agency has to submit complete drawing of leveling after each layer of work as mentioned in Special Conditions of Contract.

Also, the work is to be carried out with Mini Roll / Road Roller / Hand Rollas may be required for the work as per the requirement and instructions of engineer in charge.

The measurements shall be taken on cubic meter basis.

Item No.10 and 11:

Supply and fixing of 80 mm thick M-30 i.e. compressive strength of 300 Kg / sq.m. cement concrete rubber mold interlocking paving blocks (Grey Color) ISI Mark to

be supplied and fixed as instructed with Concreting 1:2:4 the end of blocks (with Cement joints) in bedding of black stone sand for 50 mm thick leveling and fixing of interlocking blocks in line level on it with compacter machine and cleaning and filling the joints with sand (without cement vata) including cement concrete prop. 1:2:4 as per instruction in gap at end block and color as per instruction including curing complete

And

Supply and fixing of 60 mm thick M-30 i.e. compressive strength of 300 Kg / sq.m. cement concrete rubber mold interlocking paving blocks (Grey Color) ISI Mark to be supplied and fixed as instructed with Concreting 1:2:4 the end of blocks (with Cement joints) in bedding of black stone sand for 50 mm thick leveling and fixing of interlocking blocks in line level on it with compacter machine and cleaning and filling the joints with sand (without cement vata) including cement concrete prop. 1:2:4 as per instruction in gap at end block and color as per instruction including curing complete

5.1 Paver Block Manufacturing facilities

RAJKOT MUNICIPAL CORPORATION, at its discretion shall nominate its representative for inspection of the factory. Party shall co-ordinate and co-operate with representative of RAJKOT MUNICIPAL CORPORATION. The party shall inform the address, telephone numbers and other details of the workshop and the contact person to enable RAJKOT MUNICIPAL CORPORATION depute its representative. The party shall allow entry to RAJKOT MUNICIPAL CORPORATION representative during all working days and time.

The Paver Block shall be made in factory with following minimum facilities:

5.1.1 Design Mix Concrete:

- (a) All pavers designated by strength shall be treated as design mix concrete. The aggregate and cement shall be measured by weight in an approved weigh batching equipment. Mixing water shall be measured in graduated litre cans. One or more complete bags of cement shall be used for each batch of concrete.
- (b) The contractor shall be responsible for designing mixes of the specified performance to suit the degree of workability and characteristic strength. The mix design shall be finalized before manufacturing of the paver considering a set of suppliers for cement, sand and aggregates. In case of any change of suppliers of cement, sand or aggregates, party should have design mix ready for alternate suppliers.
- (c) The minimum cement content for compacted concrete of pavers shall not be less than 300/350/400 Kg / sq mtr as per design.
- (d) The maximum water cement ratio for pavers concrete shall not be more than 0.40
- (e) The design mix proportions for each set of raw material suppliers shall be finalized and approved by the authorized lab for the required compressive strength and the lab report with proportions should be available with the vendor at all times for scrutiny and verification purpose.

5.1.2 Paver Block Making Machine:

The machine should be capable of producing high quality Paver Blocks by obtaining high level of compaction by application of hydraulic compaction

and also by high intensity vibration to the moulds. The machine should have automatic control panel and shall apply a minimum pressure of 3000 psi and then there shall be automatic cut off of hydraulic circuit without any manual interference. In no case, pavers mould by manual force or by machine without auto cut off shall be accepted. All pavers shall have uniformity in strength.

5.1.3 Weigh Batching & Mixing Equipment:

- (a) The proportioning of ingredients of concrete per batch of concrete shall be performed by an approved weigh batching machine. Water shall be fed into the mixer from a tank provided with means for adjusting the flow of water so as to supply the quantity determined for concrete as per mix design. Due allowance shall be made for the weight of water carried by aggregates so that actual amount added at the mixer can be reduced as necessary. For this purpose the moisture content of coarse and fine aggregates shall be ascertained as and when required and at other times when alteration of the moisture content may be expected due to new deliverance of aggregates, inclement weather or other reasons.
- (b) Volumetric batching of concrete may be allowed after the design mix is approved by lab after testing, by converting the proportion of concrete from weight to volumetric measurement subject to facilities being made available by the contractor for verifying and monitoring this.
- (c) All necessary equipment such as measuring boxes, devices for determination of moisture and bulking in sand, slump cone, etc. shall be provided by the contractor. Concrete shall be machine mixed until there is a uniform distribution of materials and uniform colour and consistency is achieved and under no circumstances for less than two minutes.

The concrete Mix Design should be followed for each batch of materials.

5.1.4 Curing :

The factory should have well designed curing area to ensure adequate (minimum 14 days) curing of paver blocks.

5.1.5 Laboratory

The factory should have the following:

- (i) Compression testing machine of capacity minimum 200 MT
- (ii) Other tools and equipment for testing raw materials and paver blocks.
- (iii) (1) Systematic record of test results of various paver blocks manufactured in the factory.
- (2) Concrete Mix Design for desired grade of concrete used for making of paver blocks.

5.2. Raw Materials.

5.2.1 CEMENT

The cement used in the manufacture of high quality precast concrete paving blocks shall be conforming to IS 12269 (53 grade ordinary Portland cement) or IS 8112 (43 grade ordinary Portland cement) or IS 1489 (Part 1) (Portland-pozzolana cement – fly ash based). The minimum cement content in concrete used for making paver blocks should be 380 kg/Cum.

5.2.2 AGGREGATES

The fine and coarse aggregates shall consist of naturally occurring crushed or uncrushed materials, which apart from the grading requirements comply with IS 383-1970. The fine aggregates used shall contain a minimum of 25% natural silicon sand. Lime stone aggregates shall not be used.

Aggregates shall contain no more than 3% by weight of clay & shall be free from deleterious salts and contaminants. Zone iv sand shall not be acceptable. Course aggregate shall be 10 mm and below.

5.2.3 WATER

The water shall be clean and free from any deleterious matter. It shall meet the requirements stipulated in IS: 456-2000.

5.2.4 OTHER MATERIALS

Any other materials / ingredients used in the concrete shall conform to I.S. Specifications.

PIGMENT: The pigment shall be used only on wearing and top surface and throughout the paver block. The pigment used shall not be more than 10% of weight of cement used in the wearing course layer. However, use of pigment shall in no way alter the required strength of the paver block.

Pigment used for coloring paver blocks shall have durable color. It shall not contain matters detrimental to concrete. The pigment shall not contain Zinc compound. Lead pigment shall not be used.

5.3. Pavers Block Characteristics

5.3.0 The inter locking concrete paver tiles should conform to IS-15658 (LATEST). They shall be tested as per the code and have to qualify limits specified by us down below.

5.3.1 The paver tiles should be made of M-30 (80 mm) design mix concrete in approved size and shape. For acceptance the average of compressive strengths of 8 pavers shall be minimum 30 N/mm^2 (MPa). Any paver in the tested lot shall not have compressive strength less than 30.1 MPa. If needed, pavers shall be designed and manufactured on higher side to concrete grade M-30 to meet this requirement without extra cost to RAJKOT MUNICIPAL CORPORATION. Testing shall be done as per relevant clauses of IS-15658 (LATEST).

5.3.2 The concrete pavers should have perpendicularities after release from the mould and the same should be retained until the laying.

5.3.3 The surface should be of anti skid and anti glare type.

5.3.4 The paver should have uniform chamfers to facilitate easy drainage of surface run off.

5.3.5 The concrete mix design should be followed of each batch of materials separately and weigh batching plant is to be used to achieve uniformity in strength and quality.

5.3.6 The pavers shall be manufactured in single layer or more to ensure smooth surface on top and to remove all voids.

- 5.3.7 The pavers shall be of cement Grey colour without any pigment or colored with pigment or with chemically treated top surface as specified.
- 5.3.8 All paver blocks shall be sound and free of cracks or other visual defects, which will interfere with the proper paving of the unit or impair the strength or performance of the pavement constructed with the paver blocks.
- 5.3.9 The compressive strength requirement of concrete paver block shall be minimum 30 MPa (N/sqmm) for 28 days (Testing as per IS-15658) after applying the correction factor as per IS-15658 (LATEST). (Please refer clause 3.1 also).

5.4. Paver Block Dimensions

Thickness	60 / 80mm
Shape	Regular (Uniform shape with no Hollow or Cracks)
Chamfer	5 mm to 7 mm along top edges
Thickness of Wearing Layer	Minimum 6 mm (The thickness of the wearing surface shall be measured at several points along the periphery of paver blocks. The arithmetic mean of the lowest two values shall be the minimum thickness of the wearing layer)
Plan Area A_{sp} (Ref. Cl.B-3.3 Annex B, IS-15658 (LATEST))	Maximum 0.03 m ²
Colour	Natural cement Grey colour without use of any pigment OR colour as specified
Dimensional Tolerance	Tolerances as per IS-15658 (LATEST)

Note: All other visual/physical & dimensional acceptance on parameters like aspect ratio, squareness etc to be as per IS-15658 (LATEST)

5.5. Testing of Paver Blocks

1 FOR 60 / 80MM PAVER TILES

TEST	SPECIFICATION Average Values
28 day Compressive Strength	Minimum 30 MPa (N/Sqmm)

Abrasion Resistance	Maximum 2 mm [i.e. 10 units of 1000 mm ³ per 5000 mm ² reported as per E-5 of Annex E of IS-15658 (LATEST)]
Water Absorption	Avg. of 3 units - Maximum 6% by mass (restricted to 7% in individual test units)

☐ **Sampling and Testing Procedure strictly As Per IS-15658 (LATEST).**

5.6. Laying of Paver Blocks

5.6.1 PRIMING

The contractor is required to verify the existing WBM driveway surface and ascertain the CBR value. Accordingly the total subgrade thickness required for achieving the desired CBR value shall be advised to RAJKOT MUNICIPAL CORPORATION within seven days of receipt of call-up. RAJKOT MUNICIPAL CORPORATION shall, through regular vendors arrange to carryout such WBM, wherever required. Before taking over the site, the Paver block laying party is required to verify the stabilization of the surface with CBR values. In case, contractor does not advise the CBR value within seven days, RAJKOT MUNICIPAL CORPORATION shall carry out WBM as per own design, and contractor shall have no claim later particularly to the quality of WBM or sub-grade.

It will be the responsibility of the Paver block party to ensure that the Manholes / Pipeline / Cable trenches / circular drainage system etc. is raised to driveway level using the requisite materials as per instruction of EIC. The areas of potholes / deep depressions at the isolated locations shall be filled up and properly compacted before laying the paver blocks. No extra payment will be made for this purpose. The area of raised manholes shall be included in the measurement of overall area of paver blocks for the purpose of payment.

5.6.2 BEDDING SAND COURSE

The bedding sand shall consist of naturally occurring, clean, well graded sand passing through 4.75mm sieve and suitable to concrete manufacture. The bedding should be from either a single source or blended to achieve the following grading.

IS SIEVE SIZE	% PASSING
9.52mm	100
4.75mm	95-100
2.36mm	80-100
1.18mm	50-100
600 microns	25-60
300 microns	10-60
150 microns	5-15
75 microns	0-10

Contractor shall be responsible to ensure that single-sized, gap-graded sands or sands containing an excessive amount of fines or plastic fines are not used. The sand particles should preferably be sharp, not rounded. The sand used for bedding shall be free of any deleterious soluble salts or other contaminants likely to cause efflorescence.

The sand shall be of uniform moisture content, which shall be within 4% - 8%, at the time of spreading and shall be protected against rain when stockpiled prior to spreading. Saturated sand shall not be used.

The bedding sand shall be spread loose in a uniform layer as per drawing. The compacted uniform thickness shall be 50mm and within \pm 5mm. Thickness variation shall not be used to correct irregularities in the base course surface.

The spread sand shall be carefully maintained in a loose dry condition and protected against pre-compaction both prior to and following spreading. Any pre-compacted sand left overnight shall be loosened before further laying of paver blocks takes place.

Sand shall be slightly spread in a loose condition to the predetermined depth only slightly ahead of the laying of the paver block.

Any depressions in the spread sand exceeding 5mm shall be loosened, raked and re spread before laying of paver block.

5.6.3 LAYING OF INTERLOCKING PAVER BLOCK:

Paver block shall be laid in pattern as specified under cl. 7 throughout the pavement. Once the laying pattern has been established, it shall continue without interruption over the entire pavement surface. Cutting of blocks, the use of infill concrete or discontinuities in laying pattern is not to be permitted in other than approved locations.

Paving units shall be placed on the uncompacted sand bed to the nominated laying pattern; care shall be taken to maintain the specified bond throughout the job. The first row shall be located next to an edge restraint. Specially manufactured edge paving units are permitted or edge units may be cut using a power saw, a mechanical or hydraulic guillotine, bolster or other approved cutting machine. No haphazardly broken pavers shall be used.

Paver block shall be placed with the help of spacers to achieve gaps nominally 2 to 3mm wide between adjacent paving joints. No joint shall be less than 2mm nor more than 4 mm. **However it is mandatory to use 3.0mm wide spacer while laying paver tiles so as to ensure uniform 3.0mm gap between adjacent pavers.** Frequent use of string lines shall be used to check alignment. In this regard, the "laying face" shall be checked at least every two metre as the face proceeds. Should the face become out of alignment, it must be corrected prior to initial compaction and before further laying job is proceeded with.

In each row, all full units shall be laid first. Closure units shall be cut and fitted subsequently. Such closure units shall consist of not less than 25% of a full unit.

To fill spaces between 25mm and 50mm wide, concrete having minimum 1:1:2 cement : sand : coarse aggregate mix and a strength of 40 N/Sqmm shall be used. Within such mix the nominal aggregate size shall not exceed one third the smallest dimension of the infill space. For smaller spaces dry packed mortar shall be used.

Except where it is necessary to correct any minor variation occurring in the laying bond, the paver block shall not be hammered into position. Where adjustment of position is necessary care shall be taken to avoid premature compaction of the sand bedding.

5.6.4 INITIAL COMPACTION

After laying the paver block, they shall be compacted to achieve consolidation of the sand bedding and brought to design levels and profiles by not less than two (2) passes of a suitable plate compactor.

The compactor shall be a high-frequency, low amplitude mechanical flat plate vibrator having plate area sufficient to cover a minimum of twelve paving units.

Prior to compaction all debris shall be removed from the surface. Compaction shall proceed as closely as possible following laying and prior to any traffic. Compaction shall not, however, be attempted within one meter of the laying face. Compaction shall continue until lipping has been eliminated between adjoining units. Joints shall then be filled and recompactd as described in Clause 6.5

All work further than one meter from the laying face shall be left fully compacted at the completion of each day's laying.

Any blocks that are structurally damaged prior to or during compaction shall be immediately removed and replaced.

Sufficient plate compactors shall be available at the paving site for both bedding compaction and joint filling.

5.6.5 JOINT FILLING AND FINAL COMPACTION

As soon as practical after compaction and in any case prior to the termination of work on that day and prior to the acceptance of any traffic, sand for joint filling shall be spread over the pavement.

Joint sand shall pass a 2.36mm (No. 8) sieve and shall be free of soluble salts or contaminants likely to cause efflorescence. The same shall comply with the following grading limits:

IS SIEVE SIZE	% PASSING
2.36mm	100
1.8mm	90-100
600mm	60-90
300 microns	30-60
150 microns	15-30
75 microns	10-20

The Contractor shall supply a sample of the jointing sand to be used in the contract prior to delivering any such material to site for incorporation into the works. Certificates of test results issued by a recognised testing laboratory confirming that the sand sample conforms to the requirements of this specification shall be submitted prior to supply of total volume required.

The jointing sand shall be broomed to fill the joints. Excess sand shall then be removed from the pavement surface and the jointing sand shall be compacted with not less than one (1) pass of the plate vibrator and joints refilled with sand to full depth. This procedure shall be repeated until all joints are completely filled with sand. No traffic shall be permitted to use the pavement until all joints have been completely filled with sand and compacted.

Both the sand and paver block shall be dry when sand is spread and broomed into the joints to prevent premature setting of the sand.

The difference in level (lipping) between adjacent units shall not exceed 3mm with not more than 1% in any 3m X 3m area exceeding 2mm. Pavement portions which are deformed beyond above limits after final compaction, shall be taken out and relaid to the satisfaction of the Engineer in charge.

5.6.6 UNIFORM INTERLOCKING SPACES

The pavers should have uniform interlocking space of 2mm to 3mm to ensure compacted sand filling after vibration on the paver surface.

5.6.7 SKILLED LABOUR

Skilled labour should be employed for laying blocks to ensure line and level of pavers, desired shape of the surface and adequate compaction of the sand in the joints.

The rubber mold C C Precast interlocking paving block of approved quality 80 mm thickness, Grey Color and of M-40 And/Or M-30 Grade with concreting 1:2:4 and design shall be supplied by RMC. The bedding of black stone sand of interlocking block shall be done and the interlocking block shall be fixed hard on it in line and level. The contractor shall have to purchase the block of ISI Mark from the market and same shall have to be got approved from Rajkot Municipal Corporation.

The rate for this work shall be paid on one square meter basis.

Item No.12:

Fixing of CC Precast Road Divider stone 0.30 x 0.20 x 0.06 m including required material and labour (without colour)

If Rajkot Municipal Corporation will provide cement concrete blocks prepared at Departmental Production Unit of Rajkot Municipal Corporation as per specified rate then Above CC Block is to be collected by the agency at their cost and transport it to the required site. No transportation will be paid. If Divider Block is not available in RMC Production Unit then the contractor shall have to purchase the same from the market. Required excavation work shall be carried out by the agency on the paver road or conventional asphalt road as per depth and width as directed by Site Engineer. No extra payment will be made. The excavated stuff shall be disposed off as directed by the site incharge. Lime mortar of 1 part lime and 4 part of sand shall be well mixed and laid in minimum 50 mm thickness and C C precast rubber mould blocks shall be laid as per proper alignment keeping in mind the projection of tiles laying bed in the inner side of the block. Cement mortar of 1:6 is required to be used for 18 mm vatta and aesthetic groove shall be made as directed between the two blocks with proper vatta along with cement paste with required tamping etc complete as directed by Site Engineer. Minimum 75 mm x 75 mm triangular shaped lodhiya shall be casted with 1:2:4 cement concrete on both outer side of the block. The portion between the two blocks below the tile flooring level shall be filled with quality hard murrum and shall be watered for achieving proper compaction as directed and shall be tampered properly.

If Cement concrete blocks shall be purchased from Corporation Departmental Production Unit by deduction from bill amount. If the material is supplied from RMC Store, Rajkot Municipal Corporation will be deduct the amount for such supply as per the current S.O.R. rate of Rajkot Municipal Corporation. Excavated stuff shall be removed and spread within 90m lead as directed and no extra cost will be given.

The required stone shall either be supplied by Store or if required, as and when it is to be purchased from market shall be got approved from RMC. The stone shall be of good in quality if it is purchased from market and of sharpened edge and of sufficient crushing strength as per I.S. The testing shall be carried out at the cost of the bidder

Mode of measurement shall be as per unit of one number.

Item No.13:**Painting of Traffic Strip Footpath / Circle & divider block size 0.38 x 0.30 x 0.30 in two coats using enamel paint in different colors**

In this work the color work to road divider blocks except flooring including top the portion outside the road (from ground) is to be carried out with the oil paint of approved quality. The shade of various colors shall be used as approved by the engineer-in-charge. The work is to be carried out as per the instructions of engineer-in-charge.

For this color work, first of all primer is to be applied to old road divider blocks thereafter one coat is to be applied for whole work and shall have to be got checked from the engineer-in-charge and thereafter only the second coat is to be applied. The liquid between the two colors shall be done with due care and in line level.

The rate for this work shall be for running meter basis.

Item No.14 and 17:**Providing, lowering, laying, and jointing R.C.C. pipes (Socket spigot with Rubber Ring) NP-3 class, conforming to ISI, for storm water drain with Spigot joints including all taxes, insurances, transportation, freight, charges, octroi, inspection charges, loading, unloading, conveyance, stacking, etc complete (IS : 458- 2003) – 300 mm and 450 mm dia****Sight Rails and Boning Staves:**

In laying the pipe sewers and constructing drains, center for each manhole must be marked by a peg. Or Otherwise as may be determined by the Engineer-in- charge. The contractor shall then dig holes and set up two posts (about 100mm X 1800mm) at each manhole at nearly equal distance from the center of the manhole. The distance shall be such that they shall be well clear of all intended excavation. They shall be so arranged that a sight-rail when fixed level against the posts will cross the center of the manhole. The posts shall also be so set up that the longitudinal direction of the rail may be as clear as possible to the direction of any of the lines pipes or drains converging to the manhole. If walls of buildings afford suitable means of fixing the sight-rail the post may be dispensed with. The sight-rail, must not in any case be more than 30 M apart. If intermediate rails between two manholes be found necessary, the same shall be put up.

Construction of boning staves:

Boning staves shall be prepared by the Contractor about 75mm X 50mm of various lengths, each length being of a certain number of meter and with a fixed tee-head and fixed intermediate cross piece, each about 300mm long. The top-edge of the cross piece must be fixed at a distance below the top-edge of this tee-head, equal to the outside diameter of the pipe or the thickness of the concrete bed to be laid. The boning staff must be marked on both sides to indicate its full length. According to the requirements of each case, a suitable length of boning staff will be fixed and the reduced level of

the bed of the pipe or bottom of concrete of drain at each sight-rail place added to the selected length of boning staff, and marked by a horizontal line in both posts, or on walls or fences to which the sight-rail is to be fixed.

Sight Rails:

The sight rails (about 25 mm wide and 40 mm thick) are to be screwed with the top-edge against the level marks. The center line of the pipe sewer or the drain will be marked on the rail and this mark will denote also the meeting point of the center of any converging drains or pipe sewers. Line drawn from the top-edge on rail to the top-edge of the next will be vertically parallel with the bed of the sewer or drain at any intermediate point. This could be easily determined by letting down the selected boning staff until the tee-head comes in the line of sight from rail to rail. The posts and rail are to be perfectly square and planned smooth on all sides and edges. The rails are to be painted white on both sides, and the teak-hands and cross pieces of the boning staves are to be painted black. If the pipes or drains converging to a manhole come at different level there must be a rail fixed for every different level. When rail comes within 1.6 M of the surface of the ground a higher sight-rail shall be fixed for use with the rail over the next point. Posts and rails shall in no case be removed until the trench is excavated. The drains are constructed, the pipes are laid and permission given to proceed with the filling in.

LOWERING LAYING AND JOINTING OF PIPES:

Contractor to obtain permission before laying pipe, concrete or Construction of masonry:

When any portion of the excavation shall have been carried out to the necessary depth, the contractor shall obtain permission in the Engineer-in-charge before commencing the work of laying of pipes or concrete or the construction of masonry. No sewer pipe shall be allowed to be laid over and parallel to the water supply pipeline. Sewer line shall be laid below the water supply pipeline irrespective of the size of the pipeline.

Handling of pipes:

At every point of loading or unloading, pipes or fittings shall be handled by approved lifting tackle. Unloading by rolling down planks or any other form of inclined ramp shall not be allowed unless the written approval of the Engineer-in-charge is obtained regarding the same. Pipes shall be carefully stacked on site with timber packing under and between the pipes without causing nuisance or obstructions to traffic of walkway.

Laying:

The pipes shall be laid up the gradient beginning at the lowest end. No pipe shall be laid until the trench has been excavated to its required depth for a distance of 20 M in front of the pipe to be laid (This distance may vary as directed by the Engineer-in-charge). All the pipes shall be laid perfectly true, both in line and in gradient.

The pipes in a trench shall be all laid and fitted previous to the jointing being commenced properly fitted temporary wooden stoppers shall be provided and constantly added to close the ends of all in-completed pipelines. The stoppers are to be removed only when pipes are laid and jointed.

Jointing of stoneware glazed with Socket and Spigot Joints:

The laying and jointing of pipes shall conform to IS : 4127 (1967) The pipes shall have socket and spigot joints. The trench shall be checked for proper level, gradient and alignment before lowering the pipes. The laying of the pipes shall properly upgrade of slopes. The socket end shall always be facing the up-stream end of the trench.

All joints shall be filled up with hemp yarn dipped in sufficient quantity of cement slurry, cement mortar 1:1 shall be forced into joint by using cocking tools etc as directed by Engineer-In-Charge until the whole space around the spigot between it and the socket is full so as to form a neat fillet round the pipe.

The cement mortar joints shall be cured at least for seven days.

Jointing of RCC pipe with Socket and Spigot Joints:

The RCC pipe with the rubber ring accurately positioned on the spigot shall be pushed well home into the socket of the previously laid pipe by means of uniformly applied pressure with the aid of a jack or similar appliance. The RCC pipes shall be of spigot and socket type and rubber rings as specified in IS-458-2003, shall be used, and the manufacturer's instructions shall be deemed to form a part of these specifications. The rubber rings shall be lubricated before making the joint and the lubricant shall be soft soap water or an approved lubricant supplied by the manufacturer.

Socket & Spigot NP3 & NP4 pipe with rubber ring roll on joint for diameter upto 900 mm should be provided as per table 14 of IS 458: 2003. Socket & spigot NP3 & NP4 pipe with rubber ring confined joint for diameter 1000mm to 2600 mm should be provided as per Table - 17 of IS 458:2003.

All works to be Water Tight:

The drains, manholes and all joints of pipes shall be made thoroughly sound and water tight and any joint which may be observed to be leaky at any time during the progress of the works or during the contractor's subsequent period of maintenance shall be immediately made good by the contractor at his own cost. The contractor at his own cost shall have to carry out satisfactory flow test as directed by the Engineer-In-Charge. In case of any dispute in this regard, the decision of Engineer-In-Charge shall be final and binding to the contractor.

Inspection of joints:

After the joints of any pipes in under ground work have thoroughly set the Engineer-in-charge (or any person whom he may appoint) may inspect the joints and if he has any doubt as to their soundness he may request the contractor to open out and clean the cement. Contractor shall not be required to open more than one joint in 20 M of pipe. However, if the defect is found, the Engineer-in-charge may direct him to open as many joints as he may deem necessary.

Cleansing of the pipes:

As soon as a stretch of pipeline whether of stoneware or cast iron or RCC

pipes has been completed between two manhole, the contractor shall run through the pipes both backwards and forwards a double disc / solid / closed cylinder 75mm less in dia, than the internal dia of the pipes wherever required and suggested by the Engineer-In- Charge. The open end should be closed as may be directed by the Engineer-in-charge to prevent, entry of mud or silt etc. If as a result of the removal of any obstruction in the pipe line the Engineer-in- charge considers that damages may have been caused to the pipeline, he shall be competent to order the length to be tested at the expense of the contractor. Should such retest prove unsatisfactory the Contractor shall at his own expense amend the work and carry out such further tests as may be required by the Engineer- in-charge. It shall also be ascertained by the Contractor that each stretch from manhole to manhole is absolutely clean and without any obstruction by means of visual examination of the interior of the pipeline suitable illuminated by projecting sunlight or artificial light.

Cracks in Pipes:

In the event of pipes being cracked after being properly laid either due to improper loads having been encountered or the material of refilling having been improperly selected or because of any other cause, the Contractor in every case shall be held responsible and will be called upon to replace such cracked pipes at his own cost during the expiration of period of maintenance.

Any pipe or length of pipes found to be defective shall be immediately removed and replaced at the Contractor's expense and leaking joints shall be remade. The inspections and tests shall then be repeated as often as necessary until the whole line under inspection or tests is accepted by the Engineer-in-charge.

All works to be clear, clean and perfect:

The contractor shall after completion or whenever required by the Engineer-in-charge, prove all pipes and fittings to be clear and perfect, for this purpose he shall at his own expense and in the presence of the Engineer-in- charge or his appointee, provide suitable instruments and appliances and pass them through the pipes and if required shall pass water and show that it passes freely through every portion of the work. Brick mortar and rubbish shall not be allowed to fall into the manholes of sewer lines while fixing or if fallen shall be removed by the Contractor at his own expense.

Pipe entering and leaving manholes:

Whenever a pipe enters or leaves manhole, the ends of all pipes shall be properly built-in and neatly finished with cement mortar. The pipe projections are to be cut so that the ends are flush with plastered surface of the manhole, nothing extra shall be paid for this. The rate of pipe laying include this work also.

Fittings:

The terms fittings as used in this specification is intended to apply to any and every article used in combination with straight pipe itself. In the areas subject to subsidence, the pipe sewer should be laid on suitable supports or concrete cradle supported on piles.

Measurement of pipe lines:

- (a) All pipelines shall be measured according to the work actually done and no allowance shall be made for sockets and any wastage in cutting to the exact length required. A bend, junction, or any other piece of fitting which may have necessarily been out for the exigencies of the work will be taken into account as if whole, provided that the cutting has been done properly and that portion used in the work is sound. This clause shall not apply to a straight pipe under any circumstances. In measuring the lengths of pipes laid, deductions shall be made for the lengths of channels between the inside faces of the walls of manholes.
- (b) Payment for providing, supplying, lowering, laying, jointing and testing of R.C.C. and SWG pipes shall only be made after laying & Backfilling for the same as under:
 - (i) 90% payment of this item shall be paid after lowering, laying and jointing pipes as per specifications.
 - (ii) Remaining 10% payment shall be paid after satisfactory flow test.
- (c) For providing, lowering, Laying, jointing and testing work, payment shall be made only for completed section between manhole to manhole. No payment shall be made for incomplete sections.

The rate shall be for a unit of one running meter basis.

Item No.15, 18 and 19:

Manhole 0.90m/0.60m size 1.20m deep with exavation cement concrete 1:2:4 brick meassonary 1:6 0.30mm thick, foundation cement plaster 1:3, benching 50mm thick, IPS 1:2:4, top 15cm thick CC coping 1:2:4 with quaring finishing (without cover plate)

And

Making of A type mh

And

Making of B type mh

The said drainage manhole as per drainage type design is to carried out in brick masonry in CM 1:4 and CC in foundation in 1:3:6 including bedding, benching in 1:2:4 and the inside plaster work in niru finishing in CM 1:3 as per drainage drawing is to be carried out whereas the outer plaster in CM 1:3 is to be done with necessary fixing of HDPE reinforced plastic steps of size 385 x 165 x 0.25 mm as per given type design is to be done. Precast RCC manhole frame and cover is to be done 1:1.5:3 by filling coping and fixing work. The work shall be such that there shall not be no leakage in the manhole, in which, the rate for excavation shall be paid separately which is not included the prescribed rate. The frame and cover shall be provided by RMC Store and same shall have to be transported from Store to Site at the cost of contractor and fixing

work is to be carried out accordingly, for which, the rate for only fixing work shall be paid.

The rate for manhole shall be for one number in which, the rate for frame and cover shall be paid separately where for additional depth, the rate shall be paid on one running meter basis as shown in Schedule of this tender.

THE MANHOLE AND DEPTH OF MANHOLES :-

The manholes on the sewers shall be constructed in the form and of the dimensions shown in the Drawing. The depth of the manholes shall be measured from the top of cover to the invert level of the manhole.

The manholes shall be constructed at places shown on the drawings or whatever directed by the Engineer. Type designs for these manholes are shown on the drawings but the actual type and dimensions shall in each case be determined by the Engineer as the circumstances may require. (Refer drawing No. R.M.C.- DRN - PHASE-III - 01 to 09)

CONSTRUCTION OF BRICK MASONRY MANHOLES :

The brick masonry shall be constructed as per the type design shown in the drawing enclosed. The various types of manholes to be adopted as per the requirement have been indicated in the L-section and sewer layout drawing in general. The manhole will be fitted with R.C.C. pre-cast medium or heavy duty manhole frame and cover as the case may be. The brick masonry manhole shall be plastered from inside and outside as shown in the drawing and as shown CM proportion and thickness.

FLOORS AND 0.80 ID CHANNEL PIPES :

The floor shall consist of cement concrete. Concrete of R.C. 0.80 ID channel pipes of the required size and curves shall be laid and bedded in cement on the concrete base to the same lines and fall as sewers unless otherwise directed. Both sides of the channel pipes shall be trenched up in concrete and rendered in cement mortar 20 mm thick and formed to a slope of not less than 1 in 12 to the channel.

STEPS :

Where the depth of the invert exceeds 0.90 M below the surface of the ground, HDPE reinforced steps of approved pattern shall be provided as per type design shown in manhole drawings.

RATE OF MANHOLES :

The rate for construction of manhole to be quoted in the bill of quantities shall include complete masonry, structure, concrete cap, plastering with cement from inside and outside, bottom concrete or channels including providing and fixing of HDPE reinforced steps and fixing of R.C.C. manhole frame & covers complete as per type design drawing and cutting the pipes flush with the inside plaster of the wall. The manholes will be paid per numbers up to the minimum depth shown in the type design and for depth beyond the specified minimum depth for a particular type of manhole, extra will be paid per running meter depth. The rates includes dewatering during all stages of construction.

The brick masonry will be paid per number excluding excavation but including

masonry, bottom concrete, plastering, benching channel fixing of RCC frame and covers. (Refer R.M.C. DRG for H.C.1, H.C.2)

The rate for Item No.15, 18 and 19 shall be for a unit of one number.

Item No.16 and 20:

RCC Precast frame with supply, fitting, fixing with complete as per specification 10 Ton size 1000/700/90mm.(with beam) + Cover 10 Ton size 1000/700/90mm.

And

Precast RCC Circular Frame and cover of 20 Tonne capacity round of 600 mm dia.

SHAPES AND DIMENSIONS

Shapes

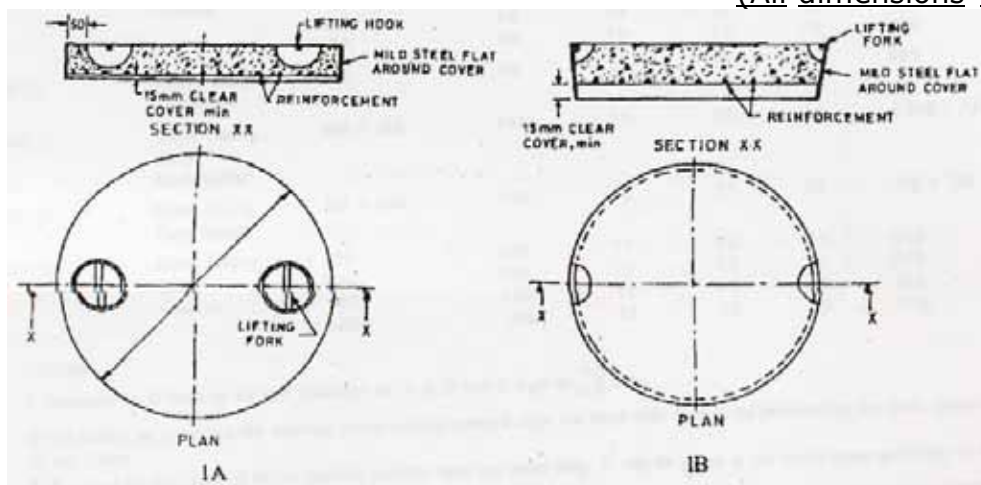
The percent concrete manhole covers and frames shall be of any shape given.

Dimensions And Tolerances

The dimensions and tolerances on dimensions of frames shall be as shown in Table-1 but outside dimensions of cover at top shall match with the corresponding frame so that the maximum clearance at bottom between the frame and the cover all round the periphery is not more than 5 mm and the top surface of the frame and cover is in level within a tolerance of ± 5 mm.

For facility of removing the cover from the frame, suitable taper matching with taper given for the frame shall be provided to the periphery of the cover (See Fig.1).

Fig.1 - Typical Illustration of Circular Precast Concrete Manhole Cover
(All dimensions in millimeters)



12.0

DESIGN:

The reinforced concrete manhole cover and frame shall be designed in accordance with the provisions of IS 456. If required by the purchaser, the manufacturer shall furnish the specification and drawings principle given in IS 456 may be followed.

MD-10	Medium Duty Circular	500	70	50	50	50	620
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LIFTING HOOKS:

The minimum diameter of mild steel rod used as lifting device shall be 12 mm for light and medium duty covers and 16 mm for heavy and extra heavy duty covers. The lifting device shall be protected from corrosion by hot dip galvanizing or any other suitable means approved by the purchaser or shall be made of naturally corrosion resistant metal rods.

The lifting arrangement shall be as agreed between the manufacturer and the purchaser. Typical arrangements of lifting devices are shown in Fig.1A and 1B.

PHYSICAL REQUIREMENTS: General

All the covers and frames shall be sound and free from cracks and other defects which interferes with the proper placing of the unit or impair the strength or performance of

the units. Minor chippings resulting from the customary method of handling and transportation shall not be deemed ground for rejection.

Dimensions

The dimensions of the cover and frame shall be as specified in 11.0; the overall dimensions of the units shall be measured in accordance with Annexure-B.

Load Test

The breaking load of individual units when tested in accordance with the method described in Annex-C shall be not less than the values specified in Table-2. Also, the permanent set shall not exceed the requirement given in Annexure-C.

**Table-2 - Test Load and Diameter of Block
(Clause 15.3, 18.3 and C.1.1)**

Grade of Cover	Type	Load kN	Diameter of Block mm
1	2	3	4
MD-10	Rectangular, or Circular	100	300

The rate shall be for a unit of one cover and one frame each number.

Item No.21:

Rolling and consolidation water bound macadam (except latrite and kankar) excluding watering, not exceeding 150 mm thickness main layer including binding material including filling in depression which occur during the process (B) with roller 8 tonne and not exceeding 12

tonne.

Immediately following the spreading of the coarse aggregates rolling shall be started with three wheeled roller of 8 to 10 ton capacity. The rolling and without watering includes of work for two separate layer of metaling.

Except on super elevated portions where the rolling shall proceed from inner edge to outer, rolling shall from the edges gradually progressing towards the center. First the edges shall be compacted with roller running forward and backward. The roller shall then move inwards parallel to center line of the road in successive passes uniformly lapping preceding tracks by at least one half the width. The total work includes four times of rolling in two layers of metalling.

Rolling shall continue until the aggregate is thoroughly keyed and creeping of the aggregate ahead of the roller is no longer visible.

The rolled surface shall be checked transversely and longitudinally with templates and any irregularities corrected by loosening the surface, adding or removing necessary amount of aggregate and rolling until the entire surface conforms to desired camber and grade.

The bondage material where it is to be used shall be applied successively in two or more than layers of a slow and uniform rate after each application, ~~the surface shall be copiously sprinkled with water, which water shall be applied to the wheels of rollers if necessary to wash down the binding material sticking to them.~~ These operations shall continue until the resulting slurry after filling of voids forms a wave ahead of the moving roller.

After the final compaction of water bound macadam course, the road shall be allowed to dry overnight. Next morning hungry spots shall be filled with screenings of binding materials as directed lightly sprinkled with water if necessary and rolled.

Payment will be made at per square meter basis of the finished work for single layer and shall include water, rent of machinery, cost of fuel, wages of drivers and cleaners and murrum bund etc. for both.

Asst.Engineer
Rajkot Muni. Corporation

Dy.Ex.Engineer
Rajkot Muni. Corporation

CITY ENGINEER (SPECIAL)
Rajkot Muni. Corporation

Signature of Contractor:

ADDITIONAL CONDITIONS

1. The contractor shall have to provide his own level instrument for this work.
2. Work is required to be carried out in residential / outside area where all the services like water supply, sullage water pipeline, telephone / electric cable are existing. Under the circumstances, prior to starting the work agency shall have to excavate manually wherever for metalling. During the course of execution, all the services shall have to be maintained by the agency and any damage to any services or property, the agency shall have to get it repair at their cost.
3. While the work in progress, there is possibility of change in location according to the conditions. Under these circumstances, the contractor shall have to carry out the work accordingly, for which, no extra payment shall be made in such situations. Over and above, the decision of Engineer-in-charge for change shall be final and binding to the contractor.
4. The quantity of various items mentioned in the schedule-B is liable to increase or decrease. Under the circumstances, the contractor shall have to carry out the work accordingly. Rajkot Municipal Corporation will not entertain any dispute in this regard for any such variable quantities of any amount.
5. In case of any ambiguity found in inspections / drawings, specifications, etc, the decision of engineer-in-charge shall be final and binding to the contractor.
6. Rates quoted in Bill of Quantities to cover everything necessary for complete Execution of work :

The rates quoted will be held to cover everything necessary of the due and complete execution of the work according to the drawings and the several conditions and the stipulations of the contract, including specification, or the evident intent and meaning of all or either of them or according to customary usage and for the periodical and final inspection and test and proof of the work in every respect and for measuring, numbering or weighing the same including setting out and laying or fixing in position and the provision of all materials,

Power, tool rammers, beaters, labour, tackle platforms with impervious lapped joints for scaffolding ranging rods, straight edges, centering and boxes, wedges, moulds, templates, post straight rails, boning-staves, measuring rods, page boards, shores, barriers, fencing, lighting, pumping apparatus, temporary arrangements of passage of traffic, access to premises and continuance of drainage, water supply and lighting (if interrupted by the work) lard temporary sheds and buildings nahanis roofed in or otherwise haulage, painting, varnishing, polishing, establishments for efficient supervision and watching arrangements for the efficient protection of life and property and all requisite plant, implements and appliances every kind, except only such matter and things as it may be distinctly stated here in are to be supplied by the contractors. A rate for anyone description of work is to be held to include such items of other classes of and for these on separate specific

charge will be admitted. The contractors shall keep every portion of the work clear of accumulation from time to time and shall leave every portion of the work clean, clear, perfect and at the conclusion of whole, providing at their own cost all such material implement appliances and labour as the Engineer may require to prove if it is to be so.

7. The contractors are particularly directed to observe from the Articles of Agreement and the specifications, what is to be included in their rates for the several portions of the work and also under what conditions payments are to be made.
8. **No extra payment will be made by Rajkot Municipal Corporation for the design to be submitted by contractor, which is to be prepared by License Holder Structural Engineer / Government / Authorized Laboratory.**
9. The contractor shall have to avail P F Code as per the prevailing Circular of Government for the employees on work. The process for preparation of bill will be taken up only after submission of the Challan for the amount of P.F. deposited every month for the employees on work, which will binding to the contractor. The required documents shall have to be submitted every month by the contractor to the competent authority.
10. The contractor shall have to get registered under ESI (Employer's State Insurance) Act and obtain ESI Registration number if the number of workers are 10 Nos. or more. Also, the agency shall have to give all the benefits to the workers as available under the ESI Act. The agency should follow all the rules and regulations of ESI Act as per prevailing norms.
11. **This office Circular bearing No.RMC/C/329 dated 22-12-2012 and Order No.RMC/C/132 dated 10-06-2013 are uploaded separately as a part of tender document.**
12. In reference to the above Circular and Order cited para above, the Contractors/Consultant who have quoted their rates for this work will be called in person for verification of original documents. The date and time for verification of original documents will be as prescribed in the tender document.
13. After issuance of work order for this tender, if the land for work falls under any kind of dispute then Rajkot Municipal Corporation reserves the right to terminate the contract for this work awarded to the contractor or execute part work. The decision of Rajkot Municipal Corporation in this regard will be final and binding to the contractor.
14. After issue of the work order for this tender, If the work is to be executed on Government land and if such land falls under any kind of dispute then Rajkot Municipal Corporation reserves the right to terminate the contract for this work awarded to the contractor and the decision of Rajkot Municipal Corporation will be final and binding to the contractor.
15. Till the Completion Certificate is issued by Rajkot Municipal Corporation, the agency will be the sole responsible for security of material and structure at site.

16. **The quantities given in the Schedules are provisional. The Rajkot Municipal Corporation reserves the right to increase or decrease the quantity of work or totally omit any item work and the contractor shall not be entitled to claim any extras or damages on the said grounds & he is bound to execute the work as per the instruction of the Engineer-in-charge.**
17. It is further clarified that Performance Guarantee (SD) for extra work will also be recovered @ 10% from the bill of extra work i.e. works beyond tender amount.
18. The bidder must understand clearly that the prices quoted are for the totally works or the part of the total works quoted for and include all costs due to materials, labour, equipments, supervision, other services, and survey and levels and section charts etc., royalties, taxes, duties, etc., and to include all extra to cover the cost. No claim for additional payment beyond the prices quoted will be entertained and the bidder will not be entitled subsequently to make any claim on any ground.
19. Plant must be located within 40 kms from Rajkot city or Agency should establish the Plant within 40 kms from Rajkot city in 15 days after receiving letter of acceptance of the bid.
20. **Bidder must have two (2) numbers of vibratory rollers on site at the time of execution.**
21. Qualified engineer must be deployed on site and at Plant. The details of qualified engineers are to be given to RMC at the time of bidding of this tender.
22. The whole work shall be executed by qualified Site Engineer. The required L-Section and Cross section is to be prepared by contractor at his own cost. The work should be done by leveling instrument. The Drawings shall be submitted accordingly in advance before starting the work. No extra payment will be made for the above work. Contractor has to submit hard copy and soft copy of cross section and L-section of work completed as per requirement.
23. The agency to whom the work will be awarded shall have to arrange its own vehicle for to and fro transportation of the staff of Rajkot Municipal Corporation till the work is completed at his own cost.
24. If any sample tested at plant fails in bitumen extraction test, then the whole mix will be rejected and this mix will not be allowed to deliver on site.
25. **Below mentioned basic rate (excluding GST) as on dt.01/08/2022 for bitumen is to be considered for the execution of this work:**

Sr.	Item	Rate (Rs.)
1	VG-30	45,592/-
2	VG-40	48,612/-

The Star Rate obtained from any other source will not be acceptable. It is mandatory to quote rates for "Star Rate" as per tender document. Imported Bitumen will not be allowed to use in any circumstances.

26. Conditions for variation in rates of asphalt:
 1. This clause shall be operative from the date of issue of work order and up to the expiry of original and extended time limit.
 2. The difference between two actual rate of purchase as per original bill produced and the basic rate for the quantity of asphalt actually used in the work during original or extended time limit only will be paid/ recovered for ACTUAL use of asphalt.
 3. The difference will be payable / recoverable from the date of issue of work order and this price variation will not be subject to any ceiling.
 4. If any delay is caused handing over sites to contractor, due to excavation for providing any utilities or for any other reason, no extra payment or claim or price rise shall be paid to contractor except price variation of basic rate mentioned in the tender.
27. If any irregularities found during laying / after laying of bitumen construction then penalty will be imposed by Engineer-in-charge or any higher officer. If any dispute arises regarding penalty imposed by Engineer-in-charge then the decision of Municipal Commissioner will be final and binding to the agency.
28. For cleaning work in resurfacing & recarpeting; no extra payment will be paid. Where cleaning through mechanical broom is not possible; cleaning should be done as per instructions of engineer-in-charge.
29. **The time limit will remain same as mentioned in the tender document and the work is to be completed accordingly. Monsoon period will be treated as Non-working period from 1st July to 30th September will be excluded from time limit**
30. Tender of such Contractor not having registration in appropriate Class and Category, will be treated as non-responsive. In case of any conflicting provisions between registration of appropriate category and Pre-qualification criteria, the later shall govern the process of bid evaluation.
31. The agency shall have to quote their rates only after visiting the site and looking to the site conditions.
32. **DEFECTS: Date of completion for start of defect liability period for a particular road will be considered as the last date mentioned in the completion of work recorded in Measurement Book. The contractor shall be required to make good all the damages/ defects identified and conveyed to him, during the entire defect liability period of five years. The method and time limit of rectification will be decided by the Engineer in charge. If the contractor fails to carry out rectification as per the instructions, the same will be carried out at his cost and the cost will be recovered from the amount retained.**
33. RMC intends to give single work to the agency. But looking to the availability

of bidder & capability of the bidder, RMC may award more than one work. Decision of Municipal Commissioner will remain final in this regard.

34. After laying of Mix Material the field density test must be taken as per MORT&H Specification.
35. The work of laying aggregates mixed with bitumen shall generally start on site of work of only after 8:00 a.m. and shall continue upto 06:00 p.m. hours in winter season and upto 07:30 p.m. hours in summer. However, under Special Circumstances Engineer-in-Charge may ask to carry out work in the Night hours also. No work shall be done except during the period mentioned above and also on Sundays and National Holidays Viz. 26th January, 15th August and 2nd October. As per Government Circular No.SHR/1087/205/(121)/C dt.24/05/1990. The work of laying bituminous surface shall not be carried out after **1st July** (during monsoon period) or onset of monsoon.
36. **Preferably the thickness of structural member i.e. base coat, DBM, etc. and varying coat i.e. SDBC, Seal Coat, etc. should be as specified in tender document / Schedule-B or as per Abstract and Measurement Sheet. But it should not exceed 15% of specified thickness. The excess material laid will be paid at the rate of 70% of that particular item material. Agency has to submit bills with calculations of material consumed in tonnage alongwith thickness and area of paver laid. The agency must stick to the specification and thickness of Basecoat as well as Seal Coat. No extra payment will be made beyond average thickness i.e. excess material laid on site.**
37. The Contractor shall invariably get the job mix formula for the mix approved by the Engineer-in-charge or by TPI agency where applicable before starting of the work and when instructed by engineer-in-charge.
38. GPS tracking system must be installed on every vehicle deployed for transportation of bituminous material. The system should be accessible from RMC office.
39. Camera at plant site should be installed and access to it should be made to RMC. If internet is not accessible at plant site, sincere efforts are to be made for same.
40. Joint venture shall not be allowed under this tender.
41. **During Defect Liability Period, Joint Inspection by agency and concerned staff of RMC will be carried out at every six months interval from the date of the completion of the work and a joint status report for the work inspected must be submitted by the agency.**
42. **If required, the existing road shall have to be widened on both the sides and then the carpeting work shall have to be taken up. The work of road widening is to be carried out in phase manner without disturbing the traffic as per the instructions of engineer in charge. Keeping in mind the use of existing road, all safety measures shall have to be taken.**

43. The site requirement after leveling survey is submitted by the agency. It should be accordingly laid as per instructions of engineer in charge.
44. **The Agency shall have to submit the road thickness crust design based on CBR value done by any Government approved Laboratory before starting the work in case of new road, if required.**
45. The agency to whom the work will be awarded shall have to arrange its own vehicle for to and fro transportation of the staff of Rajkot Municipal Corporation till the work is completed at his own cost. Also, a vehicle / Car shall have to be arranged for site Engineers also.
46. **Tack coat must be sprayed by multi nozzle equipment at uniform rate. A measuring plate will be placed at specific interval to determine the quantity of tack coat used per square meter and payment will be made accordingly. Also, agency has to provide accurate electronic weighing machine having tolerance limit of 1 gm at site.**
47. **If sample falls within lower tolerance limit, proportionate amount for quantity of bitumen will be deducted and if sample fails then the payment for the truck load will not be given.**
48. **The Defect Liability period for this work is 5 (Five) Years. After completion of work, a report at the interval of every six months by way of joint inspection shall have to be submitted to the competent authority. The road which is observed defective / damaged by normal cause during the joint inspection shall have to be repaired / rectified and necessary evidence along with photographs shall also have to be submitted to the competent authority.**
49. **Penalty will be imposed in following manner if the less amount of tack coat spray is observed during the work:**

Sr.	For spraying less amount of tack coat	Penalty
1	Upto 1 Kg	Rs.10/- per Sq.Mt.
2	1 Kg to 2 Kg	Rs.20/- per Sq.Mt.
3	Above 2 Kg	Rs.25/- per Sq.Mt.

50. **For this project works / SJMMSVY Grant / 14th & 15th Finance Commission works, Third Party Inspection (TPI) is mandatory. The TPI agency will be appointed by Rajkot Municipal Corporation and remittance of charges @ 0.70% of contract value for the same is to be borne by the agency, which will be deducted from the contractor's bill.**
51. Rajkot Municipal Corporation at its discretion employs services of PMC / Third party inspection agency for quality control. The contractor shall fulfill the entire requirement related to quality control as instructed by TPI / RMC at no extra cost.
52. **If engineer-in-charge instructs the contracting agency to carry out metal patch work and to execute bituminous patch work then the contracting agency is bound to carry out the work. The decision of**

engineer-in-charge will be final and binding to the contracting agency.

53. The agency will have to take precautionary measures during the execution so that the valve chamber cannot clogged
54. RMC will make extra payment as per GC-70 if the use of plastic is to be taken into paver work.
55. If the GPS system is neither installed nor working in the vehicle then RMC will impose penalty of Rs.2000/- per day per trip.

The CCTV Cameras as required and instructed by the competent authority must be installed at plant and weigh bridge as directed by engineer in charge. If it is observed that the agency has not installed the cameras then penalty of Rs.10,000/- per day will be imposed by RMC.

56. The static roll / Vibratory roll can be used in carrying out the bitumen patch work and the metalling patch work as per the instructions of site engineer.
57. Single nozzle sprayer is permitted only where usage of browser is not feasible.
58. Agency must submit their original Gate Pass with Bill for asphalt. The Agency has to maintain the asphalt Stock Register on Paver Plant site. Bills represented without Gate Pass will not be processed by Rajkot Municipal Corporation.
59. Agency shall have to do the demarcation from the total station survey as well as by marking the level at the interval of appropriate distance and carry out the work as per requirement.
60. Bill for this work for each item will be prepared after taking measurement of through total station. Contractor will have to manage of taking measurement through total station for each item whichever required.
61. **The restoration work for the excavation done is to be carried out immediately as per the instructions of engineer in charge. The excess material shall have to be disposed with no extra cost at the site specified by engineer-in-charge.**

Asst.Engineer
Rajkot Muni. Corporation

Dy.Ex.Engineer
Rajkot Muni. Corporation

CITY ENGINEER (SPECIAL)
Rajkot Muni. Corporation

Signature of Contractor

Bidders are required to fill up all blank spaces in this Bid Form

The Commissioner
Rajkot Municipal Corporation
Dr. Ambedkar Bhavan
Dhebar Road
Rajkot

Dear Sir,

SUB : **DEVELOPMENT OF 24.0 MTR PAAL ROAD IN WARD NO.11
(RETENDER)**

Having visited the site and examined the Bid Documents, Drawings, Conditions of Contract, Specifications, Schedules, Annexures, Preamble to Price Schedules, Price Schedules etc. including Addenda/Amendments to the above, for the execution of the above Contract, we the undersigned offer to carry out as given in Conditions of Contract and in conformity with the Drawings, Conditions of Contract, Specifications, Preamble to Price Schedules, Price Schedules, Annexures, Bidding Documents, including Addenda Nos. (insert numbers) for _____ %age (in figure) _____ (in words) below / above than the rates given in Price Schedule.

2. I / We agree that

- (a) if we fail to provide required facilities to the Employer's representative or any other person/agency by the employer to perform on his behalf for carrying out the inspection and testing of materials and workmanship
- or
- (b) if we incorporate into the Works, materials before they are tested and approved by the Engineer's representative
- or
- if we fail to deliver raw water of required quantity according to the conditions/stipulations of the Contract, the Engineer will be at liberty to take any action including termination of Contract and impose at his absolute discretion any penalties, and/or reject the work.

- 3. We undertake, if our Bid is accepted, to complete and deliver the Works in accordance with the Contract within the prescribed time limit, from the date of Work order issued to us by you.
- 4. We agree to abide by this Bid for a period of 180 days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiry of that period.
- 5. In the event of our Bid being accepted, we agree to enter into a formal Contract Agreement with you incorporating the conditions of Contract thereto annexed but until such agreement is prepared this Bid together with your written acceptance thereof shall constitute a binding Contract between us.
- 6. We agree, if our Bid is accepted, to furnish Performance Bond/Security in

the forms and of value specified in the Conditions of Contract of a sum equivalent to 5% of the Contract price for due performance of the Contract.

7. We have independently considered the amounts of liquidated damages shown in Appendix to Bid and agree that they represent a fair estimate of the damages likely to be suffered by you in the event of the Work not being completed by us in time.
8. I/We agree to pay the CGST, SGST, Royalty, Labour Cess, Professional Tax and Other Taxes prevailing from time to time on such items on which the same leviable and the rates quoted by me/us are inclusive of the same.
9. We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this _____ day of _____ 2021.

(Signature)

(Name of the person)

(In the capacity of)
Company Seal

(Name of firm)

Duly authorized to sign Bid for and on behalf of
(Fill in block capitals)

Witness

Signature _____
Name _____
Address _____

PREAMBLE TO PRICE SCHEDULES

Note on Schedule

1. The bid is percentage rate bid.
2. The rates and prices shall be submitted in the formats given in the online Price Schedules. Rates and prices received in any other formats will be rejected and the Bids will be disqualified.
3. It will be entirely at the discretion of the Employer to accept or reject the bidder's proposal, without giving any reasons whatsoever.
4. In Price Schedule, bidder shall quote his percentage Equal/Above/Below for items listed in the schedule. Prices quoted in Schedule only will be considered for price evaluation & shall form a part of the Contract Agreement.
5. Only Price Schedule will be considered for financial evaluation of the bid with the successful bidder.
6. The bidder shall be deemed to have allowed in his price for provision, maintenance and final removal of all temporary works of whatsoever nature required for construction including temporary bunds, diverting water, pumping, dewatering etc. for the proper execution of works. The rates shall also be deemed to include any works and setting out that may be required to be carried out for laying out of all the works involved.
7. Where there is a discrepancy between the unit rates and the amount entered, the latter shall govern.
8. The Price Schedules are to be read in conjunction with the Conditions of Contract, the Specifications and other sections of these bid documents and these documents are to be taken as mutually explanatory of one another.
9. Prices quoted by the bidder shall be firm for the entire period of Contract without any escalation.
10. The bidder shall interpret the data furnished and carry out any additional survey work, or investigative work required at his own cost.
11. The prices quoted shall also include the cost of materials utilized for testing.
12. The bidder should acquaint himself with the site conditions including the access to Worksite. The successful bidder shall have to make suitable access to worksites at his own cost. These accesses will be used by the other contractors working for RMC.
13. The material shall be inspected Departmentally, the cost of which, if any, is to be borne by contractor.

- 14. In case of extra item work if quoted and approved tender price is above Percentage Rate then no above percentage rate will be given, only the rates as per S.O.R. will be paid for such extra item. But, if the quoted and approved tender price is below percentage rate then that below percentage rate will be considered for paying of any extra item**
- 15. No extra payment will be made for removal of all kind of excavated material.**

Asst.Engineer
Rajkot Muni. Corporation

Dy.Ex.Engineer
Rajkot Muni. Corporation

CITY ENGINEER (SPECIAL)
Rajkot Muni. Corporation

Signature of Contractor

**MORTH SPECIFICATIONS
(ATTACHED SEPERATELY)**

Special Conditions of Contract:

1. The contractor shall have to depute a qualified Engineer at site for full time till the completion of whole work. The said Engineer shall be experienced in these types of works. No extra payment will be made by Rajkot Municipal Corporation for this.
2. All required leveling shall have to be carried out by the contractor.
3. **The contractor shall have to provide Contour, all detailed drawings with layout, cross sections with technical details etc., to the competent authority first, which Rajkot Municipal Corporation will approve if found suitable and then after only the contractor shall carry out the work accordingly. Cross sections and Longitudinal sections for all roads must be submitted three times; (1) Before starting, (2) After DBM or BM and (3) After completion of work.**
4. The contractor shall have to arrange and provide by carrying out required drainage system, rain water removal, surface water disposal system, water works related services etc. as desired by engineer-in-charge.
5. The contractor shall have to carry out all types of necessary testing of material as per National Standard, the cost of which, is to be borne by the contractor. The testing shall have to be carried out in presence of officials of Rajkot Municipal Corporation.
6. All necessary testing required at site shall have to be carried out by the contractor during the execution of the work.
7. The word "Arbitration" or "Arbitration Clause" wherever mentioned in this tender document, is now to be treated as "Deleted". In this context, an Order bearing No.RMC/Legal/1858 dated 18-02-2017 of Legal Department of Rajkot Municipal Corporation is uploaded separately along with this tender.
8. The work is to be carried out as per RMC guidelines and as per instructions and requirement of engineer-in-charge.
9. **The work in respective Zone shall have to be carried out as per the instructions and requirement of engineer in charge, mandatorily with minimum two sets of paver machineries in zone altogether mandatorily OR minimum two sets of paver machineries must be provided simultaneously.**
10. **In case of bituminous mix required then the word "Batch Mix" wherever mentioned in the tender, if any, then the said word shall have to be read as "Hot Mix / Drum Mix".
The work shall have to be executed accordingly with Batch Mix Plant only.**
11. **In case of allowing single nozzle sprayer where roads' width is more than Browser then the Browser shall be used as per tender details, but in some cases where width of road is less, then the decision of engineer in charge will be final and binding to the contractor.**
12. **Bitumen for tack coat is Bitumen grade VG-30 whereas Emulsion will not be allowed.**

13. List of roads will be provided as and when estimates of that particular roads(s) sanction and actual required to be carried out of that particulars road(s) during the entire time period.
14. The decision of engineer in charge will be taken, if required, and will be final as per the site condition as to take asphalt wall to wall so that there will be way to go the water and also the workmanship will appear good so that proper railing can be done.
15. Considering the cause of damage as also whose responsibility will it be, will be decided by engineer in charge which will be final and binding for the work done by contractor on the road and if any excavation work is carried out by RMC on such road.
16. For the roads on which fresh metalling work and fresh chareda is done by RMC then the consent of engineer in charge shall be necessary for strengthening and profile correction which shall have to be done by the agency.
17. **The Batch Mix Plant Printers must be always in working condition and hard copy must be presented with all the bills of Batch Mix Plant.**
18. **All machineries like; Paver finisher, Rollers, Browsers etc., must be in perfect working condition always and such machines should not be old for more than 8 (Eight) years.**

Asst.Engineer
Rajkot Muni. Corporation

Dy.Ex.Engineer
Rajkot Muni. Corporation

CITY ENGINEER (SPECIAL)
Rajkot Muni. Corporation

Signature of Contractor

Rajkot Municipal Corporation
Schedule-B

Name of work:
DEVELOPMENT OF 24.0 MTR PAAL ROAD IN WARD NO.11 (RETENDER)

Item No.	Quantity	Description of Item	Rate	Unit	Amount
1	10500.00	Excavation of Paver Road (except for Road works)	56.58	SQM	594090.00
1.1	28500.00	Excavation for SOIL * Murrum up to 20 CM Depth	9.84	SQM	280440.00
1.2	28500.00	Additional Excavation for extra 45cm	3.69	SQM	105165.00
1.3	24093.00	Excavation of Foundation in Soft Murrum, Soil or Sand from 0.0 mtr. to 1.50 mtr depth including lifting and laying in 90 mtr. lead area as instructed	79.21	CUM	1908454.71
2	14775.00	Supply & Laying of Hard Murrum	215.66	CUM	3186376.50
3	4275.00	Construction of granular sub-base by providing close graded material, mixing in a mechanical mix plant at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density complete (Grade-I)	748.00	CUM	3197700.00
4	4275.00	Construction of granular sub-base by providing close graded material, mixing in a mechanical mix plant at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density complete (Grade-III)	582.00	CUM	2488050.00
5	7125.00	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material by tipper to site, laying in uniform layers with paver in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density	1061.00	CUM	7559625.00

Item No.	Quantity	Description of Item	Rate	Unit	Amount
6	28500.00	Providing and applying primer coat with bitumen emulsion(slow setting type) on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means.(As Per MoRTH-502)	58.00	SQM	1653000.00
7	6270.00	Dense Graded Bituminous Macadam (Grading II- 19 mm normal size) Providing and laying dense graded bituminous macadam with HMP using crushed aggregates of specified grading, premixed with 60/70 Grade bituminous binder @ 4.0 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification complete in all respects.(with Grading II- 19 mm normal size)	3051.00	MT	19129770.00
8	2622.00	BC Grade II, Nominal max size of agg 13 20mm (% Bitumen content as per mix design and min 5.4%)	3832.00	MT	10047504.00
9	1050.00	Supply and Laying of Machine crushed aggregate of size 25-38 mm	796.22	CUM	836031.00
10	6000.00	Supply & Fixing of 80mm M-30 Grade cement concrete rubber mold paving inter locking paving block (Grey Colour) after beding of black stone powder in line and CC on the edge in proportion of 1:2:4 with curing etc. complete	460.84	SQM	2765040.00
11	4200.00	Supply & Fixing of 60mm M-30 Grade cement concrete rubber mold paving inter locking paving block (Grey colour) after beding of black stone powder in line and CC on the edge in proportion of 1:2:4 with curing etc. complete of 1:2:4 with curing etc. complete	406.72	SQM	1708224.00

Item No.	Quantity	Description of Item	Rate	Unit	Amount
12	3120.00	Supply & fitting work for rubber mold divider stone 0.30 x 0.20 x 0.06	204.18	Rmt	637041.60
13	3120.00	Painting of Traffic Strip Footpath / Circle & divider block size 0.38 x 0.30 x 0.30 in two coats using enamel paint in different colors	41.00	Rmt	127920.00
14	6220.00	Supply & Fixing R.c.c. Spun Pipe With Collar Np3 Class 300mm Dia. With required all vata (1:1) , leveling & Curing complete	701.10	RMT	4360842.00
15	70.00	Manhole 0.90m/0.60m size 1.20m deep with exavation cement concrete 1:2:4 brick meassonary 1:6 0.30mm thick, foundation cement plaster 1:3, benching 50mm thick, IPS 1:2:4, top 15cm thick CC copping 1:2:4 with quaring finishing (without cover plate)	4332.06	Nos	303244.20
16	70.00	RCC Precast frame with supply, fitting, fixing with complete as per specification 10 Ton size 1000/700/90mm.(with beam) + Cover 10 Ton size 1000/700/90mm.	2011.46	Pair	140802.20
17	1125.00	Supply & Fixing R.c.c. Spun Pipe With Collar Np3 Class 450mm Dia. With required all vata (1:1) , leveling & Curing complete	1390.72	RMT	1564560.00
18	20.00	A Type MH inside dia 1200mm Depth 1.00mt	5221.76	Nos	104435.20
19	30.00	B Type MH inside dia 1500mm Depth 1.50mt	10322.98	Nos	309689.40
20	50.00	RCC Precast Circuler frame+caver with supply, fitting, fixing with complete as per specification 20 Ton	1890.92	Pair	94546.00

Item No.	Quantity	Description of Item	Rate	Unit	Amount
21	67500.00	Rolling work with Roller 8-10 Ton capacity over metalling murrum for soling or single layer arriving proper compaction (without watering)	5.74	Sqm	387450.00
		Total...			63490000.81

Asst.Engineer
Rajkot Muni. Corporation

Dy.Ex.Engineer
Rajkot Muni. Corporation

CITY ENGINEER (SPECIAL)
Rajkot Muni. Corporation

I/We agree to carry out the above said work at (to be quoted online) % Equal / above / below on the tendered rates shown in Schedule.

Signature of Contractor: