

**OFFICE OF THE MUNICIPAL COUNCIL NEEMUCH  
Distt. Neemuch (MP)**

**Appendix 2.10  
Tender Document**

For Percentage Rate only in Works Departments and other  
Departments similar to Works Departments

Office of the Municipal Council, Neemuch Distt. Neemuch (M.P.)

NIT Number and Date : .....

Agreement Number and Date : \_\_\_\_\_

Name of Work : **Construction for ENTRY GATE  
AND FINISHING WORK FOR  
W.NO. 14 INDOOR HALL**

Name of the Contractor : \_\_\_\_\_

Probable Amount of Contract  
(Rs. In Figure) : **Rs. 24795645+GST**  
(Rs. In Words) : **Two Carore Forty Seven Lakh Ninty  
Five Thousand Six Hundred Forty Five**

Contract Amount  
(Rs. In Figure) : \_\_\_\_\_  
(Rs. In Words) : \_\_\_\_\_

Stipulated Period of Completion: .....

# Appendix 2.10

## Tender Document

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# SECTION 1

## Notice Inviting e-Tenders

OFFICE OF THE MUNICIPAL COUNCIL NEEMUCH

Distt. Neemuch (MP)

N.I.T. No /e-tendering/NMH/2026

Dated -----

Online percentage rate bids for the following works are invited from registered contractors and firms of repute fulfilling registration criteria:

S. No./ Pkg/Code	Work	District(s)	Probable Amount	Completion Period (months)
1/	Construction for ENTRY GATE AND FINISHING WORK FOR W.NO. 14 INDOOR HALL	Neemuch	24795645 +GST	06 Months excluding rainy season

1. Interested bidders can view the NIT on website <http://www.mpeproc.gov.in>
2. The Bid Document can be purchased only online from Amendments to NIT, if any, would be published on website only, and not in newspaper.

**Signature and Designation**

**Notice Inviting Tender**  
**OFFICE OF THE MUNICIPAL COUNCIL NEEMUCH**  
**Distt. Neemuch (MP)**

N.I.T. No /e-tender/NMH/2026

Dated -----

Online percentage rate bids for the following works are invited from registered contractors and firms of repute fulfilling registration criteria:

S. No. /Pkg/ Code	Name of Work	District(s)	Probable Amount of Contract	Earnest Money Deposit (EMD) (In Rupees)	Cost of Bid Document (In Rupees)	Category of Contractor	Period of Completion (in Months)
1/ .....	Construction for ENTRY GATE AND FINISHING WORK FOR W.NO. 14 INDOOR HALL	Neemuch	24795645+GST	124000/-	15000/-	"C"	06 Months (including rainy season)

1. All details relating to the Bid Document(s) can be viewed and downloaded free of cost on the website.
2. Bid Document can be purchased after making online payment of portal fees through Credit/Debit/Cash Card/internet banking.
3. At the time of submission of the Bid the eligible bidder shall be required to:
  - i) pay the cost of Bid Document;

- ii) deposit the Earnest Money;
- iii) Submit a check list; and
- iv) Submit an affidavit.

Details can be seen in the Bid Data Sheet.

**4. ELIGIBILITY FOR BIDDERS:**

(a) At the time of submission of the Bid the bidder should have valid registration with the Government of Madhya Pradesh, PWD in appropriate class. However, such bidders who are not registered with the Government of Madhya Pradesh

and are eligible for registration can also submit their bids after having applied for registration with appropriate authority.

(b) The bidder would be required to have valid registration at the time of signing of the Contract.

(c) Failure to sign the contract by the selected bidder, for whatsoever reason, shall result in forfeiture of the earnest money deposit.

5. **Pre-qualification** – Pre qualification conditions wherever apply are given in the bidData Sheet.

6. **Special Eligibility** - Special Eligibility Conditions, if any, are given in the Bid Data Sheet.

7. The Bid Document can be purchased only online from AS PER ONLINE TENDER CRITICAL DATES. Other key dates may be seen in bid data sheet.

8. Amendments to NIT, if any, would be published on website only, and not in newspaper.

**(Signature and Designation)**

## **SECTION 2**

### **INSTRUCTIONS TO BIDDERS (ITB)**

#### **A. GENERAL**

**1. SCOPE OF BID**

The detailed description of work, hereinafter referred as 'work', is given in the Bid Data Sheet.

**2. General Quality of Work:**

The work shall have to be executed in accordance with the technical specifications specified in the Bid Data sheet/ Contract Data, and shall have to meet high standards of workmanship, safety and security of workmen and works.

**3. PROCEDURE FOR PARTICIPATION IN E-TENDERING**

The procedure for participation in e-tendering is given in the Bid Data Sheet.

**4. ONE BID PER BIDDER**

The bidder can be an individual entity or a joint venture (if permitted as per Bid Data Sheet). In case the J.V. is permitted, the requirement of joint venture shall be as per the Bid Data Sheet.

No bidder shall be entitled to submit more than one bid whether jointly or severally. If he does so, all bids wherein the bidder has participated shall stand disqualified.

**5. Cost of Bidding**

The bidder shall bear all costs associated with the preparation and submission of his bid, and no claim whatsoever for the same shall lie on the Government.

**6. Site Visit and examination of works**

The bidder is advised to visit and inspect the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the work. All costs in this respect shall have to be borne by the bidder.

#### **B. Bid Documents**

**7. CONTENT OF BID DOCUMENTS**

The Bid Document comprises of the following documents:

1. NIT with all amendments.
  2. Instructions to Bidders, Bid Data Sheet with all Annexures
  3. Conditions of Contract:
    - i. Part I General Conditions of Contract and the Contract Data with all Annexures; and
    - ii. Part II Special Conditions of Contract.
  4. Specifications
  5. Drawings
  6. Priced Bill of Quantities
  7. Technical and Financial Bid
  8. Letter of Acceptance
  9. Agreement, and
  10. Any other document(s), as specified.
8. The bidder is expected to examine carefully all instructions, conditions of contract, the **contract data**, forms, terms and specifications, bill of quantities, forms and drawings in the Bid Document. Bidder shall be solely responsible for his failure to do so.
- 9. Pre-Bid Meeting (where applicable)**

Wherever the Bid Data Sheet provides for pre-bid meeting:

Details of venue, date and time would be mentioned in the Bid Data Sheet. Any change in the schedule of pre-bid meeting would be communicated on the website only, and intimation to bidders would not be given separately.

Any prospective bidder may raise his queries and/or seek clarifications in writing before or during the pre-bid meeting. The purpose of such meeting is to clarify issues and answer questions on any matter that may be raised at that stage. The Employer may, at his option, give such clarifications as are felt necessary.

Minutes of the pre-bid meeting including the gist of the questions raised and the responses given together with any response prepared after the meeting will be hosted on the website.

Pursuant to the pre-bid meeting if the Employer deems it necessary to amend the Bid Document, it shall be done by issuing amendment to the online NIT.

**10. Amendment of Bid Documents**

Before the deadline for submission of bids, the Employer may amend or modify the Bid Documents by publication of the same on the website.

All amendments shall form part of the Bid Document.

The Employer may, at its discretion, extend the last date for submission of bids by publication of the same on the website.

### **C. Preparation of Bid**

11. The bidders have to prepare their bids online, encrypt their Bid Data in the Bid Forms and submit Bid Seals (Hashes) of all the envelopes and documents related to the Bid required to be uploaded as per the time schedule mentioned in the key dates of the Notice Inviting e-Tenders after signing of the same by the Digital Signature of their authorized representative.

#### **12. DOCUMENTS COMPRISING THE BID**

The bid submitted online by the bidder shall be in the following parts:

**Part 1** – This shall be known as Online **Envelope A** and would apply for all bids. Online **Envelope A** shall contain the following as per details given in the Bid Data Sheet:

- i) Registration number or proof of application for registration and organizational details in format given in the Bid Data Sheet.
- ii) Payment of the cost of Bid Document;
- iii) Earnest Money; and
- iv) An affidavit duly notarized.

**Part 2** – This shall be known as Online **Envelope B** and required to be submitted only in works where pre-qualification conditions and/or special eligibility conditions are stipulated in the Bid Data Sheet. Online **Envelope B** shall contain a self-certified sheet duly supported by documents to demonstrate fulfillment of pre-qualification conditions.

**Part 3** – This shall be known as Online **Envelope C** and would apply to all bids. **Envelope C** shall contain financial offer in the prescribed format enclosed with the Bid Data Sheet.

#### **13. Language**

The bid as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer shall be in English or Hindi. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English. In such case, for the purposes of interpretation of the bid, such translation shall govern.

#### **14. TECHNICAL PROPOSAL**

Only, in case of bids with pre-qualification conditions defined in the Bid Data Sheet, the Technical Proposal shall comprise of formats and requirements given in the Bid Data Sheet.

All the documents/ information enclosed with the Technical Proposal should be self-attested and certified by the bidder. The Bidder shall be liable for forfeiture of his earnest money deposit, if any document / information are found false/ fake/ untrue before acceptance of bid. If it is found after acceptance of the bid, the bid sanctioning authority may at his discretion forfeit his performance security/ guarantee, security deposit, enlistment **deposit** and take any other suitable action.

#### **15. FINANCIAL BID**

- i. The bidder shall have to quote rates in format referred in Bid Data Sheet, in overall percentage, and not item wise. If the bid is in absolute amount, overall percentage would be arrived at in relation to the probable amount of contract given in NIT. The overall percentage rate would apply for all items of work.
- ii. Percentage shall be quoted in figures as well as in words. If any difference in figures and words is found, lower of the two shall be taken as valid and correct.
- iii. The bidder shall have to quote rates inclusive of all duties, taxes, royalties and other levies; and the Employer shall not be liable for the same.
- iv. The material along with the units and rates, which shall be issued, if any, by the department to the contractor, is mentioned in the Bid Data Sheet.

#### **16. PERIOD OF VALIDITY OF BIDS**

The bids shall remain valid for a period specified in the Bid Data Sheet after the date of “close for bidding” as prescribed by the Employer. The validity of the bid can be extended by mutual consent in writing.

#### **17. EARNEST MONEY DEPOSIT (EMD)**

The Bidder shall furnish, as part of the Bid, Earnest Money Deposit (EMD), in the amount specified in the Bid Data Sheet.

The EMD shall be in the form of Fixed Deposit Receipt of a scheduled commercial bank, issued in favour of the name given in the Bid Data Sheet. The Fixed Deposit Receipt shall be valid for six months or more after the last date of receipt of bids. However, other form(s) of EMD may be allowed by the Employer by mentioning it in the Bid Data Sheet.

Bid not accompanied by EMD shall be liable for rejection as non-responsive.

EMD of bidders whose bids are not accepted will be returned within ten working days of the decision on the bid.

EMD of the successful Bidder will be discharged when the Bidder has signed the Agreement after furnishing the required Performance Security.

Failure to sign the contract by the selected bidder, within the specified period, for whatsoever reason, shall result in forfeiture of the earnest money deposit.

#### **D. Submission of Bid**

18. The bidder is required to submit online bid duly signed digitally, and Envelop 'A' in physical form also at the place prescribed in the Bid Data Sheet.

#### **E. Opening and Evaluation of Bid**

##### **19 PROCEDURE**

Envelope 'A' shall be opened first online at the time and date notified and its contents shall be checked. In cases where Envelop 'A' does not contain all requisite documents, such bid shall be treated as non-responsive, and Envelop B and/or C of such bid shall not be opened.

Wherever Envelop 'B' (Technical Bid) is required to be submitted, the same shall be opened online at the time and date notified. The bidder shall have freedom to witness opening of the Envelop 'B'. Envelop 'C' (Financial Bid) of bidders who are not qualified in Technical Bid (Envelop 'B') shall not be opened.

Envelope 'C' (Financial Bid) shall be opened online at the time and date notified. The bidder shall have freedom to witness opening of the Envelop 'C'.

After opening Envelop 'C' all responsive bids shall be compared to determine the lowest evaluated bid.

The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all the bids at any time prior to contract award, without incurring any liability. In all such cases reasons shall be recorded.

The Employer reserves the right of accepting the bid for the whole work or for a distinct part of it.

##### **20. Confidentiality**

Information relating to examination, evaluation, comparison and recommendation of contract award shall not be disclosed to bidders or any other person not officially concerned with such process until final decision on the bid.

Any attempt by a bidder to influence the Employer in the evaluation of the bids or contract award decisions may result in the rejection of his bid.

## **F. Award of Contract**

### **21. Award of Contract**

The Employer shall notify the successful bidder by issuing a 'Letter of Acceptance' (LOA) that his bid has been accepted.

### **22. Performance Security**

Prior to signing of the Contract the bidder to whom LOA has been issued shall have to furnish performance security of the amount in the form and for the duration, etc. as specified in the Bid Data Sheet.

Additional performance security, if applicable, is mentioned in the Bid Data Sheet and shall be in the form and for the duration, etc. similar to Performance Security.

### **23. Signing of Contract Agreement**

The successful bidder shall have to furnish Performance Security and Additional Performance Security, if any, and sign the contract agreement within 15 days of issue of LOA.

The signing of contract agreement shall be reckoned as intimation to commencement of work. No separate work order shall be issued by the Employer to the contractor for commencement of work.

In the event of failure of the successful bidder to submit Performance Security and Additional Performance Security, if any or sign the Contract Agreement, his EMD shall stand forfeited without prejudice to the right of the employer for taking any other action against the bidder.

### **24. CORRUPT PRACTICES**

The Employer requires that bidders observe the highest standard of ethics during the procurement and execution of contracts. In pursuance of this policy, the Employer:

- i. may reject the bid for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract; and
- ii. may debar the bidder declaring ineligible, either indefinitely or for a stated period of time, to participate in bids, if it at any time determines that the bidder has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, a contract.

For the purposes of this provision, the terms set forth above are defined as follows:

- a. “corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
- b. “fraudulent practice” means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
- c. “coercive practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- d. “Collusive practice” means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.

**[End of ITB]**

## Bid Data Sheet

<b>GENERAL</b>		
SR. No.	PARTICULARS	DATA
1	Office Inviting Tender	MUNICIPAL COUNCIL, NEEMUCH
2	NIT No.	.....
3	Date of NIT	.....
4	Bid document download available from date & time	..... (10:30)   ..... (17:30)
5	Website link	http:// www.mpeproc.gov.in
<b>SECTION 1 - NIT</b>		
NIT CLAUSE	PARTICULARS	DATA
1	Portal Fees (also known as processing fee)	As notified in E-Tendering Website
2	Cost of Bid Document	Rs. 15000 /-
	Cost of Bid Document Payable at	Credit/Debit/Cash Card/internet banking
	Cost of Bid Document In favor of	CMO, MUNICIPAL COUNCIL, NEEMUCH
3	Affidavit Format	As per 'Annexure- B'
4	Pre-qualifications required	NO
	If Yes, details	As per' Annexure- C' (Evaluation by <b>Chief Municipal Officer</b> who will intimate reasons to disqualified bidders) (Not Applicable)
5	Special Eligibility (if yes, prior permission of E-in-C required)	No
	If Yes, details	As per 'Annexure -D'(Not Applicable)
6	Key dates	As per 'Annexure -A'
<b>SECTION 2 - ITB</b>		
ITB CLAUSE	PARTICULARS	DATA
1	Name of the 'Work'	<b>Construction for ENTRY GATE AND FINISHING WORK FOR W.NO. 14 INDOOR HALL</b>
2	Specifications	As per 'Annexure – E'
3	Procedure for participation in e-tendering	As per 'Annexure – F'
4	Whether Joint Venture is allowed.	Yes
	If yes, requirement for Joint Venture	As per 'Annexure – G' (Not Applicable)
9	Prebid meeting to be held	No
	If Yes, Date Time, Place	Date: Time: Place :

## Bid Data Sheet

12	<b>Envelope-A</b> containing : i. Organizational details as per 'Annexure H' ii. Cost of Bid Document iii. EMD iv. An affidavit duly notarized as per 'Annexure- B' should reach in physical form in the office of :	Only Online Accepted
14	<b>Envelope-B</b> Technical Proposal	As per 'Annexure - I' and Annexure - I (Format I-1 to I-5) (Not Applicable)
15	<b>Envelope-C</b> Financial Bid	As per 'Annexure - J '
	Materials to be issued by the department	As per 'Annexure - K' (NIL)
16	Period of Validity of Bid	<b>120 Days</b>
	Earnest Money Deposit	Rs. 124000/-
17	Forms of Earnest Money Deposit	i. FDR ii. Demand draft of scheduled commercial bank iii. Interest bearing securities of post office.
	EMD valid for a period of	<b>One Year</b>
	FDR must be drawn in favour of	CMO ,MUNICIPAL COUNCIL, NEEMUCH
21	Letter of Acceptance (LoA)	As per 'Annexure -L'
22	Amount of Performance Security	<b>Performance security to be deposited @3(three) % of contract amount</b>
	Additional Performance Security, if any	Additional performance security to be deposited @ equal to- (a) If rates are below 10% and upto 20% value equal to the percentage below 10% of probable amount of contract (PAC) (b) If rates are below 20% as per (a) and twice the value below 20% of probable amount of contract (PAC)
	Performance Security in the format	As per 'Annexure- M'
	Performance Security in favour of	CMO, MUNICIPAL COUNCIL, NEEMUCH
	Performance Security valid up to	<b>Contract Period plus Three months beyond the completion of Defect Liability Period (Maintenance Guarantee Period)</b>

## Annexure-A

(See clause 1, 7 of Section 1 -NIT)

### KEY DATES

S.No.	Works Department Stage	Bidder's Stage	Start		Expiry		Envelopes
			Date	Time	Date	Time	
1	-	Purchase of Tender- Online	AS PER ONLINE TENDER CRITICAL DATES				
2	-	Bid Submission- Online					
4	Mandatory submission Open (Envelope-A)	-					Envelope A
5	Financial Bid Open (Envelope C)	-					Envelope C

**|| AFFIDAVIT ||**  
**(To be Contained in Envelope A)**

I/we \_\_\_\_\_ who is/ are \_\_\_\_\_ (status in the firm/ company) and competent for submission of the affidavit on behalf of M/S \_\_\_\_\_ (contractor) do solemnly affirm an oath and state that:

I/we am/are fully satisfied for the correctness of the certificates/records submitted in support of the following information in bid documents which are being submitted in response to notice inviting e-tender No. \_\_\_\_\_ for \_\_\_\_\_ (name of work) dated \_\_\_\_\_ issued by the \_\_\_\_\_ (name of the department).

I/we am/ are fully responsible for the correctness of following self-certified information/ documents and certificates:

1. That the self-certified information given in the bid document is fully true and authentic.
2. That:
  - a. Information regarding financial qualification and annual turnover is correct. Submitted online is correct.
  - b. Information regarding various technical qualifications is correct.
3. No close relative of the undersigned and our firm/company is working in the department.

**OR**

Following close relatives are working in the department:

Name \_\_\_\_\_ Post \_\_\_\_\_ Present Posting \_\_\_\_\_

**Signature with Seal of the Deponent (bidder)**

I/ We, \_\_\_\_\_ above deponent do hereby certify that the facts mentioned in above paras 1 to 3 are correct to the best of my knowledge and belief. In the event of any information is found to be incorrect/untrue or found violated, then without giving any prior notice, our bid shall be liable for rejection or termination of contract, without prejudice to any other rights of remedy including the forfeiture of the bid security/performance security.

Verified today \_\_\_\_\_ (dated) at \_\_\_\_\_ (place).

**Signature with Seal of the Deponent (bidder)**

*Note: Affidavit duly notarized in original shall reach at least one calendar day before opening of the bid.*

**PRE-QUALIFICATIONS CRITERIA**

The bidder should have:

**A. Financial**

- i. experience of having successfully executed:
  - a) three similar works, each costing not less than the amount equal to 20% of the probable amount of contract during the last 3 financial years; or
  - b) two similar works, each costing not less than the amount equal to 30% of the probable amount of contract during the last 3 financial years; or
  - c) one similar work of aggregate cost not less than the amount equal to 50% of the probable amount of contract in any one financial year during the last 3 financial years;
- ii. Average annual construction turnover on all construction works not less than 50% of the probable amount of contract during the last 3 financial years.
- iii. Executed similar items of work in any one financial year during the last 3 financial years, which should not be less than the minimum, physical requirement as fixed for the work.
- iv. **Bid Capacity** shall be up to his available Bid Capacity, which shall be given in format I-2 of Annexure I.

**Note: Evaluation by Supplier/Engineer who will intimate reasons to disqualified bidders**

**B. Physical**

Physical qualifications for the work shall be as below

Sno	Particulars	Quantity	Period
1	Physical qualification required	No	
2	Earthwork		
3	Concrete work		

**(The Employer shall specify all physical qualifications required).**

**Note: Above criteria is indicative, subject to suitable stipulations by the departments and specific Bid.**

**SPECIAL ELIGIBILITY CRITERIA**

**The bidder should have experience of:**

A. Erection of Steel Gates

- .....

B. Construction of tunnel

- .....

*Note: Above criteria are subject to the stipulations by the departments and*

**N/A**

## **Specifications**

- 1. UADD SOR 08.09.2025, Specification, relevant 15 codes Circular etc.**

**(The soft copy of above specifications is available at departmental website  
[www.mpurban.gov.in](http://www.mpurban.gov.in))**

*The provisions of general / special conditions of contract, those specified elsewhere in the bid document, as well as execution drawings and notes, or other specifications issued in writing by the Employer shall form part of the technical specifications of this work.*

## **Procedure for Participation in e-Tendering**

### **1. Registration of Bidders on e-Tendering System:**

All the PWD registered bidders are already registered on the new e-procurement portal <https://www.mpeproc.gov.in>. The user id will be the contractor ID provided to them from MP Online. The password for the new portal has been sent to the bidders registered email ID. for more details may contact M/s. \_Tata Consultancy Services Corporate Block, 5<sup>th</sup> floor, DB City BHOPAL-462011 email id: [eproc\\_helpdesk@mpsdc.gov.in](mailto:eproc_helpdesk@mpsdc.gov.in). Helpdesk phone numbers are available on website.

### **2. Digital Certificate:**

The bids submitted online should be signed electronically with a Class III Digital Certificate to establish the identity of the bidder submitting the bid online. The bidders may obtain Class III Digital Certificate issued by an approved Certifying Authority authorized by the Controller of Certifying Authorities, Government of India. A Class III Digital Certificate is issued upon receipt of mandatory identity proofs along with an application. Only upon the receipt of the required documents, a Digital Certificate can be issued. For details please visit [cca.gov.in](http://cca.gov.in).

#### **Note:**

- i. It may take upto 7 working days for issuance of Class III Digital Certificate; hence the bidders are advised to obtain the certificate at the earliest. Those bidders who already have valid Class III Digital Certificate need not obtain another Digital Certificate for the same. The bidders may obtain more information and the Application Form required to be submitted for the issuance of Digital Certificate from [CCA.GOV.IN](http://CCA.GOV.IN)*
- ii. Bids can be submitted till bid submission end date. Bidder will require digital signature while bid submission.*

The digital certificate issued to the Authorized User of a Partnership firm / Private Limited Company / Public Limited Company and used for online bidding will be considered as equivalent to a no-objection certificate / power of attorney to that user.

In case of Partnership firm, majority of the partners have to authorize a specific individual through Authority Letter signed by majority of the partners of the firm.

in case of Private Limited Company, Public Limited Company, the Managing Director has to authorize a specific individual through Authority Letter. Unless the certificate is revoked, it will be assumed to represent adequate authority of the specific individual to bid on behalf of the organization for online bids as per information Technology Act 2000. This Authorized User will be required to obtain a Digital Certificate. The Digital Signature executed through the use of Digital Certificate of this Authorized User will be binding on the firm. It shall be the responsibility of Management / Partners of the concerned firm to inform the Certifying Authority, if the Authorized User changes, and apply for a fresh Digital Certificate for the new Authorized User.

**3. Set Up of Bidder's Computer System:**

In order for a bidder to operate on the e-tendering System, the Computer System of the bidder is required to be set up for Operating System, Internet Connectivity, Utilities, Fonts, etc. The details are available at <https://www.mpeproc.gov.in>

**4. Key Dates:**

The bidders are strictly advised to follow the time schedule (Key Dates) of the bid on their side for tasks and responsibilities to participate in the bid, as all the stages of each bid are locked before the start time and date and after the end time and date for the relevant stage of the bid as set by the Department.

## **5. Preparation and Submission of Bids**

The bidders have to prepare their bids online, encrypt their bid Data in the Bid forms and submit Bid of all the envelopes and documents related to the Bid required to be uploaded as per the time schedule mentioned in the key dates of the Notice inviting e-Tenders after signing of the same by the Digital Signature of their authorized representative.

## **5. Purchase of Bid Document**

For purchasing of the bid document bidders have to pay Service Charge online ONLY which is Rs. [as per Bid Date Sheet]. Cost of bid document is separately mentioned in the Detailed NIT. The Bid Document shall be available for purchase to concerned eligible bidders immediately after online release of the bids and upto scheduled time and date as set in the key dates.

The payment for the cost of bid document shall be made online through Debit/Credit card, Net banking or NeFT Challan through the payment gateway provided on the portal.

## **7 Withdrawal, Substitution and Modification Of Bids**

Bidder can withdraw and modify the bid till Bid submission end date.

## JOINT VENTURE (J.V.)

If J.V. is allowed following conditions and requirements must be fulfilled -

1. Number of partners in a Joint Venture shall not exceed 3 (three). The partners shall comply with the following requirements:
  - a. One of the partners shall be nominated as being Lead Partner, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners.
  - b. The bid and, in case of successful bid, the Agreement, shall be signed so as to be legally binding on all partners.
  - c. The partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture and the entire execution of the contract, including payment, shall be done exclusively with the partner in charge.
  - d. All the partners of the joint venture shall be liable jointly and severally for the execution of the contract in accordance with the contract terms, and a statement to this effect shall be included in the authorization mentioned under (c) above, as well as in the bid and in the Agreement (in case of successful bid).
  - e. The joint venture agreement should indicate precisely the role and responsibilities of all the members of JV in respect of planning, design, construction equipment, key personnel, work execution, and financing of the project including operation and maintenance of the works. All members of JV should have active participation in execution during the currency of the contract. This should not be varied/modified subsequently without prior approval of the employer.
  - f. The joint venture agreement should be registered, so as to be legally valid and binding on all partners.
  - g. A copy of the Joint Venture Agreement entered into by the partners shall be submitted with the Bid.
2. All the partners should meet out the minimum qualifying criteria required for the bid and collectively must meet the criteria specified in full. Failure to comply with this requirement will result in rejection of the joint venture's bid.
3. The performance security of joint venture shall be in the name of the partner Lead partner/joint venture.
4. Attach the power of attorney of the partners authorizing the Bid signatory(ies) on behalf of the joint venture.
5. An individual Bidder cannot at the same time be member of a Joint Venture applying for this Bid. Further, a member of a particular Bidder Joint Venture cannot be member of any other Bidder Joint Venture applying for this bid.
6. Furnish details of participation proposed in the joint venture as below:

PARTICIPATION DETAILS	FIRM 'A' (Lead partner)	FIRM 'B'	FIRM 'C'
Financial			
Name of the Banker(s)			
Planning			
Construction Equipment			
Key personnel			
Execution of Work (Give details on contribution of each)			

7. The partners of J.V. should satisfy the qualification criteria as below:
  - a. The Lead Partner must meet at least 50% requirement of Technical and Financial eligibility criteria required for the bid.
  - b. The other partner(s) must meet at least 25% requirement of Technical and Financial eligibility criteria required for the bid.
  - c. The lead partner and the other partners should together meet 100% of all the eligibility criteria required for the bid.
8. For the meeting the minimum qualification criteria of experience of similar nature work, every partner can have experience of different works as defined in similar nature works and together should have the experience of all type of works described in similar nature works.

**Annexure - H***(See clause 12 of Section 2 –ITB & clause 4 of GCC)***ORGANIZATIONAL DETAILS****(To be Contained in Envelope - A)**

<b>S. No.</b>	<b>Particulars</b>	<b>Details</b>
1.	Registration number issued by Centralized Registration System of Govt. of M.P. or Proof of application for registration.	(If applicable, scanned copy of proof of application for registration to be uploaded)
2.	Valid Registration of bidder in appropriate class through Centralized Registration of Govt. of MP	Registration No. _____ Date _____ (Scanned copy of Registration to be uploaded)
3.	Name of Organization/ Individual/ Proprietary Firm/ Partnership Firm	
4.	Entity of Organization Individual/ Proprietary Firm/ Partnership Firm (Registered under Partnership Act)/ Limited Company (Registered under the Companies Act–1956)/ Corporation/ Joint Venture	
5.	Address of Communication	
6.	Telephone Number with STD Code	
7.	Fax Number with STD Code	
8.	Mobile Number	
9.	E-mail Address for all communications	
	<b>Details of Authorized Representative</b>	
10.	Name	
11.	Designation	
12.	Postal Address	
13.	Telephone Number with STD Code	
14.	Fax Number with STD Code	
15.	Mobile Number	
16.	E-mail Address	

Note: *In case of partnership firm and limited company certified copy of partnership deed/ Articles of Association and Memorandum of Association along with registration certificate of the company shall have to be enclosed.*

**Signature of Bidder with Seal**

Date: \_\_\_\_\_

## Envelope – B, Technical Proposal

**Technical Proposal shall comprise the following documents:**

Sno	Particulars	Details to be submitted
1	Experience – Financial & Physical	Annexure - I (Format: I-1)
2	Annual Turnover	Annexure - I (Format: I-2)
3	List of technical personnel for the key positions	Annexure - I (Format: I-3)
4	List of Key equipments/ machines for quality control labs	Annexure - I (Format: I-4)
5	List of Key equipments/ machines for construction work	Annexure - I (Format: I-5)

**Note:**

1. *Technical Proposal should be uploaded duly page numbered and indexed.*
2. *Technical Proposal uploaded otherwise will not be considered.*

**Annexure - I (Format: I-1)**

*(See clause 14 of Section 2 -ITB)*

**FINANCIAL & PHYSICAL EXPERIENCE DETAILS**

**A. Financial Requirement:**

**The bidder should have completed either of the below:**

- a) three similar works each costing not less than the amount equal to 20% of the probable amount of contract during the last 3 financial years; or
- b) two similar works each costing not less than the amount equal to 30% of the probable amount of contract during the last 3 financial years; or
- c) one similar work of aggregate cost not less than the amount equal to 50% of the probable amount of contract in any one financial year during the last 3 financial years;

**To be filled in by the contractor:**

- i. *Details of successfully completed similar works shall be furnished in the following format.*
- ii. *Certificate duly signed by the employer shall also be enclosed for each completed similar work.*

Agreement Number & Year	Name of Work	Date of Work Order	Date of Completion	Amount of Contract	Employer's Name and Address

**Existing commitments – (Value of 'C' for work and Capacity for work)**

Agreement Number & Year	Name of Work	Date of Work Order	Date of Completion	Amount of Contract	Amount of balance work	Employer's Name and Address

**B. Physical Requirement:**

Execution of similar works of work in any one financial year during the last 3 financial years should be less than the minimum physical requirement fixed for the work.

SNo	Particulars	Actual Quantity Executed (To be filled in by the contractor)		
		Year – 1	Year – 2	Year – 3
1	Physical qualification required	Yes/ No		
2	Earthwork			
3	Concrete work			

Note: 1. *Certificate duly signed by the employer shall be enclosed for the actual quantity executed in any one year during the last 3 financial years.*

2. *Similar works: The similarity shall be based on the physical size, complexity, methods technology or other characteristics of main items of work viz. earth work, cement concrete, Reinforced cement concrete, brick masonry, stone masonry etc.*

**ANNUAL TURN OVER**

**Requirement:**

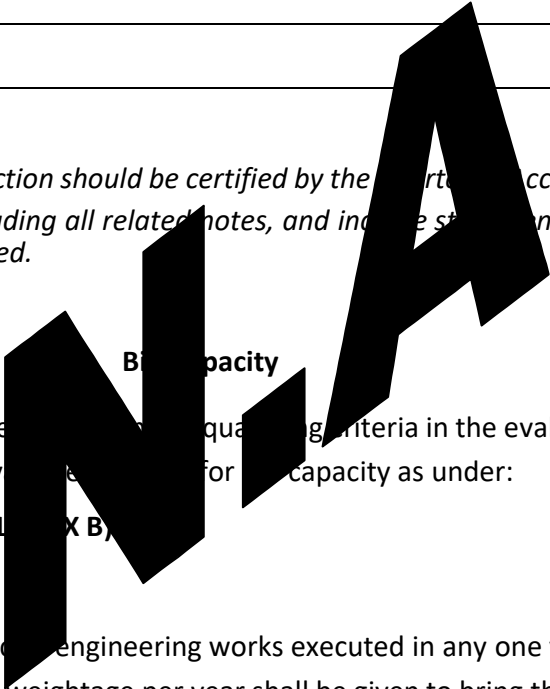
Average annual construction turnover on the construction works not less than 50% of the probable amount of contract during the last 5 financial years;

**To be filled in by the contractor:**

Financial Year	Payments received for contracts in progress or completed
1	
2	
3	
4	
5	

**Note:**

- i. Annual turnover of construction should be certified by the chartered accountant.
- ii. Audited balance sheet including all related notes, and income statements for the above financial years to be enclosed.



**Bid Capacity**

Applicants who meet the qualification criteria in the evaluation as stated above are to be evaluated for bid capacity as under:

**Bid Capacity = (1/A) X B**

Where

A = Maximum value of civil engineering works executed in any one year during the last five year (10% weightage per year shall be given to bring the value of work executed at present price level)

B = Proposed contract period in years.

C = Amount of work in hand at present.

**List of technical Personnel for the Key Positions in Building Works**

Probable Amount of Contract in Rs. Crs.	Key Position	Minimum Requirement					Available with the Bidder					Remarks (Evaluation Result)
		Minimum Number Required	Qualification	Age	Similar Work Experience	Status	Name of Personnel	Qualification	Age	Similar Work Experience	Status	
Upto 2 Cr.	Technologist	1	Diploma civil	21	2 years	Full Time						
2 Cr. To 10 Cr.	Engineer	1	B. E Civil	23	2 years	Full Time						
	Technologist	1	Diploma E/M	23	2 years	As & When Required						
10 Cr. To 50 Cr.	Engineer	1	B. E Civil	23	2 years	Full Time						
	Technologist	1	Diploma civil	24	5 years	Full Time						
	Technologist	1	Diploma E/M	21	2 years	As & When Required						
For each addition al 50 Cr.	Engineer	1	B. E Civil	23	2 years	Full Time						
	Engineer	1	BE E/M	23	2 years	Full Time						
	Technologist	1	Diploma Civil	23	2 years	Full Time						
	Technologist	1	Diploma E/M	23	2 years	Full Time						

**List of Key Equipments/ Machines for Quality Control labs**

S. No	Minimum Requirement		Qty. Available with the Bidder	Remarks (Evaluation Results)
	Name of Quality Control Equipments/Machine	Qty.		
1.	<b>Balances</b> i. 7 Kg. To 10 Kg. Capacity, Semi-Self indicating type-Accuracy 10 gm. ii. 500 gm. Capacity, Semi-Self indicating type-Accuracy 1 gm. iii. Pan Balance- 5 Kg. Capacity, Accuracy 10 gm.	1 Set		
2.	Ovens-Electrically operated, thermostatically controlled up to 110 G. Sensitivity 1C	1 Set		
3.	Sieves : As per IS 460-1962. i. I.S. Sieves- 450 mm internal dia of sizes 100 mm, 80 mm, 63 mm, 50 mm, 40 mm, 25 mm, 20 mm, 12.5 mm, 10 mm, 6.3 mm, 4.75 mm complete with lid and pan. ii. IS Sieves- 200 mm internal dia, (brass frame) consisting of 2.36 mm, 1.18 mm, 600 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns, 75 microns with lid and pan.	1 Set		
4.	Sieve shaker capable of 200 mm and 300 mm dia sieves, manually operated with timing switch assembly.	1 Set		
5.	Equipment for slump test-Slump Cone, steel plate tamping rod, steel scale scoop.	1 Set		
6.	Dial gauges 25 mm travel- 0.01 mm/division. Least count- 2 Nos.	1 Set		
7.	100 tones compression testing machine, electrical-cum manually operated.	1 Set		
8.	Graduated measuring cylinders 200 ml capacity - 3 Nos.	1 Set		
9.	Enamel trays (for efflorescence test for bricks) i. 300mm X 250 mm X 40 mm - 2 Nos. ii. Circular plates of 250 mm dia - 4 Nos.	1 Set		

Note :- For work costing (PAC) above 10 cr. Additional sets shall be made available as per requirement.

## List of Key Construction Equipments/ Machines for Building Works

Probable Amount of Contract (PAC)	S. No	Minimum Requirement		Available with the bidder	Remarks (Evaluation Results)
		Name of Construction Equipment/ Machinery	Quantity		
up to 2.00 Cr	1	Concrete Mechanical Mixer With Hopper (1 cum capacity minimum.)	1 no.		
	2	Plate Vibrator	2 nos		
	3	Diesel/Electric pin Vibrator	2 nos		
	4	Fully well equipped lab	1 nos		
	5	Curing pump of 1.5 hp capacity with set of pipe	1 nos		
	6	Steel shuttering plates /centering pipes	100 M <sup>2</sup>		
	7	Auto level instrument	1 nos		
2.00 Cr to 10.00 Crs	1	Concrete Mechanical Mixer With Hopper	2 nos		
	2	Concrete weight batcher minimum 30 cubic Meter Capacity (as an when required)	1nos		
	3	Plate Vibrator	3 nos		
	4	Diesel/Electric pin Vibrator	3 nos		
	5	Fully well equipped lab	1 No.		
	6	Curing pump of 1.5 hp capacity with set of pipe	2 Nos.		
	7	mm centering plates/centering pipes	1000 M <sup>2</sup>		
	8	Auto level instrument	1 No.		
10.00 to 50 Cr.	1	Concrete Mechanical Mixer With Hopper	3 nos		
	2	Concrete weigh batcher minimum 30 cubic meter capacity	2 Nos.		
	3	Plate Vibrator	4 Nos.		
	4	Diesel/Electric pin Vibrator	4 Nos.		
	5	Fully well equipped lab	1 No		
	6	Curing pump of 1.5 hp capacity with set of pipe	3 Nos		
	7	Steel centering plates/centering pipes	1500 M <sup>2</sup>		
	8	Auto level instrument	1 No.		
<b>Note :-</b> For work costing above Rs. 50.00 Cr. Additional equipments/Machines shall be deployed as requirement.					

**FINANCIAL BID**  
**(To Be Contained in Envelope-C)**

NAME OF WORK - \_\_\_\_\_ - \_\_\_\_\_ -

I/We hereby bid for the execution of the above work within the time specified at the **rate (in figures)\_\_\_\_\_ (in words)\_\_\_\_\_ percent below/ above or at par** based on the Bill of Quantities and item wise rates given therein in all respects and in accordance with the specifications, designs, drawings and instructions in writing in all respects in accordance with such conditions so far as applicable. I/We have visited the site of work and am/ are fully aware of all the difficulties and conditions likely to affect carrying out the work. I/We have fully acquainted myself/ourselves about the conditions in regard to accessibility of site and quarries/kilns, nature and the extent of ground, working conditions including stacking of materials, installation of tools and plant conditions effecting accommodation and movement of labour etc. required for the satisfactory execution of contract.

Should this bid be accepted, I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract annexed hereto so far as applicable, or in default thereof to forfeit and pay to the Chief Municipal Officer or his successors in office the sums of money mentioned in the said conditions.

**Note:**

- i. *Only one rate of percentage above or below or at par based on the Bill of Quantities and item wise rates given therein shall be quoted.*
- ii. *Percentage shall be quoted in figures as well as in words. If any difference in figures and words is found lower of the two shall be taken as valid and correct rate. If the bidder is not ready to accept such valid and correct rate and declines to furnish performance security and sign the agreement his earnest money deposit shall be forfeited.*
- iii. *In case the percentage "above" or "below" is not given by a bidder, his bid shall be treated as non-responsive.*
- iv. *All duties, taxes, and other levies payable by the bidder shall be included in the percentage quoted by the bidder.*

**Signature of Bidder**  
**Name of Bidder**

The above bid is hereby accepted by me on behalf of the Chief Municipal Officer  
dated the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

**Signature of Officer by whom accepted**



**LETTER OF ACCEPTANCE (LOA)**

No. \_\_\_\_\_

Dated: \_\_\_\_\_

To,

M/s. \_\_\_\_\_

(Name and address of the contractor)

Subject: \_\_\_\_\_

(Name of the work as appearing in the bid for the work)

Dear Sir (s),

Your bid for the work mentioned above has been accepted on behalf of the Chief Municipal Officer at your bided percentage\_\_ below/ above or at par the Bill of Quantities and item wise rates given therein.

You are requested to submit within 15 (Fifteen) days from the date of issue of this letter:

- a. The performance security/ performance guarantee of Rs. \_\_\_\_\_(in figures) (Rupees\_\_\_\_\_in words only).

The performance security shall be in the shape of term deposit receipt/ bank guarantee of any nationalized / schedule commercial bank valid up to three months after the expiry of defects liability period.

- b. Sign the contract agreement.

Please note that the time allowed for carrying out the work as entered in the bid is \_\_\_\_\_months including/ excluding rainy season, shall be reckoned from the date of signing the contract agreement.

Signing the contract agreement shall be reckoned as intimation to commencement of work and no separate letter for commencement of work is required. Therefore, after signing of the agreement, you are directed to contact the Engineer-in-charge for taking the possession of site and necessary instructions to start the work.

**Yours Faithfully**

**Executive Engineer**

## PERFORMANCE SECURITY

To

\_\_\_\_\_ [name of Employer]

\_\_\_\_\_  
\_\_\_\_\_ [address of Employer]

WHEREAS \_\_\_\_\_ [name and address of Contractor]

(Hereinafter called "the Contractor") has undertaken, in pursuance of Letter of Acceptance No. \_\_\_\_\_ dated \_\_\_\_\_ to execute \_\_\_\_\_ [name of Contract and brief description of Works] (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of \_\_\_\_\_ [amount of guarantee]\* \_\_\_\_\_ (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of \_\_\_\_\_ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 3 (three) months from the date of expiry of the Defect Liability Period.

Signature, Name and Seal of the guarantor \_\_\_\_\_

Name of Bank \_\_\_\_\_

Address \_\_\_\_\_

Phone No., Fax No., E-mail Address, of Signing Authority \_\_\_\_\_

Date \_\_\_\_\_

\* An amount shall be inserted by the Guarantor, representing the percentage the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.

## SECTION 3

### Conditions of Contract Part – I General Conditions of Contract [GCC]

#### Table of Clauses of GCC

Clause No	Particulars	Clause No	Particulars
	<b>A. General</b>	21	Payments for Variations and / or Extra Quantities
1	Definitions	22	No compensation for alterations in or restriction of work to be carried out.
2	Interpretations and Documents	23	No Interest Payable
3	Language and Law	24	Recovery from Contractors
4	Communications	25	Tax
5	Subcontracting	26	Check Measurements
6	Personnel	27	Termination by Engineer in Charge
7	Force Majeure	28	Payment upon Termination
8	Contractor's Risks	29	Performance Security
9	Liability For Accidents To Person	30	Security Deposit
10	Contractor to Construct the Works	31	Price Adjustment – N.A.
11	Discoveries	32	Mobilization and Construction Machinery Advance --N.A.
12	Dispute Resolution System	33	Secured Advance – N.A.
	<b>B. Time Control</b>	34	Payments Certificates
13	Programme		<b>E. Finishing the Contract</b>
14	Extension of Time	35	Completion Certificate
15	Compensation for Delay	36	Final Account
16	Contractor's quoted percentage		<b>F. Other Conditions of Contract</b>
	<b>C. Quality Control</b>	37	Currencies
17	Tests	38	Labour
18	Correction of Defects noticed during the Defect Liability Period	39	Compliance with Labour Regulations
	<b>D. Cost Control</b>	40	Audit and Technical Examination
19	Variations - Change in original Specifications, Designs, Drawings etc.	41	Death or Permanent Invalidity of Contractor
20	Extra Items	42	Jurisdiction

## A. General

### 1. DEFINITIONS

**Bill of Quantities:** means the priced and completed Bill of Quantities forming part of the Bid.

**Chief Engineer:** means Chief Engineer of the UADD

**Completion:** means completion of the work as certified by the Engineer-in-Charge, in accordance with provisions of agreement.

**Contract:** means the Contract between the Employer and the Contractor to execute, complete and/or maintain the work. Agreement is synonym of Contract and carries the same meaning wherever used.

**Contract Data:** means the documents and other information which comprise of the Contract.

**Contractor:** means a person or legal entity whose bid to carry out the work has been accepted by the Employer.

**Contractor's bid:** means the completed bid document submitted by the Contractor to the Employer.

**Contract amount:** means the amount of contract worked out on the basis of accepted bid.

**Completion of work:** means completion of the entire contracted work. Exhaustion of quantity of any particular item mentioned in the bid document shall not imply completion of work or any component thereof.

**Day:** means the calendar day.

**Defect:** means any part of the work not completed in accordance with the specifications included in the contract.

**Department:** means Department of the State Government viz. Water Resources Department, Public Works Department, Public Health Engineering Department, Rural Engineering Service and any other organization which adopts this document.

**Drawings:** means drawings including calculations and other information provided or approved by the Engineer-in-Charge.

**Employer:** means the party as defined in the **Contract Data**, who employs the Contractor to carry out the work. The Employer may delegate any or all functions to a person or body nominated by him for specified functions. The word Employer / Government / Department wherever used denote the Employer.

**Engineer:** means the person named in the **Contract Data**.

**Engineer in charge:** means the person named in the **Contract Data**.

**Equipment:** means the Contractor's machinery and vehicles brought temporarily to the Site for execution of work.

**Government:** means Government of Madhya Pradesh.

**In Writing:** means communicated in written form and delivered against receipt.

**Material:** means all supplies, including consumables, used by the Contractor for

incorporation in the work.

**Superintending Engineer:** means Superintending Engineer-in-Charge of the Circle concerned.

**Stipulated period of completion:** means the period in which the Contractor is required to complete the work. The stipulated period is specified in the **Contract Data**.

**Specification:** means the specification of the work included in the Contract and any modification or addition made or approved by the Engineer-in-Charge.

**Start Date:** means the date of signing of agreement for the work.

**Sub-Contractor:** means a person or corporate body who has a Contract with the Contractor, duly authorized to carry out a part of the construction work under the Contract.

**Temporary Work:** means work designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the work.

**Tender/Bid, Tenderer/Bidder:** are the synonyms and carry the same meaning where ever used.

**Variation:** means any change in the work which is instructed or approved as variation under this contract.

**Work:** The expression "work" or "works" where used in these conditions shall unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the work by virtue of contract, contracted to be executed, whether temporary or permanent and whether original, altered, substituted or additional.

## **2. INTERPRETATIONS AND DOCUMENTS**

### **Interpretations**

In the contract, except where the context requires otherwise:

- a. words indicating one gender include all genders;
- b. Words indicating the singular also include the plural and vice versa.
- c. provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing;
- d. "written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;

### **Documents Forming Part of Contract:**

1. NIT with all amendments.
2. Instructions to Bidders (ITB, Bid Data Sheet with all Annexures)
3. Conditions of Contract:
  - i. Part I General Conditions of Contract and the Contract Data; with all Annexures
  - ii. Part II Special Conditions of Contract.
4. Specifications
5. Drawings
6. Bill of Quantities
7. Technical and Financial Bid
8. Agreement, and
9. Any other document(s), as specified.

### 3. Language and Law

The language of the Contract and the law governing the Contract are stated in the Contract Data.

### 4. Communications

All certificates, notice or instruction to be given to the Contractor by Employer/Engineer shall be sent to the address or contact details given by the Contractor in [Annexure H of ITB]. The address and contact details for communication with the Employer/Engineer shall be as per the details given in the Contract Data. Communication between parties that are referred to in the conditions shall be in writing. The notice sent by facsimile (fax) or other electronic means (email) shall also be effective on confirmation of the transmission. The notice sent by registered post or speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service. In case of any change in address for communication, the same shall be immediately notified to Engineer-in-Charge.

### 5. Subcontracting

Subcontracting shall be permitted for contracts of value more than amount specified in the Contract Data with following conditions.

- a. The Contractor may subcontract up to 25 percent of the contract price with the approval of the Employer in writing, but will not assign the Contract. Subcontracting shall not alter the Contractor's obligations.
- b. Following shall not form part of subcontracting:
  - i. Hiring of labour through a labour contractor.
  - ii. The purchase of Materials to be incorporated in the works.
  - iii. Hiring of plant & machinery
- c. The sub-contractor will have to be registered in the **appropriate category** in the centralized registration system for contractors of the GoMP.

### 6. Personnel

The Contractor shall employ for the construction work and routine maintenance the technical personnel as provided in the Annexure I-3 of Bid Data Sheet, if applicable. If the Contractor fails to deploy required number of technical staff, recovery as specified in the Contract Data will be made from the Contractor.

If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within three days and has no further connection with the Works in the Contract.

## 7. Force Majeure

The term "Force Majeure" means an exceptional event or circumstance:

- (a) Which is beyond a Party's control,
- (b) Which such Party could not reasonably have provided against before entering into the Contract,
- (c) Which, having arisen, such Party could not reasonably have avoided or overcome, and
- (d) Which is not substantially attributable to the other Party.

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- (i) War, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (ii) Rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
- (iii) Riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel,
- (iv) Munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
- (v) Natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

7.2. In the event of either party being rendered unable by force majeure to perform any duty or discharge any responsibility arising out of the contract, the relative obligation of the party affected by such force majeure shall upon notification to the other party be suspended for the period during which force majeure event lasts. The cost and loss sustained by either party shall be borne by respective parties.

For the period of extension granted to the Contractor due to Force Majeure the price adjustment clause shall apply but the penalty clause shall not apply. It is clarified that this sub clause shall not give eligibility for price adjustment to contracts which are otherwise not subject to the benefit of price adjustment clause.

The time for performance of the relative obligation suspended by the force majeure shall stand extended by the period for which such cause lasts. Should the delay caused by force majeure exceed **twelve** months, the parties to the contract shall be at liberty to foreclose the contract after holding mutual discussions.

## 8. Contractor's Risks

All risks of loss or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract are the responsibility of the Contractor.

All risks and consequences arising from the inaccuracies or falseness of the documents, drawing, designs, other documents and/or information submitted by the contractor shall be the responsibility of the Contractor alone, notwithstanding the fact that the designs/ drawings or other documents have been approved by the department.

#### **9. Liability for Accidents to Person**

The contractor shall be deemed to have indemnified and saved harmless the Government against all action, suits, claims, demands, costs etc. arising in connection with injuries suffered by any persons employed by the contractor or his subcontractor for the works whether under the General law or under workman's compensation Act, or any other statute in force at the time of dealing with the question of the liability of employees for the injuries suffered by employees and to have taken steps properly to ensure against any claim there under.

#### **10. Contractor to Construct the Works**

The Contractor shall construct, install and maintain the Works in accordance with the Specifications and Drawings as specified in the **Contract Data**.

In the case of any class of work for which there is no such specification as is mentioned in Contract Data, such work shall be carried out in accordance with the instructions and requirement of the Engineer-in-charge.

The contractor shall supply and take upon himself the entire responsibility of the sufficiency of the scaffolding, timbering, machinery, tools and implements, and generally of all means used for the fulfilment of this contract whether such means may or may not be approved or recommended by the Engineer.

#### **11. Discoveries**

Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

#### **12. Dispute Resolution System**

No dispute can be raised except before the Competent Authority as defined in Contract Data in writing giving full description and grounds of dispute. It is clarified that merely recording protest while accepting measurement and/or payment shall not be taken as raising a dispute.

No dispute can be raised after 45 days of its first occurrence. Any dispute raised after expiry of 45 days of its first occurrence shall not be entertained and the Employer shall not be liable for claims arising out of such dispute.

The **Competent Authority** shall decide the matter within 45 days.

Appeal against the order of the Competent Authority can be preferred within 30 days to the **Appellate Authority** as defined in **the Contract Data**. The Appellate Authority shall decide the dispute within 45 days.

Appeal against the order of the Appellate Authority can be preferred before the Madhya Pradesh Arbitration Tribunal constituted under Madhya Pradesh *Madhyastham Adhikaran Adhiniyam*, 1983.

The Contractor shall have to continue execution of the Works with due diligence notwithstanding pendency of a dispute before any authority or forum.

## **B. Time Control**

### **13. Programme**

Within the time stated in the Contract Data, the Contractor shall submit to the Engineer for approval a Programme showing the general methods, arrangements, order and timing for all the activities for the construction of works.

**The program shall be supported with all the details regarding key personnel, equipment and machinery proposed to be deployed on the works for its execution.** The contractor shall submit the list of equipment and machinery being brought to site, the list of key personnel being deployed, the list of machinery/equipment being placed in field laboratory and the location of field laboratory along with the Programme.

An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities.

The Contractor shall submit to the Engineer for approval an updated Programme at intervals no longer than the period stated in the **Contract Data**. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the **Contract Data** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.

The Engineer's approval of the Programme shall not alter the Contractor's obligations.

## **14. Extension of Time**

14.1. If the Contractor desires an extension of time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other grounds, he shall apply, in writing, to the Engineer-in-charge, on account of which he desires such extension. **Engineer-in-Charge shall forward the aforesaid application to the Competent Authority as prescribed.**

The competent authority shall grant such extension at each such occasion within a period of 30 days of receipt of application from contractor and shall not wait for finality of work. Such extensions shall be granted in accordance with provisions under **clause- 15** of this agreement.

In case the work is already in progress, the Contractor shall proceed with the execution of the works, including maintenance thereof, pending receipt of the decision of the competent authority as aforesaid with all due diligence.

## **15. Compensation for delay**

The time allowed for carrying out the work, as entered in the agreement, shall be strictly observed by the Contractor.

The time allowed for execution of the contract shall commence from the date of signing of the agreement. It is clarified that the need for issue of work order is dispensed with.

In the event milestones are laid down in the Contract Data for execution of the works, the contractor shall have to ensure strict adherence to the same.

Failure of the Contractor to adhere to the timelines and/or milestones shall attract such liquidated damages as is laid down in the Contract Data.

In the event of delay in execution of the Works as per the timelines mentioned in the Contract Data the Engineer-in-charge shall retain from the bills of the Contractor amount equal to the liquidated damages leviable until the Contractor makes such delays good. However, the Engineer-in-charge shall accept bankable security in lieu of retaining such amount.

If the Contractor is given extension of time after liquidated damages have been paid, the Engineer in Charge shall correct any over payment of liquidated damages by the Contractor in the next payment certificate.

In the event the Contractor fails to make good the delay until completion of the stipulated contract period (including extension of time) the sum so retained shall be adjusted against the liquidated damages levied.

## **16. Contractor's quoted percentage**

The Contractor's quoted percentage rate referred to in the "Bid for works" will be deducted/ added from/to the net amount of the bill after deducting the cost of material supplied by the department.

## **C. Quality Control**

### **17. Tests**

The Contractor shall be responsible for:

- a. Carrying out the tests prescribed in specifications, and
- b. For the correctness of the test results, whether preformed in his laboratory or elsewhere.

The contractor shall have to establish field laboratory within the time specified and having such equipments as are specified in the **Contract Data**.

Failure of the Contractor to establish laboratory shall attract such penalty as is specified in the **Contract Data**.

Ten percent of the mandatory tests prescribed under the specifications shall be got carried out through Laboratories accredited by National Accreditation Board of Laboratories (NABL) by the Engineer-In –Charge and the cost of the such testing shall be deducted from the payments due to Contractor.

### **18. Correction of Defects noticed during the Defect Liability Period**

The Defect Liability Period of work in the contract shall be as per the **Contract Data**.

The Contractor shall promptly rectify all defects pointed out by the Engineer well before the end of the Defect Liability Period. The Defect Liability Period shall automatically stand extended until the defect is rectified.

If the Contractor has not corrected a Defect pertaining to the Defect Liability Period to the satisfaction of the Engineer, within the time specified by the Engineer, the Engineer will assess the cost of having the Defect corrected, and the cost of correction of the Defect shall be recovered from the Performance Security or any amount due or that may become due to the contractor and other available securities.

## **D. Cost Control**

### **19. Variations - Change in original Specifications, Designs, and Drawings etc.**

The Engineer-in-charge shall have power to make any alterations, omissions or additions to or substitutions in the original specifications, drawings, designs and instructions, that may appear to him to be necessary during the progress of the work and the contractor shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-charge, and such alterations, omission, additions or substitutions shall not invalidate the contract and any altered, additional or substituted work, which the contractor may be directed to do in the manner above specified, as part of the work, shall be carried out by the contractor on the same conditions in all respects on which he agrees to do the main work.

The time for the completion of the work shall be adjusted in the proportion that the altered, additional or substituted work bears to the original contract work and the certificate of the Engineer-in-charge shall be conclusive as to such proportion.

## 20. Extra items

20.1 All such items which are not included in the priced BOQ shall be treated as extra items.

## 21. Payments for Variations and / or Extra Quantities

The rates for such additional (Extra quantity), altered or substituted work / extra items under this clause shall be worked out in accordance with the following provisions in their respective order:-

- a. The contractor is bound to carry out the additional (Extra quantity), work at **the same rates** as are specified in the contract for the work.
- b. If the item is not in the priced BOQ and is included in the SOR of the department, the rate shall be arrived at by applying the quoted tender percentage on the SOR rate.
- c. **If the rates for the altered or substituted work are not provided in applicable SOR** - such rates will be derived from the rates for a similar class (type) of work as is provided in the contract (priced BOQ) for the work.
- d. **If the rates for the altered, substituted work cannot be determined in the manner specified in the sub clause (c) above** - then the rates for such composite work item shall be worked out on the basis of the concerned Schedule of Rates minus/plus the percentage quoted by the contractor.
- e. If the rates for a particular part or parts of the item is not in the Schedule of Rates and the rates for the altered, or substituted work item cannot be determined in the manner specified in sub clause (b) to (d) above, the rate for such part or parts will be determined by the Competent Authority as defined in the Contract Data on the basis of the rate analysis derived out of prevailing market rates when the work was done.
- f. But under no circumstances, the contractor shall suspend the work on the plea of non-acceptability of rates on items falling under sub clause (a) to (d). In case the contractor does not accept the rate approved by the Engineer in Charge for a particular item, the contractor shall continue to carry out the item at the rates determined by the Competent Authority. The decision on the final rates payable shall be arrived at through the dispute settlement procedure.

**22. No compensation for alterations in or restriction of work to be carried out.**

If at any time after the commencement of the work, the Engineer-in-charge, for any reason whatsoever, not require the whole or any part of the work as specified in the bid to be carried out; the Engineer-in-charge shall give notice in writing of the fact to the Contractor and withdraw that whole or any part of the work.

The Contractor shall have no claim to any payments or compensation whatsoever, on account of any profit or advantage which he might have derived from the execution of work in full or on account of any loss incurred for idle men and machinery due to any alteration or restriction of work for whatsoever reason.

The Engineer-in-charge may supplement the work by engaging another agency to execute such portion of the work, without prejudice to his rights.

**23. No Interest Payable**

No interest shall be payable to the Contractor on any payment due or awarded by any authority.

**24. Recovery from Contractors**

Whenever any claim against the Contractor for the payment arises under the contract, the Department may be entitled to recover such sum by:

- (a) Appropriating, in part or whole of the Performance Security and Additional Performance Security, if any; and/or Security Deposit and / or any sums payable under the contract to the contractor.
- (b) If the amount recovered in accordance with (a) above is not sufficient, the balance sum may be recovered from any payment due to the contractor under any other contract of the department, including the securities which become due for release.
- (c) The department shall, further have an additional right to effect recoveries as arrears of land revenue under the *M.P. Land Revenue Code*.

**25. Tax**

The rates quoted by the Contractor shall be deemed to be inclusive of the commercial tax and other levies, duties, cess, toll, taxes of Central and State Governments, local bodies and authorities.

The liability, if any, on account of quarry fees, royalties, octroi and any other taxes and duties in respect of materials actually consumed on public work, shall be borne by the Contractor.

Any changes in the taxes due to change in legislation or for any other reason shall not be payable to the contractor.

## 26. Check Measurements

The department reserves to itself the right to prescribe a scale of check measurement of work in general or specific scale for specific works or by other special orders.

Checking of measurement by superior officer shall supersede measurements by subordinate officer(s), and the former will become the basis of the payment.

Any over/excess payments detected, as a result of such check measurement or otherwise at any stage up to the date of completion of the defect liability period specified in this contract, shall be recoverable from the Contractor, as per **clause 24** above.

## 27. Termination by Engineer in Charge

If the Contractor fails to carry out any obligation under the Contract, the Engineer in Charge may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.

The Engineer in Charge shall be entitled to terminate the Contract if the Contractor

- a) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract;
- b) the Contractor is declared as bankrupt or goes into liquidation other than for approved reconstruction or amalgamation;
- c) without reasonable excuse fails to comply with the notice to correct a particular defect within a reasonable period of time;
- d) the Contractor does not maintain a valid instrument of financial security as prescribed;
- e) the Contractor has delayed the completion of the Works by such duration for which the maximum amount of liquidated damages is recoverable;
- f) If the Contractor fails to deploy machinery and equipment or personnel or set up a field laboratory as specified in the **Contract Data**;
- g) If the contractor, in the judgment of the Engineer in charge has engaged in corrupt or fraudulent practices in competing for or in executing the contract;
- h) Any other fundamental breaches as specified in the **Contract Data**.

In any of these events or circumstances, the Engineer in Charge may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub-paragraph (b) or (g) of **clause 27.2**, the Engineer in Charge may terminate the Contract immediately.

Notwithstanding the above, the Engineer-in-Charge may terminate the Contract for convenience by giving notice to the Contractor.

## **28. Payment upon Termination**

If the contract is terminated under **clause 27.3**, the Engineer shall issue a certificate for value of the work accepted on final measurements, less Advance Payments and Penalty as indicated in the **Contract Data**. The amount so arrived at shall be determined by the **Engineer-in-Charge** and shall be final and binding on both the parties.

Payment on termination under **clause 27.4** above -

If the Contract is terminated under **clause 27.4** above, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be recovered as per **clause 24** above.

## **29. Performance Security**

The Contractor shall have to submit performance security and additional performance security, if any, as specified in the **Bid Data Sheet** at the time of signing of the contract. The contractor shall have to ensure that such performance security and additional performance security, if any, remains valid for the period as specified in the Contract Data.

## **30. Security Deposit-**

Security Deposit shall be deducted from each running bill at the rate as specified in the **Contract Data**. The total amount of Security Deposit so deducted shall not exceed the percentage of Contract Price specified in the **Contract Data**.

The security deposit may be replaced by equivalent amount of bank guarantee or fixed deposit receipt assigned to the Employer, with validity up to 3 (three) months beyond the completion of Defect Liability Period/ extended Defect Liability Period.

The Security Deposit shall be refunded on completion of Defect Liability Period.

### 31. Price Adjustment

#### Applicability

1. Price adjustment shall be applicable only if provided for in the **Contract Data**.
2. The price adjustment clause shall apply only for the works executed from the date of signing of the agreement until the end of the initial intended completion date or extensions granted for reasons attributed to the Employer by the Engineer.
3. The Contractor shall not be entitled to any benefit arising from the price adjustment clause for extension in the contract period for reasons attributed to the Contractor.
4. In the Force Majeure event the price escalation clause shall apply.

#### Procedure

1. Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants in accordance with following principles and procedures and as per formula given in the **contract data**.
2. The price adjustable shall be determined during each **quarter** from the formula given in the **contract data**.
3. Following expression and meaning are assigned to the work done during each **quarter**:

**R** = Total value of work during the **quarter**. It would include the amount of secured advance granted, if any, during the quarter, less the amount of secured advance recovered, if any during the **quarter, less value of material issued by the department, if any, during the quarter**.

4. Weightages of various components of the work shall be as per the **Contract Data**.

To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.

The index relevant to any quarter, for which such compensation is paid, shall be the arithmetical average of the indices relevant of the calendar month.

For the purpose of clarity it is pointed out that the price adjustment may be either positive or negative, i.e. if the price adjustment is in favour of the Employer, the same shall be recovered from the sums payable to the Contractor.

### **32. Mobilization and Construction Machinery Advance**

Payment of advances shall be applicable if provided in the **Contract Data**.

If applicable, the Engineer in Charge shall make interest bearing advance payment to the contractor of the amounts stated in the **Contract Data**, against provision by the contractor of an unconditional Bank Guarantee in a form and by a nationalized/ scheduled banks, in the name as stated in the **Contract Data**, in amounts equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the contractor.

The rate of interest chargeable shall be as per **Contract Data**.

The construction machinery advance, if applicable, shall be limited to 80% of the cost of construction machinery and admissible only for new construction machinery.

The advance payment shall be recovered as stated in the **Contract Data** by deducting proportionate amounts from payment otherwise due to the Contractor. No account shall be taken of the advance payment or its recovery in assessing valuations of work done, variations, price adjustments, compensation events, or liquidated damages.

### **33. Secured Advance**

Payment of Secured Advance shall be applicable if provided in the **Contract Data**.

If applicable, the Engineer shall make advance payment against materials intended for but not yet incorporated in the Works and against provision by the contractor of an unconditional Bank Guarantee in a form and by a nationalized/ scheduled bank, in the name as stated in the **Contract Data**, in amounts equal to the advance payment. The guarantee shall remain effective until the advance payment has been adjusted, but the amount of the guarantee shall be progressively reduced by the amounts adjusted by the contractor.

The amount of secured advance and conditions to be fulfilled shall be as stipulated in the **Contract Data**.

The Secured Advance paid shall be recovered as stated in the **Contract Data**.

### **34. Payment Certificates**

The payment to the contractor will be as follows for construction work:

(a) The Contractor shall submit to the Engineer monthly statements of the value of the work executed less the cumulative amount certified previously, supported with detailed measurement of the items of work executed.

(b) The Engineer shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

- (c) The value of work executed shall be determined, based on the measurements approved by the Engineer/ Engineer-in-charge.
- (d) The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.
- (e) The value of work executed shall also include the valuation of Variations and Compensation Events.
- (f) All payments shall be adjusted for deductions for advance payment, security deposit, other recoveries in terms of contract and taxes at source as applicable under the law.
- (g) The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
- (h) Payment of intermediate certificate shall be regarded as payments by way of advance against the final payment and not as payments for work actually done and completed.
- (i) Intermediate payment shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or be considered as an admission of the due performance of the contractor any part thereof, in any respect or the occurring of any claim.
- (j) The payment of final bill shall be governed by the provisions of **clause 36 of GCC**.

## **E. Finishing the Contract**

### **35. Completion Certificate**

A Completion Certificate in the prescribed format in **Contract Data** shall be issued by the Engineer-in-Charge after physical completion of the Work.

After final payment to the Contractor, a Final Completion Certificate in the prescribed format in the **Contract Data** shall be issued by the Engineer-in-Charge.

### **36. Final Account**

The Contractor shall supply the Engineer with a detailed account of the total amount that the Contractor considers payable for works under the Contract within 21 days of issue of certificate of physical completion of works. The Engineer shall issue a Defects Liability Certificate and certify any payment that is due to the Contractor within 45 days of receiving the Contractor's account if it is correct and complete. If the account is not correct or complete, the Engineer shall issue within 45 days a schedule that states the scope of the corrections or additions that are necessary. If the Account is still unsatisfactory after it has been resubmitted, the matter shall be referred to the Competent Authority as defined in the Contract Data, who shall decide on the amount payable to the Contractor after hearing the Contractor and the Engineer in Charge.

In case the account is not received within 21 days of issue of Certificate of Completion as provided in clause 32.1 above, the Engineer shall proceed to finalise the account and issue a payment certificate within 28 days.

## **F. Other Conditions of Contract**

### **37. Currencies**

All payments will be made in Indian Rupees.

### **38. Labour**

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

### **39. Compliance with Labour Regulations**

39.1. During continuance of the Contract, the Contractor and his sub-Contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given in the **Contract Data**. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made their under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/byelaws/Acts/Rules/ regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct from any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer. The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

### **40. Audit and Technical Examination**

Government shall have the right to cause an audit and technical examination of the works and the final bill of the contract including all supporting vouchers, abstract etc. to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed by him to have been done under the contract and found not to, have been executed, the Contractor shall be liable to refund the amount of overpayment and it shall be lawful for Municipal Council, Neemuch to recover the same from him in the manner prescribed in **clause 24** above and if it is found that the Contractor was paid less than what was due to him, under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by Municipal Council, Neemuch to the Contractor.

### **41. Death or Permanent Invalidity of Contractor**

If the Contractor is an individual or a proprietary concern, partnership concern, dies

during the currency of the contract or becomes permanently incapacitated, where the surviving partners are only minors, the contract shall be closed without levying any damages/ compensation as provided for in **clause 28.2** of the contract agreement. However, if the competent authority is satisfied about the competence of the survivors, then the competent authority shall enter into a fresh agreement for the remaining work strictly on the same terms and conditions under which the contract was awarded.

**42. Jurisdiction**

This contract has been entered into the Municipal Council, Neemuch and its validity, construction, interpretation and legal effect shall be subjected to the courts at the place where this agreement is entered into. No other jurisdiction shall be applicable.

**[End of GCC]**

## CONTRACT DATA

GCC CLAUSE	PARTICULARS	DATA
1.14	Employer	Chief Municipal Officer, Neemuch
1.15	Engineer	EE, UADD Ujjain
1.16	Engineer in Charge	Asstt. Engineer, Municipal Council, Neemuch
1.22	Stipulated Period of Completion	<b>3 Months</b> (excluding Rainy Season)
3	Language & Law of Contract	English & Indian Contract Act 1872
4	Address & contact details of the Contractor	
	Address & contact details of the Employer/Engineer – phone, Fax, e-mail.	Chief Municipal Officer, Municipal Council, Neemuch 07423-220492 cmoneemuch@mpurban.gov.in
5	Subcontracting permitted for the Contract Value	<b>As Per Clause 5</b>
6	Technical Personnel to be provided by the contractor	<b>As per Rule</b>
	Penalty, if required Technical Personnel not employed	<b>As per Rule</b>
10	Specifications	As per 'Annexure - E'
	Drawings	As per 'Annexure - N'
12	Competent Authority for deciding dispute under Dispute Resolution System	Chief Municipal Officer, Neemuch S.E. UADD Bhopal
	Appellate Authority for deciding dispute under Dispute Resolution System	ENC UADD Chief Municipal Officer, Neemuch
13	Period for submission of updated construction program	-----
	Amount to be withheld for not submitting construction program in the prescribed period	-----
14	Competent Authority for granting Time Extension	<b>Chief Municipal Officer, Municipal Council, Neemuch</b>
15	Milestones laid down for the contract	<b>Yes</b>
	If Yes, details of Milestones	<b>As per 'Annexure - O</b>
	Liquidated damage	<b>As per 'Annexure - P</b>
17	List of equipment for lab	<b>As per 'Annexure - Q</b>
	Time to establish lab	<b>15 Days</b>
	Penalty for not establishing field Laboratory	<b>Rs. as per rule per month for the delay</b>
18	Defect Liability Period	<b>CC Road 60 months After Physical Completion or Work</b>
21	Competent Authority for determining the rate	As per UADD Rule/Municipal Council, Neemuch

27	Any other condition for breach of contract	-----
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<b>CONTRACT DATA</b>		
<b>GCC CLAUSE</b>	<b>PARTICULARS</b>	<b>DATA</b>
28	Penalty	Penalty Shall include : <b>Security deposit</b> as per clause 30 of General Conditions of Contract, and <b>Liquidated Damages</b> imposed as per clause 15 or <b>Performance Security (Guarantee) including Additional Performance Security (Guarantee)</b> , if any, as per clause 29 of General Conditions of Contract, whichever is higher
29	Performance guarantee (Security) shall be valid up to	<b>Till issue of physical Completion Certificate as per Clause 35.1</b>
30	Security Deposit to be deducted from each running bill	At the rate of <b>5%</b>
	Maximum limit of deduction of Security Deposit	Up to <b>5%</b> of Final Contract Amount.
31	Price adjustment shall be applicable	<b>NA</b>
31.1(1)	Price adjustment shall be applicable	<b>NA</b>
32	32.1 Mobilization and Construction Machinery Advance Applicable	<b>NA</b>
	32.2 If yes, Unconditional Bank Guarantee	<b>NA</b>
	Clause 32.3 If yes, Rate of interest chargeable on advances	<b>NA</b>
	Clause 32.4 If yes, Type & Amount of Advance payment that can be paid	<b>NA</b>
	Clause 32.5 If yes, Recovery of advance payment	<b>NA</b>
33	33.1 Secured Advance Applicable	<b>NA</b>
	33.2 if yes, Unconditional Bank Guarantee	<b>NA</b>
	33.2 if yes, Amount of Secured Advance	<b>NA</b>
	33.3 if yes, Conditions for secured advance	<b>NA</b>
	33.4 if yes, Recovery of Secured advance	The advance shall be repaid from each succeeding monthly payments to the extent materials [for which advance was previously paid] have been incorporated into the works
35	Completion Certificate – after physical completion of the Work	As per 'Annexure - U'

<b>CONTRACT DATA</b>		
<b>GCC CLAUSE</b>	<b>PARTICULARS</b>	<b>DATA</b>
	Final Completion Certificate – after final payment on completion of the Work	As per 'Annexure- V'
36	Competent Authority	<b>EE.UADD Ujjain</b>
39	Salient features of some of the major labour laws that are applicable	As per 'Annexure-W'
41	Competent Authority	<b>As per Rule</b>

## **Drawings**

List of drawings –

## **Details of Milestones**

### **Compensation for Delay**

If the contractor fails to achieve the milestones, and the delay in execution of work is attributable to the contractor, the Employer shall retain an amount from the sums payable and due to the contractor as per following scale -

- i. Slippage up to 25% in financial target during the milestone under consideration  
— 2.5% of the work remained unexecuted in the related time span.
- ii. Slippage exceeding 25% but Up to 50% in financial target during the milestone under consideration  
- 5% of the work remained unexecuted in the related time span..
- iii. Slippage exceeding 50% but Up to 75% in financial target during the milestone under consideration  
-7.5% of the work remained unexecuted in the related time span..
- iv. Slippage exceeding 75% in financial target during the milestone under consideration  
-10% of the work remained unexecuted in the related time span.

**Note: For arriving at the dates of completion of time span related to different milestones, delays which are not attributable to the Contractor shall be considered. The slippage on any milestone is if made good in subsequent milestones or at the time of stipulated period of completion, the amount retained as above shall be refunded. In case the work is not completed within the stipulated period of completion along with all such extensions which are granted to the Contractor for either Employer's default or Force Majeure, the compensation shall be levied on the contractor at the rate of 0.05% per day of delay limited to a maximum of 10% of contract price.**

The decision of **Chief Municipal Officer, Neemuch** shall be final and binding upon both the parties.

**List of Equipment for Quality Control Lab**

## Price Adjustment

The formulas for adjustment of price are as follow:

R = Value of work as defined in Clause 31.2(3) of General Conditions of Contract

### Weightages\* of component in the work

S.No	Component	Percentage of component in the work
1	Cement - P <sub>c</sub>	
2	Steel - P <sub>s</sub>	
3	Bitumen - P <sub>b</sub>	
4	POL - P <sub>f</sub>	

\* Weightages of various components in the work shall be as determined by the competent technical sanction authority.

### Adjustment for cement component

(ii) Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid in accordance with the following formula:

$V_c = 0.85 \times P_c \times (C_1 - C_0) / C_0$   
V<sub>c</sub> = increase or decrease in the cost of work during the month under consideration due to changes in rates for cement.

C<sub>0</sub> = The all India average wholesale price index for **Grey** cement on the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi. ([www.eaindustry.nic.in](http://www.eaindustry.nic.in))

C<sub>1</sub> = The all India average wholesale price index for **Grey** cement for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi. ([www.eaindustry.nic.in](http://www.eaindustry.nic.in))

P<sub>c</sub> = Percentage of cement component of the work

Note : For the application of this clause, index of Grey Cement has been chosen to represent Cement group.

### Adjustment of steel component

(iii) Price adjustment for increase or decrease in the cost of steel procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_s \times /100 \times R \times (S_1 - S_0) / S_0$$

$V_s$  = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for steel.

$S_0$  = The all India wholesale price index for steel (**Bars and Rods**) on the date of opening of Bids as published by the *Ministry of Industrial Development, Government of India, New Delhi. (www.eaindustry.nic.in)*

$S_i$  = The all India average wholesale price index for steel (Bars and Rods) for the month under consideration as published by *Ministry of Industrial Development, New Delhi. (www.eaindustry.nic.in)*

$P_s$  = Percentage of steel component of the work.

*Note : For the application of this clause, index of Bars and Rods has been chosen to represent steel group.*

#### **Adjustment of bitumen component**

(iv) Price adjustment for increase or decrease in the cost of bitumen shall be paid in accordance with the following formula:

$$V_b = 0.85 \times P_b / 100 \times R \times (B_1 - B_0) / B_0$$

$V_b$  = Increase or decrease in the cost of work during the month under consideration due to changes in rates for bitumen.

$B_0$  = The official retail price of bitumen at the IOC depot at nearest center on the date of opening of Bids.

$B_i$  = The official retail price of bitumen of IOC depot at nearest center for the month under consideration.

$P_b$  = Percentage of bitumen component of the work.

#### **Adjustment of POL (fuel and lubricant) component**

( V ) Price adjustment for increase or decrease in cost of POL ( fuel and lubricant ) shall be paid in accordance with the following formula:

$$V_f = 0.85 \times P_f / 100 \times R \times ( F_i - F_0 ) / F_0$$

$V_f$  = Increase or decrease in the cost of work during the month under consideration due to changes in rates for fuel and lubricants.

$F_0$  = The official retail price of High Speed Diesel (HSD) at the existing consumer pumps of IOC at nearest center on the date of opening of Bids.

$F_i$  = The official retail price of HSD at the existing consumer pumps of IOC at nearest center for the 15<sup>th</sup> day of month of the under consideration.

$P_f$  = Percentage of fuel and lubricants component of the work.

*Note : For the application of this clause, the price of High Speed Diesel has been chosen to represent fuel and lubricants group.*

**Bank Guarantee Form for Mobilization and Construction Machinery Advance**

To

\_\_\_\_\_ [name of Employer]  
\_\_\_\_\_ [address of Employer]  
\_\_\_\_\_ [name of Contractor]

In accordance with the provisions of the General Conditions of Contract, clause 31 ("Mobilization and Construction Machinery Advance") of the above-mentioned Contract

\_\_\_\_\_ [name and address of Contractor] (hereinafter called "the Contractor") shall deposit with \_\_\_\_\_ [name of Employer] a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of \_\_\_\_\_ [amount of Guarantee]\* \_\_\_\_\_ [in words].

We, the \_\_\_\_\_ [bank of financial institution], as instructed by the Contractor, agree unconditionally and irrevocably as primary obligator and not as surety merely, the payment to \_\_\_\_\_ [name of Employer] on his first demand without whatsoever right of obligation or claim and without his first claim to the Contractor, in the amount not exceeding \_\_\_\_\_ [amount of guarantee]\* \_\_\_\_\_ [in words].

We further agree that no change or addition to or other modification of the terms of the Contractor or Work shall be performed under or of any of the Contract documents which may be made by \_\_\_\_\_ [name of Employer] and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until \_\_\_\_\_ [name of Employer] receives full repayment of the same amount from the Contractor.

Yours truly, Signature

and Seal : \_\_\_\_\_  
Name of Bank/Financial Institution: \_\_\_\_\_  
Address : \_\_\_\_\_  
Date : \_\_\_\_\_

\* An amount shall be inserted by the Bank or Financial Institution representing the amount of the Advance Payment, and denominated in Indian Rupees.

**Bank Guarantee Form for Secured Advance**

**INDENTURE FOR SECURED ADVANCES**

This indenture made the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_ BETWEEN \_\_\_\_\_ (hereinafter called the contractor which expression shall where the context so admits or implies be deemed to include his executors, administrators and assigns) or the one part and the Employer of the other part.

Whereas by an agreement dated \_\_\_\_\_ (hereinafter called the said agreement) the contractor has agreed.

AND WHEREAS the contractor has applied to the Employer that he may be allowed advanced on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said agreement for use in the construction of such of the works as he has undertaken to execute and as fixed for the finished work (inclusive of the cost of materials and labour and other charges)

AND WHEREAS the Employer has agreed to advance to the Contractor the sum of Rupees \_\_\_\_\_ on the security of materials the quantities and other particulars of which are specified in account of Secured Advance attached to the Running Account Bill for the said works by the Contractor on \_\_\_\_\_ and the Employer has reserved to himself the right of refusing any further advance or advances on the security of other materials brought by the Contractor to the site of the said works.

Now THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in consideration of the sum of Rupees \_\_\_\_\_ on or before the execution of these presents paid to the Contractor by the Employer (the receipt where of the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as a for said the Contractor doth hereby covenant and agree with the President and declare as follows:

That the said sum of Rupees \_\_\_\_\_ so advanced by the Employer to

- (1) The Contractor as aforesaid and all or any further sum of sums advanced as aforesaid shall be employed by the Contractor in or towards expending the execution of the said works and for no other purpose whatsoever.
- (2) That the materials details in the said Account of Secured Advances which have been offered to and accepted by the Employer as security are absolutely the Contractor's own propriety and free from encumbrances of any kind and the contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor indemnified the Employer against all claims to any materials in respect of which an advance has be made to him as aforesaid.
- (3) That the materials detailed in the said account Secured Advances and all other materials on the security of which any further advances may hereafter be made as aforesaid (hereafter called the materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Engineer.
- (4) That the Contractor shall make at his own cost all necessary and adequate arrangements for the custody and protection against all risks of the said materials while in use in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and on his own responsibility and shall at all times be open to inspection by the Engineer or any officer authorized by him. In the event of the said materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof the Contractor will forthwith replace the same with other materials of like quality or repair and make good the same required by the Engineer.
- (5) That the said materials shall not be removed from the site of the said works except with the written permission of the Engineer or an officer authorized by him on that behalf.

- (6) That the advances shall be repayable in full when or before the Contract receives payment from the Employer of the price payable to him for the said works under the terms and provisions of the said agreement. Provided that if any intermediate payments are made to the Contractor on account of work done than on the occasion of each such payment the Employer will be at liberty to make a recovery from the Contractor's bill for such payment by deducting there from the value of the said materials than actually used in the construction and in respect of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates at which the amounts of the advances made under these presents were calculated.
- (7) That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and conditions of the said agreement or of these presents the total amount of the advances that may still be owing of the Employer shall immediately on the happening of such default be repayable by the Contractor to the Employer together with interest thereon at twelve percent per annum from the date or respective dates of such advance or advances to the Contractor, and with all costs, charges, damages and expenses incurred by the Employer in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the Employer to repay and pay the same respectively to him accordingly.
- (8) That the Contractor hereby charges all the said materials with the repayment to the Employer of the said sum of Rupees \_\_\_\_\_ and any further sum of sums advanced as aforesaid and all costs, charges, damages and expenses payable under these presents PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the power contained therein if and whenever the covenant for payment and repayment here-in-before contained shall become enforceable and the money owing shall not be paid in accordance there with the Employer may at any time thereafter adopt all or any of the following courses as he may deem best:

- (a) Seize and utilize the said materials or any part thereof in the completion of the said works on behalf of the contractor in accordance with the provision in that behalf contained in the said agreement debiting the contractor with the actual cost of effecting such completion and the amount due to the contractor with the value of work done as if he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the contractor, he is to pay same to the Employer on demand.
- (b) Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain such moneys aforesaid repayable or payable to the Employer under these presents and hand over the surplus (if any) to the Contractor.
- (C) Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement.
- (9) That except in the event of default on the part of the contractor as aforesaid interest on the said advance shall not be payable.
- (10) That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been here-in-before expressly provided for the same shall be referred to the Employer whose decision shall be final and the provision of the Indian Arbitration Act for the time being in force shall apply to any such reference.

### **Physical Completion Certificate**

Name of Work:

.....  
.....  
.....

Agreement No. .... Date .....

Amount of Contract Rs .....

Name of Agency : .....

Used MB No. -----

Last measurement recorded

- a. Page No. & MB No. \_\_\_\_\_
- b. Date \_\_\_\_\_

Certified that the above mentioned work was physically completed on .....  
(date) and taken over on ..... (date) and that I have satisfied myself to best of  
my ability that the work has been done properly.

Date of issue

Executive Engineer

.....  
.....

### Final Completion Certificate

Name of Work:

.....  
.....  
.....

Agreement no. .... Date .....

Name of Agency : .....

Used MB No. -----

Last measurement recorded

a. Page No. & MB No. \_\_\_\_\_

b. Date \_\_\_\_\_

Certified that the above mentioned work was physically completed on .....  
(date) and taken over on ..... (date).

Agreed amount Rs. ....

Final Amount paid to contractor Rs. -----

Incumbency of officers for the work

I have satisfied myself to best of my ability that the work has been done properly.

Date of issue

Executive Engineer  
.....  
.....

### **Salient Features of Some Major Labour Laws Applicable**

- a) **Workmen Compensation Act 1923:** - The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) **Payment of Gratuity Act 1972:** - Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed the prescribed minimum years (say, five years) of service or more or on death the rate of prescribed minimum days' (say, 15 days) wages for every completed year of service. The Act is applicable to all establishments employing the prescribed minimum number (say, 10) or more employees.
- c) **Employees P.F. and Miscellaneous Provision Act 1952:** The Act Provides for monthly contributions by the Employer plus workers at the rate prescribed (say, 10% or 8.33%). The benefits payable under the Act are:
  - i. Pension or family pension on retirement or death as the case may be.
  - ii. Deposit linked insurance on the death in harness of the worker.
  - iii. Payment of P.F. accumulation on retirement/death etc.
- d) **Maternity Benefit Act 1951:** - The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) **Contract Labour (Regulation & Abolition) Act 1970:** - The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ prescribed minimum (say 20) or more contract labour.
- f) **Minimum Wages Act 1948:** - The Employer is to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of buildings, roads, runways is scheduled employment.
- g) **Payment of Wages Act 1936:** - It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) **Equal Remuneration Act 1979:** - The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against female employees in the matters of transfers, training and promotions etc.

- i) **Payment of Bonus Act 1965:** - The Act is applicable to all establishments employing prescribed minimum (say, 20) or more workmen. The Act provides for payments of annual bonus within the prescribed range of percentage of wages to employees drawing up to the prescribed amount of wages, calculated in the prescribed manner. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. States may have different number of employment size.
- j) **Industrial Disputes Act 1947:** - The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) **Industrial Employment (Standing Orders) Act 1946:** - It is applicable to all establishments employing prescribed minimum (say, 100, or 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and gets these certified by the designated Authority.
- l) **Trade Unions Act 1926:** - The Act lays down the procedure for registration of trade unions of workmen and Employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) **Child Labour (Prohibition & Regulation) Act 1986:** - The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulations of employment of children in all other occupations and processes. Employment of child labour is prohibited in building and construction industry.
- n) **Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act 1979:** - The Act is applicable to an establishment which employs prescribed minimum (say, five) or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as Housing, Medical-Aid, Travelling expenses from home up to the establishment and back etc.

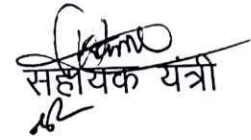
- o) The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996: - All the establishments who carry on any building or other construction work and employs the prescribed minimum (say, 10) or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p) **Factories Act 1948:** - The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing the prescribed minimum (say, 10) persons or more with aid of power or another prescribed minimum (say, 20) or more persons without the aid of power engaged in manufacturing process.

### SECTION 3

#### Conditions of Contract Part – II Special Conditions of Contract [SCC]

1. कार्य में खुदाई के दौरान यदि किसी टेलीफोन लाईन, पाइप लाइन को नुकसान पहुंचता है तो उसको दुरुस्त/नवीन करके देना होगा। जिसका पृथक से कोई भुगतान नहीं किया जावेगा।
2. जीएसटी का भुगतान नियमानुसार प्रचलित दरों पर पृथक से किया जावेगा।
3. कार्य की समस्त स्ट्रक्चरल/क्रस्ट/पेवमेण्ट डिजाईन शासकीय/पॉलीटेक्निक इंजीनियरिंग कॉलेज से बनवाई जाकर सक्षम अनुमोदन करवाया जाना अनिवार्य होगा, जिसका व्यय ठेकेदार को स्वयं वहन करना होगा। निकाय द्वारा किसी प्रकार का भुगतान नहीं किया जावेगा।
4. कांकीट वर्क के क्युब भरकर क्युब टेस्टिंग/कोर कटिंग एनएबीएल द्वारा अधिकृत लेबोरेटरी से ठेकेदार को स्वयं के व्यय पर कराकर टेस्ट रिपोर्ट प्रस्तुत करने के उपरांत ही देयकों का भुगतान किया जावेगा।
5. मुख्य अभियन्ता के पत्र क्रमांक 12711/या.प्र./दि.नि./2017 दिनांक 02.11.2017 अनुसार भुगतान की कार्यवाही की जावेगी।



  
सहायक यंत्री

## SECTION 4

### BILL OF QUANTITIES (BOQ)

General Description of work:.....

.....  
 ...

.....  
 ...

Probable Amount of Contract:

(Rs. In Figure) -----

(Rs. In Words) -----

S. No.	Particulars of Item of Work	Quantity	Unit	Rate	Amount (in figure)	Amount (in words)	Remarks
I	II	III	IV	V	VI	VII	VIII
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
<b>Total Amount (Rs. In Figure)</b>							

Total Amount (Rs. In Words) \_\_\_\_\_

Executive Engineer

.....

.....

**SECTION 5**  
**AGREEMENT FORM**  
**AGREEMENT**

This agreement, made on the \_\_\_\_\_ day of \_\_\_\_\_  
between **Chief Municipal Officer, Municipal Council, Neemuch** (name and address of Employer)  
(hereinafter called " the Employer) and -----(name  
and address of contractor) hereinafter called "the Contractor" of the other part.

Whereas the Employer is desirous that the Contractor execute **Construction for ENTRY GATE AND FINISHING WORK FOR W.NO. 14 INDOOR HALL** (name and identification number of Contract)  
(hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein, at a cost of Rs. 24795645+GST

\_\_\_\_\_  
NOW THIS AGREEMENT WITNESSED as follows:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be ready and construed as part of this Agreement viz.
  - i. Letter of Acceptance
  - ii. Contractor's Bid
  - iii. Condition of Contract: General and Special
  - iv. Contract Data
  - v. Bid Data
  - vi. Drawings
  - vii. Bill of Quantities and
  - viii. Any other documents listed in the Contract Data as forming part of the Contract.

In witnessed whereof the parties there to have caused this Agreement to be executed the day and year first before written.

The Common Seal of \_\_\_\_\_ was hereunto affixed in the presence of:

Signed, Sealed and Delivered by the said \_\_\_\_\_  
\_\_\_\_\_ in the presence of:

Binding Signature of Employer \_\_\_\_\_

Binding Signature of Contractor \_\_\_\_\_

मध्यप्रदेश शासन  
लोक निर्माण विभाग  
मंत्रालय, भोपाल

क्रमांक : एफ 53/16/2012/19/यो

भोपाल, दिनांक 01/01/2014

आदेश

- 1) राज्य शासन के समसंख्यक आदेश दिनांक 01/07/2013 से प्रदेश के सभी कार्य विभाग एवं कार्य विभाग की तरह कार्य करने वाले विभागों में प्रतिशत दर एवं आयटम दर पर निविदा आमंत्रित कर कार्य संपादन करने हेतु मध्यप्रदेश कार्यविभाग नियमावली 1983 के बाल्यूम II के एपेन्डिक्स 2.10, 2.10ए, 2.13, 2.13ए, 2.14 एवं 2.14ए अनुसार लागू प्रपत्रों को विलोपित कर उनके स्थान पर सिर्फ प्रतिशत दर आधारित नया निविदा प्रपत्र एपेन्डिक्स 2.10 के रूप में ~~निविदा प्रपत्र एपेन्डिक्स 2.10 को प्रमाण सैंस~~ ~~विद्युत् की राशि (GCC Clause 29)~~। दिनांक 01/07/2013 को जारी नया निविदा प्रपत्र एपेन्डिक्स 2.10 में परिलक्षित हुई लिपिकीय त्रुटियों को दूर करते हुए नया निविदा प्रपत्र ई-मेल से पीडीएफ फार्मेट में तथा डाक से मूल प्रति में पुनः संलग्न है।
- 2) समसंख्यक आदेश दिनांक 01/07/2013 में नये ~~निविदा प्रपत्र एपेन्डिक्स 2.10 को प्रमाण सैंस~~ ~~विद्युत् की राशि (GCC Clause 29)~~, मोबलाइजेशन एडवांस की राशि (GCC Clause 32) एवं ठेकेदार द्वारा कार्य छोड़ने की स्थिति में ठेकेदार को देय अंतिम बिल में से कटौती हेतु छोड़े गये शेष कार्य की राशि का प्रतिशत (GCC Clause 28) तथा प्राईज एडजेस्टमेंट (GCC Clause 31) देने हेतु निविदा की अनुमानित लागत (PAC) की सीमा का निर्धारण संबंधित प्रशासकीय विभागों को वित्त विभाग की सहमति से करने के निर्देश दिये गये हैं।
- 3) लोक निर्माण विभाग के जावक क्रमांक 463/13/19/यो दिनांक 12/12/13 से प्रेषित प्रस्ताव पर वित्त विभाग के जावक क्र. 751/1345/बी-9/चार दि. 26/12/13 से प्राप्त सहमति एनेक्सर-एक के रूप में संलग्न है। तदनुसार तत्काल प्रभाव से इसी निविदा प्रपत्र के आधार पर प्रतिशत दर आधारित निविदाएं आमंत्रित की जाए।
- 4) निविदा प्रपत्र एपेन्डिक्स 2.10 की शासकीय मुद्रणालय से मुद्रित मूल प्रति प्राप्त होने पर पृथक से भी भेजी जायेगी।

सहपत्र- उपरोक्तानुसार

मध्यप्रदेश के राज्यपाल के नाम से  
तथा आदेशानुसार

( विजय सिंह वर्मा )  
सचिव,

म.प्र.शासन, लोक निर्माण विभाग

Page 1 of 2

क्रमांक 297 QUAD/2014  
दिनांक 10/1/14

Principal Secretary (RADD)/D&A  
No 7764 Date 10-1-14

RE  
16509  
13-1-14

by E-mail at

SE(S) 13/1

9 JAN 2014

mp  
Purush

AE(RS)

प्रतिलिपि:-

- 1) अपर मुख्य सचिव, म.प्र.शासन, पंचायत एवं ग्रामीण विकास विभाग, भोपाल.
- 2) अपर मुख्य सचिव, म.प्र.शासन, वित्त विभाग.
- 3) महालेखाकार ग्वालियर / भोपाल (मध्यप्रदेश)
- 4) उपाध्यक्ष एवं सदस्य, पुर्नवास नर्मदाघाटी विकास प्राधिकरण,भोपाल
- 5) प्रमुख सचिव, म.प्र.शासन, नर्मदाघाटी विकास विभाग, भोपाल.
- 6) प्रमुख सचिव, म.प्र.शासन, किसान कल्याण एवं कृषि विभाग, भोपाल.
- 7) प्रमुख सचिव, म.प्र.शासन, जल संसाधन विभाग, भोपाल.
- 8) प्रमुख सचिव, म.प्र.शासन, उर्जा विभाग, भोपाल.
- 9) प्रमुख सचिव, म.प्र.शासन, सामान्य प्रशासन विभाग, भोपाल.
- 10) सचिव, म.प्र.शासन, आवास पर्यावरण विभाग, भोपाल.
- 11) सचिव, म.प्र.शासन, नगरीय प्रशासन एवं विकास विभाग, भोपाल.
- 12) सचिव, म.प्र.शासन, लोक स्वास्थ्य यांत्रिकी विभाग, भोपाल.
- 13) सचिव (समन्वय), मुख्य सचिव कार्यालय, म.प्र.शासन, भोपाल.
- 14) आयुक्त, जनसम्पर्क, मध्यप्रदेश, भोपाल.
- 15) प्रबन्ध संचालक, म.प्र. राज्य सड़क विकास निगम, भोपाल
- 16) मुख्य तकनीकी परीक्षक (सर्तकता), अरेरा हिल्स, भोपाल.
- 17) प्रमुख अभियंता, लोक निर्माण विभाग, भोपाल.
- 18) मुख्य कार्यपालन अधिकारी, म.प्र.ग्रामीण सड़क विकास प्राधिकरण, भोपाल.
- 19) निज सचिव, मा० मंत्रीजी, लोक निर्माण विभाग, म.प्र.शासन, भोपाल.

सचिव,  
मध्यप्रदेश शासन,  
लोक निर्माण विभाग

**PARTICULARS OF VALUES TO BE ASSIGNED FOR VARIOUS CLAUSES  
OF TENDER DOCUMENTS (Appendix 2.10) FOR P.W.D. WORKS**

(Effective from 01/01/2014)

(Approved vide Finance Deptt. No. 751/1345/B-9/□□ dated 26/12/2013)

Reference	Particulars	Values Applicable for PWD Works
GCC Clause 28	Payment upon Termination	GCC Clause 28.1 - If the contract is terminated under clause 27.3, the Engineer shall issue a certificate for the value of the work accepted on final measurements, less Advance Payments and penalty as indicated in the Contract Data. The amount so arrived at shall be determined by the Engineer-in-Charge and shall be final and binding on both the parties. Penalty Shall include : (a) Security Deposit as per clause 30 of General Conditions of Contract and (b) Liquidated Damages imposed as per clause 15 or Performance Security (Guarantee) including Additional Performance Security (Guarantee), if any, as per clause 29 of General Conditions of Contract, whichever is higher.
ITB Clause 22	Performance Security & Additional Performance Security	ITB Clause 22 1. Performance Security to be deposited @ 5(Five) % of contract amount. 2. Additional Performance Security to be deposited @ 5 (Five) % along with Performance Security only in case of road works in PWD with period of validity similar to that of Performance Security.
GCC Clause 30	Security Deposit	GCC Clause 30: Security Deposit to be deducted from each running bill @ of 5%
GCC Clause 31	Price Adjustment	GCC Clause 31 Price Adjustment shall be applicable only in case where the amount in NIT is more than Rs. 10 (Ten) Crores. This clause shall not have any bearing with the Contract Amount. GCC Clause 31, Annexure R The price Adjustment shall apply only in respect of Cement, Steel, Bitumen and POL components.
GCC Clause 32	Mobilization and Construction Machinery advance	GCC Clause 32 No Mobilization and Construction Machinery Advance.
GCC Clause 33	Secured Advance	GCC Clause 33 No Secured Advance.

(Vijay Singh Verma)  
Secretary  
Govt. of M.P.  
Public Works Department

मध्यप्रदेश शासन  
लोक निर्माण विभाग  
मंत्रालय, वल्लभ भवन  
भोपाल-462004

भोपाल, दिनांक 17-4-2015

क्रमांक एफ-58/7/2015/19/यो एतद् द्वारा राज्य शासन निर्माण कार्यो की निविदाओं में प्रतिस्पर्धा बढ़ाने के लिए निविदा पूर्व अर्हता (Pre-Qualification) की शर्तो का युक्तियुक्तकरण करने के संबंध में निम्नानुसार निर्णय लेता है:-

- निविदा पूर्व अर्हता निम्न परिस्थितियों में रखी जायेगी-
  - भवन निर्माण कार्य के संबंध में रुपये 2 करोड़ से अधिक की निविदा में।
  - भवन निर्माण कार्य के अतिरिक्त अन्य निर्माण कार्यो में रुपये 5 करोड़ से अधिक की निविदा में।
- भौतिक अनुभव के लिए निविदा पूर्व अर्हता के निर्धारण हेतु ऐसे आयटम्स ही लिये जाएंगे जिनकी लागत कुल निविदा लागत का 20 प्रतिशत या उससे अधिक हो।
- भौतिक अर्हता के निर्धारण हेतु निविदा पूर्व अर्हता में भौतिक स्वरूप के आयटम ही शामिल किये जाएंगे। विशिष्ट प्रकार के आयटमों को निविदा पूर्व अर्हता में शामिल नहीं किया जाएगा, उदाहरण स्वरूप-
  - Excavation and earth work in all types of strata
  - All types of RCC and masonry work आदि मूल स्वरूप के आयटम ही निविदा पूर्व अर्हता में शामिल किये जाएंगे।
- निविदा पूर्व अर्हता की जांच करते समय निविदाकार द्वारा प्रस्तुत दस्तावेजों के संबंध में यदि आवश्यक हो तो निविदाकार से या दस्तावेज जारी करने वाली अथॉरिटी (Authority) से स्पष्टीकरण (Clarification) अथवा पूरक जानकारी/दस्तावेज प्राप्त किया जा सकेगा। यहां यह स्पष्ट किया जाता है कि कोई भी नया दस्तावेज, जो निविदाकार ने निविदा के साथ प्रस्तुत नहीं किया है, को पृथक से प्राप्त नहीं किया जाएगा और न ही उस पर कोई विचार किया जाएगा।
- अमानत राशि (E.M.D.) में किसी भी कमी के संबंध में निविदाकार से न तो कोई स्पष्टीकरण मांगा जा सकेगा और न ही अमानत राशि में किसी भी कमी को दूर करने का अवसर दिया जाएगा।
- विशेष परिस्थितियों में बिन्दु क्रमांक (1) एवं (2) में यदि छूट देने की आवश्यकता हो तो संबंधित विभाग/उपक्रम के प्रमुख अभियंता प्रकरण विशेष में कारण लिपिबद्ध करते हुए छूट दे सकेंगे।

Principal Secretary (UD & ED)  
MOPRO, Bhopal, Date: 15/4/15

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क्रमांक 5999/QUAD/2015  
दिनांक 29/4/15

म0प्र0 के राज्यपाल के नामसे  
तथा अदेशानुसार

*Chandra Prakash*  
(चन्द्रप्रकाश अग्रवाल) 15/4/2015  
सचिव

म0प्र0 शासन लोक निर्माण विभाग  
भोपाल दिनांक 19/04/2015

पू0 क्रमांक एफ-58/7/2015/19/यो 2107  
प्रतिलिपि:-

- प्रमुख सचिव, मध्यप्रदेश शासन, जल संसाधन/लोक स्वास्थ्य यांत्रिकी/नगरीय कल्याण एवं विकास विभाग/लोक निर्माण विभाग, मंत्रालय भोपाल।
- प्रमुख अभियंता, जल संसाधन/लोक स्वास्थ्य यांत्रिकी/लोक निर्माण मध्यप्रदेश, भोपाल।  
की ओर सूचनार्थ एवं पालनार्थ।

*Chandra Prakash*  
15/4/2015  
सचिव

म0प्र0 शासन लोक निर्माण विभाग  
15/4/15

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संचालनालय, नगरीय प्रशासन एवं विकास  
मध्य प्रदेश, भोपाल

क्रमांक/12711/यां.प्रा./दिशा निर्देश/2017  
प्रति,

भोपाल दिनांक 2/11/2017

1. समस्त आयुक्त,  
नगर पालिक निगम,  
मध्य प्रदेश
2. समस्त मुख्य नगर पालिका अधिकारी  
नगर पालिक परिषद/नगर परिषद  
मध्य प्रदेश

विषय:- शहरी क्षेत्रों में सीमेंट कांक्रीट के पेवमेंट डिजाईन एवं निर्माण के लिये तकनीकी दिशा निर्देश।

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सीमेंट कांक्रीट की सड़कों के निर्माण से, कम संधारण लागत में लंबे समय तक अच्छी सड़क सेवायें प्राप्त होती हैं। साथ ही कांक्रीट सड़कों से धूल एवं कीचड़ से निजात मिलती है, इन कारणों से शहर की आंतरिक सड़कों के लिये सीमेंट कांक्रीट की सड़कें बनाने की मांग सदैव बनी रहती है।

अतः मुख्यमंत्री शहरी अधोसंरचना विकास योजना एवं अन्य योजनाओं के अतिरिक्त निकाय निधि सहित अन्य निधियों से नगरीय निकायों में सीमेंट कांक्रीट की सड़कें एवं नाली निर्माण बड़े पैमाने पर किया जाता है। संचालनालय को प्राप्त होने वाले प्रस्तावों के परीक्षण एवं विभिन्न नगरीय निकायों की आंतरिक सड़कों के निरीक्षण से स्पष्ट होता है कि कुछ सड़कों में :-

1. सीमेंट कांक्रीट की सड़कों की डिजाईन करते समय भारतीय सड़क कांग्रेस (IRC) द्वारा निर्धारित मानकों का पूर्णतः ध्यान नहीं रखा गया है।
2. निर्माण कार्य संपादित करते समय सीमेंट कांक्रीट के निर्धारित स्पेसिफिकेशन का पूर्णतः पालन नहीं किया गया है।

यह भी देखने में आया है कि या तो पेवमेंट ओवर डिजाईन होता है या फिर यह अन्डर डिजाईन होता है। फलतः या तो अति व्यय होता है या तो फिर पेवमेंट की उम्र कम हो जाती है। निर्माण कार्य में स्पेसिफिकेशन का पालन नहीं करने से कार्यों की गुणवत्ता पर विपरीत प्रभाव पड़ता है। इस प्रकार आवश्यकता है कि प्रदेश के नगरीय निकायों में सीमेंट

निरंतर....

कांक्रीट की सड़कें बनाने के लिए सरल भाषा में दिशा-निर्देश जारी किए जाए। अतः निम्न दिशा निर्देश पालनार्थ जारी किए जा रहे हैं। सुनिश्चित किया जाये कि सभी निर्माण कार्यों की तकनीकी स्वीकृति दिशा-निर्देशों के प्रावधान अनुसार ही जारी की जाये अन्यथा नहीं।

### 1. शहरी आंतरिक सड़कों का वर्गीकरण :-

शहर के आकार एवं प्रकार के अनुसार शहर में कुछ मार्ग तो मुख्य मार्ग होते हैं, जो कि सामान्यतः डबल लेन मार्ग है, जिन पर पर्याप्त भारी भार वाहनों का आवागमन होता है। बड़े शहरों में आंतरिक मुख्य मार्ग 04 लेन या 06 लेन भी हो सकते हैं। छोटे नगरों में तो कई स्थानों पर मुख्य मार्ग केवल सिंगल लेन होते हैं जिन पर भारी यातायात का आवागमन होता है। शहरों/नगरों के आंतरिक स्थानों से मुख्य मार्ग तक आने के लिए जो आंतरिक सड़कें हैं, वे सामान्यतः सिंगल लेन मार्ग होती हैं जिन पर मध्यम भार का यातायात होता है। हालांकि बड़े शहरों में यह मार्ग भी 02 लेन मार्ग हो सकता है, जिन पर भारी यातायात का भी आवागमन होता है। कई बार शहरों की आंतरिक गलियां सिंगल लेन से भी कम चौड़ाई की होती हैं। जिन पर पैदल या मात्र दुपहिया वाहनों का यातायात होता है। आंतरिक मार्गों का वर्गीकरण उन पर चलने वाले यातायात के आधार पर ही किया जाये।

### 2. सीमेंट कांक्रीट की डिजाईन:-

सीमेंट कांक्रीट की सड़कें बनाने के लिये भारतीय सड़क कांग्रेस ने मानक तथा विशेषीकरण तय किये हैं, जो कि निम्नानुसार है:-

- भारी भार वाहनों के यातायात वाली सड़कों के लिये Guidelines for the Design of Plain Jointed Rigid Pavements for Highways IRC : 58-2015 लागू होगा।
- मध्यम एवं कम यातायात वाली सड़कों के लिये Guidelines for the Design and Construction of Cement Concrete Pavements for Low Volume Roads. IRC:SP:62-2014 लागू होगा।
- सीमेंट कांक्रीट की सड़कों के मानक स्पेसिफिकेशन एवं निर्माण किए जाने की प्रक्रिया के लिये Standard Specifications and Code of Practice for Construction for Concrete Roads. IRC:15-2011 लागू होगा।

उपरोक्त मानकों एवं विशिष्टियों अनुसार डिजाईन करने हेतु आवश्यक होगा कि विद्यमान यातायात का आंकलन किया जाकर, कांक्रीट की पूर्व निर्धारित लाइफ-स्पान के आधार पर, भार वाहनों के प्रकार आदि के आधार पर, डिजाईन की जाये एवं डिजाईन अनुसार निर्धारित कांक्रीट के प्रकार का उपयोग किया जाये। बिना डिजाईन किये हुए कांक्रीट सड़कों का कार्य नहीं किया जायेगा।

जैसा की बिन्दु क्र. 01 में उल्लेखित है ऐसी शहरी गलियों जिनकी चौड़ाई 2.4 मीटर से कम है एवं जिनमें केवल पैदल, दोपहिया वाहनों, ऑटो रिक्शा एवं रिक्शा आदि जैसे हल्के भार वाहनों का यातायात होता है, में निर्माण कार्य करने के लिये पृथक से विस्तृत डिजाईन की आवश्यकता नहीं होगी। इन गलियों के लिये मॉडल स्टैंडर्ड सेक्शन्स जो कि परिशिष्ट- 2 के रूप में संलग्न है का उपयोग किया जा सकता है। स्टैंडर्ड सेक्शन्स में 2 प्रकार की नालियों को सेक्शन्स भी दिया गया है। जहाँ पेवमेंट से लगा कर ही नाली बनाना हो उन्ही स्थानों पर इन सेक्शन्स का उपयोग किया जाए अन्यथा नाली की डिजाईन स्थल की आवश्यकताओं के अनुरूप पृथक से की जाना होगी।

### 3. शहरी आंतरिक सड़कों में ड्रेनेज की व्यवस्था:-

शहरी क्षेत्रों में वर्षा जल एवं जल अपशिष्ट सामान्यतः सड़कों के किनारे पर बनी हुई नालियों से होते हुए क्रास ड्रेन्स में जाता है। इस जल के कारण पेवमेंट और उसके नीचे की सतहों पर भी गंभीर दुष्प्रभाव पड़ता है। अतः निम्नलिखित सावधानियां रखी जाए:-

- (क) प्रत्येक सड़क में निर्धारित केम्बर अनिवार्य रूप से रखा जाए ताकि सड़क के कैंरेज-वे और शोल्डर से बहकर पानी सीधे साईड ड्रेन्स में जाए। यह भी सुनिश्चित किया जाए कि साईड ड्रेन्स में उपरोक्त प्रकार से बहकर जाने वाले पानी के लिये किसी प्रकार अवरोध न हो।
- (ख) साईड ड्रेन्स का आकार उन नालियों में सामान्य रूप से बहनेवाले जल एवं वर्षा में बहने वाले जल के समुचित आंकलन के आधार पर किया जाए। साईड ड्रेन्स के लॉजीट्युडनल स्लोप सामान्य रूप से भूमि के स्लोप के अनुसार निर्धारित करने की आवश्यकता होती है परन्तु कुछ प्रकरणों में भूमि के स्लोप कम होते हैं जब कि नाली के स्लोप अधिक रखने की आवश्यकता होती है। ऐसे प्रकरणों में नाली की गहराई बढ़ाई जाती है। साईड ड्रेन्स तैयार करने के लिये समुचित सर्वेक्षण एवं जल का आंकलन करते हुए ही डिजाईन की जाए।
- (ग) यह सुनिश्चित किया जाए कि साईड ड्रेन का इन्टीग्रेशन ऐसे क्रास ड्रेन से अवश्य हो जो कि साईड ड्रेन में बहने वाले पानी को समाहित करें एवं अंततः मेजर ड्रेन तक ले जा सके।
- (घ) पेवमेंट के नीचे की सतहों का निर्धारण पेवमेंट के नीचे मिलने वाली मिट्टी के आधार पर किया जाता है। जिसका यथायोग्य ध्यान डिजाईन में रखा जाए परन्तु यदि ब्लैक कॉटन सॉईल या इस प्रकार की अन्य सॉईल, जिनमें परमियेबिलिटी कम होती है, में निश्चित रूप से ड्रेनेज लेयर का प्रावधान किया जाए ताकि पेवमेंट नीचे की मिट्टी से च्युरेटेड कंडिशन में पेवमेंट पर विपरीत प्रभाव न डाले।

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4. निर्माण एवं सावधानियां:-

Standard Specifications and Code of Practice for Construction for Concrete Roads. IRC:15-2011 में निर्धारित विधि से सीमेंट कांक्रीट सड़कों का निर्माण सुनिश्चित होना चाहिए। तथापि स्थल पर कार्य करने के लिये सरल भाषा में डिजाईन द्वारा निर्धारित सीमेंट कांक्रीट के अवयवों सीमेंट, रेत, गिट्टी एवं पानी का निर्धारण किया जाता है, उसी अनुपात में उपयोग किया जाये। अच्छी गुणवत्ता हेतु संलग्न परिशिष्ट- 1 "सीमेंट कांक्रीट सड़कों के निर्माण के लिए सामान्य दिशा-निर्देश" मानकों का पालन सुनिश्चित किया जाये।

5. सीमेंट कांक्रीट सड़कों के भुगतान की प्रक्रिया:-

सीमेंट कांक्रीट पेवमेंट का निर्माण निर्धारित स्पेसिफिकेशन के अनुसार हुआ है यह सुनिश्चित करने के लिये सीमेंट कांक्रीट पेवमेंट का भुगतान क्यूब टेस्ट एवं कोर कटिंग से निकले कोर की क्रशिंग स्ट्रेंथ के आधार पर ही किया जावेगा। भुगतान प्रक्रिया के लिये विस्तृत विवरण संलग्न सामान्य दिशा-निर्देश के अनुसार होगा।

संलग्न:-परिशिष्ट '1' एवं '2 (क)(ख)(ग)(घ)(च)(छ)

(प्रभाकान्त कटारे)

प्रमुख अभियंता

नगरीय प्रशासन एवं विकास

म.प्र. भोपाल

भोपाल दिनांक. 2/11/2017

पृ० क्रमांक/12712/यां.प्रा./दिशा निर्देश/2017  
प्रतिलिपि :-

- (1) प्रमुख सचिव, म.प्र. शासन, वित्त विभाग, भोपाल।
- (2) सचिव (समन्वय), मुख्य सचिव कार्यालय, भोपाल की ओर मंत्रि-परिषद निर्णय दिनांक 08 सितम्बर 2015 (आयटम क्रमांक 24) के पालन में।
- (3) आयुक्त, नगरीय प्रशासन एवं विकास, म.प्र. भोपाल।
- (4) विशेष सहायक, मान. मंत्रीजी, नगरीय विकास एवं आवास विभाग, भोपाल।
- (5) निज सचिव, मान. राज्यमंत्री जी, नगरीय विकास एवं आवास विभाग, भोपाल।
- (6) समस्त संभागीय संयुक्त संचालक, नगरीय प्रशासन एवं विकास, मध्य प्रदेश।  
की ओर सूचनार्थ अग्रेषित।

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प्रमुख अभियंता

नगरीय प्रशासन एवं विकास

म.प्र. भोपाल

संचालनालय, नगरीय प्रशासन एवं विकास  
म0प्र0, भोपाल

परिशिष्ट-1'

शहरी आंतरिक मार्गों में सीमेन्ट कांक्रीट सड़कों के निर्माण के लिए सामान्य दिशा-निर्देश

सीमेन्ट कांक्रीट सड़क के निर्माण के लिए भारतीय सड़क कांग्रेस द्वारा विस्तृत निर्देश स्पेसिफिकेशन तथा कोड ऑफ प्रेक्टिस निर्धारित की गई है। इन सड़कों के निर्माण के लिए IRC:15-2011 का पालन किया जाए। इस पब्लिकेशन में सीमेन्ट कांक्रीट सड़कों के लिए आवश्यक मटेरियल तथा निर्माण प्रक्रिया का विस्तृत विवरण दिया गया। प्रदेश के निकायों में निर्माण कार्य को व्यवहारिक रूप से संपन्न करने के लिए निम्नलिखित निर्देशों का पालन अनिवार्य रूप से किया जावे। :-

1. स्थल तैयार करना :-

- (a) प्रस्तावित मार्ग निर्माण हेतु मार्ग की बाहरी सीमा को चूने से अथवा डाग-वेलिंग द्वारा चिन्हांकित कर लिया जावे। नाली हेतु भी निशान इस प्रकार लगाये जायें ताकि नाली सड़क के किनारे किन्तु विद्यमान भवन रेखा से सटकर बने एवं अतिक्रमण की संभावनायें न रहे।
- (b) सीमेन्ट की सड़क का लेबिल उसके आसपास के घरों की कुर्सी से ऊंचा नहीं होना चाहिए अन्यथा बरसात का पानी सड़क से होकर घरों में घुसेगा। अतः मार्ग की ऊपरी सतह का लेबिल निर्धारित कर लिया जावे। ऊपरी सतह के लेबिल निर्धारण हेतु पूर्व निर्मित भवनों की कुर्सी की ऊंचाई एवं पानी का निकास ध्यान में रखा जाये एवं प्रस्तावित मार्ग की ऊपरी सतह को (लोहे/लकड़ी के पेंस अथवा पेन्ट से) चिन्हांकित कर लिया जाये।
- (c) जहां सड़क बनाना है, उस स्थान में खुदाई या भराई करके उस स्थान पर रौलर द्वारा इस प्रकार कुटाई की जावे कि कड़ा तथा समतल आधार तैयार हो जावे। यदि 100 मीटर से कम लंबाई की सड़क बनायी जा रही है तो बड़े रोलर के स्थान पर छोटे रोलर्स या कंपैक्टर का उपयोग किया जाकर पर्याप्त कुटाई की जाए।
- (d) यह सुनिश्चित किया जाए कि नालियों का स्लोप (ढलान) लगभग 1:10 या उससे अधिक हो तथा यह पानी बहकर किसी प्राकृतिक नाली अथवा निचले हिस्से में इस प्रकार जाना चाहिए कि आवासों अथवा उनके निस्तार में किसी प्रकार का व्यवधान न हो। साइड ड्रेन का इंटीग्रेशन नेचुरल ड्रेनेज से किया जावे।

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## 2. सीमेंट कांक्रीट सड़क की आधार परत तैयार करना:-

- (a) उप आधार परत: 3% केम्बर (3% क्रास स्लोप) के साथ तैयार की गई जमीन के ऊपर कुटी हुई मोटी रेत या GSB सामग्री की उप आधार परत डाली जाना है। उप आधार की परत की सामग्री, निर्धारित मोटाई से लगभग 30% अधिक रखते हुए बिछायी जाए। उसमें OMC की मात्रा में पानी छिड़का जाए अर्थात् सामग्री न तो बहुत अधिक गीली कीचड़ बनने जैसी हो और न सूखी रहे। पानी छिड़कने के उपरांत 8-10 टन वजन वाले प्लेन रोड रोलर से रोलिंग की जाए। यदि 2.50 मीटर से कम चौड़ी सड़क बनायी जा रही है तो यह कार्य छोटे रोलर्स या काम्पेक्टर्स से किया जाए।
- (b) सीमेंट कांक्रीट की सड़कों का उप आधार ड्राईलीन कांक्रीट (DLC) से समुचित पेवर सेंसर का उपयोग करते हुए होगा तथापि यदि सड़क की चौड़ाई 3.00 मी. से कम है तो आधार के रूप में M-10 (1:3:6) Mix का उपयोग 40 mm Metal के साथ किया जाये।
- (c) सतही मिट्टी यदि काली मिट्टी (B.C.Soil) है तो आधार कांक्रीट किया जाना वांछनीय होगा तथापि 2.50 मी. तक कम चौड़ी सड़को पर M-20 Grade CC करना पर्याप्त होगा। परिशिष्ट-2 अनुसार मार्गदर्शी सेक्शन संलग्न है।
- (d) मुख्य सड़क की उप आधार परत के साथ ही नालियों की उप आधार परत भी तैयार की जायेगी और उसकी पद्धति भी वही होगी जैसी कि मुख्य सड़क के उप आधार बनाने की है।
- (e) दिन में तेज धूप के कारण तापमान बढ़ता है एवं रात को तापमान में कमी आती है इसलिए यदि लगातार सीमेंट कांक्रीट की सड़क बनायी जाएगी तो उसमें बड़ी-बड़ी दरारें पड़ेंगी। इसे रोकने के लिए दो प्रकार के कदम उठाए जाते हैं। पहले कदम के रूप में एक पैनल की जगह छोड़कर दूसरे स्थान पर सुविधाजनक आकार जो कि 1.2 मीटर X 1.2 मीटर से कम न हो, पैनल्स में सीमेंट कांक्रीट की ढलाई की जाये। दूसरे कदम के रूप में प्रत्येक 4 मीटर की लंबाई के बाद फैलाव एवं सिकुडन के लिए ज्वाइंट काटा जाता है जो कि 5 से.मी मोटा तथा 5 से.मी गहराई का होता है इसमें रेत और बिटूमिन (झामर) भर दिया जाता है एवं जहाँ पैनल्स की ढलाई एक साथ करनी आवश्यक हो, वहाँ कटर मशीन से निर्धारित दूरी पर कटिंग किया जावे एवं ज्वाइंट्स को बिटूमिन से भरा जावे। सीमेंट कांक्रीट की सड़कों में यह दोनों कार्य अनिवार्य रूप से किए जायें।

## 3. सीमेंट कांक्रीट अवयवों का चयन :-

- (a) गिट्टी :- उपयोग की जाने वाली गिट्टी IS:383 के मानक अनुसार होगी। गिट्टी के उपयोग के पूर्व महत्वपूर्ण टेस्ट लॉस एंजेलस एब्रेसन टेस्ट एवं फ्लेकीनेस टेस्ट संपन्न कराकर उपयुक्तता सुनिश्चित की जावे।
- (b) सीमेंट :- सड़कों के कांक्रीट हेतु आर्डनरी पोर्टलेण्ड, सीमेंट 33, 43, 53 ग्रेड अथवा पोर्टलेण्ड पोजोलोना सीमेंट (PPC) का उपयोग किया जा सकता है। (PPC)

के मामले में तराई 24 दिन तक की जानी चाहिये। सीमेन्ट निर्माण दिनांक से 06 सप्ताह में उपयोग कर लिया जाये। 03 माह से अधिक पुरानी सीमेन्ट के टेस्ट संबंधित सहायक यंत्रों स्वयं करें एवं गुणवत्ता सुनिश्चित करेंगे।

(c) पानी :- सामान्यतः पीने योग्य पानी का उपयोग किया जाना चाहिए। जिसकी पी.एच. 6 से 8 के मध्य हो। पानी की मात्रा अक्सर बढ़ी हुयी पायी जाती है, ऐसा वर्क एबिलिटी बढ़ाने के कारण किया जाता है। वाटर सीमेन्ट रेशो सबसे अहम होता है। अधिक पानी से वर्क एबिलिटी बढ़ जाती है, किन्तु इससे कांक्रिट की स्ट्रेंथ कम हो जाती है। सामान्यतः OPC Cement के लिये यह अनुपात 0.45 होगा परन्तु यदि प्लाईएश के साथ ओ.पी.सी. सीमेंट या पी.पी.सी. सीमेंट का उपयोग हो तो यह 0.50 होना चाहिए।

4. कांक्रिट तैयार किया जाना :- पेवमेंट क्वालिटी कांक्रिट (PQC) का कांक्रिट बैच मिक्स प्लांट (ऑटोमेटिक बैच मिक्स प्लांट) से अवयवों की मात्रायें डिजाइन मिक्स अनुसार पूर्व निर्धारित कर किया जायेगा। पूर्व निर्धारित मात्राओं में कोई छेड़छाड़ हो, यह कार्य के प्रभारी उपयंत्रों एवं सहायक यंत्रों सुनिश्चित करेंगे। यदि आवश्यकता हो तो वर्कबिलिटी बढ़ाने हेतु मानकों अनुसार अधिकृत एडमिक्चर का उपयोग किया जाये। अतिरिक्त पानी किसी भी स्थिति में नहीं मिलाया जावेगा। PQC के अलावा कांक्रिट मिक्स मशीन मिक्सर से तैयार किया जावेगा, किन्तु हेण्ड मिक्सिंग की अनुमति नहीं होगी।

5. प्लेसमेंट :- एक जैसा सीमेन्ट कांक्रिट तैयार होने के उपरान्त उसे पूर्व में तैयार सुव्यवस्थित एवं गीली उप आधार परत पर निर्धारित पैनल के आकार में ही बिछाया जावे। यह सीमेन्ट कांक्रिट बिछाने के साथ 16-20 एम.एम. आकार के लोहे के सरिये से उसकी घसाईं की जावे ताकि उस कांक्रिट में बुलबुले या खाली स्पेस न रह जावे। निर्धारित मोटाई में तथा निर्धारित पैनल में सीमेन्ट कांक्रिट बिछाकर उसे अच्छी तरह समतल कर उसके ऊपर प्लेट बायब्रेटर चलाकर सीमेंट कांक्रिट का बायब्रेशन के साथ कम्पेक्शन किया जाना सुनिश्चित किया जावे। प्लेट बायब्रेटर में 45 से.मी. X 45 से.मी. आकार की प्लेट का उपयोग किया जा सकता है, बिना प्लेट बायब्रेटर के तैयार की गई सीमेन्ट कांक्रिट को किसी भी स्थिति में ग्राह्य नहीं किया जावे।

6. शटरिंग एवं सेपरेशन मेम्बरेन :- सीमेंट कांक्रिट के निर्माण शटरिंग का विशेष महत्व होता है। शटरिंग ऐसी हो कि वह कम्पेक्शन हेतु मजबूत सहारा दे। निडिल वाइब्रेटर एवं स्क्रीट वाइब्रेटर का इस्तेमाल कम्पेक्शन हेतु किया जावेगा। अतः शटरिंग हेतु स्टील गर्डर अथवा सी-चैनल का उपयोग मान्य होगा। आढ़ी-टेढ़ी ऐज निकलने का कारण खराब शटरिंग होती है। शटरिंग उचित लगे, इसे सुनिश्चित किया जावे। सब-बेस एवं कांक्रिट स्लेब के मध्य 125 माइक्रॉन मोटी पॉलिथीन का उपयोग किया जाये।

7. सर्विस डक्ट :- सीमेन्ट कांक्रिट रोड में सर्विस डक्ट का प्रावधान आवश्यक रूप से किया जाए, जिससे भविष्य में विभिन्न सर्विसेस जैसे-पाईप लाईन, टेलीफोन लाईन डालने के दौरान रोड को तोड़ने की आवश्यकता न पड़े। रोड निर्माण के दौरान जहाँ

पर सीवर लाईन या जलप्रदाय पाईप लाईन के कार्य कराया जाना स्वीकृत है, वहाँ पर सड़क का निर्माण कार्य सीवर लाईन एवं जलप्रदाय पाईप लाईन का कार्य होने के पश्चात ही कराया जावे।

8. तराई:- तराई सामान्य तौर पर पोन्डिंग करते हुए मानकों में निर्धारित अवधि तक तराई की जानी चाहिए तथापि नगरीय सड़कों की परिस्थितियों को देखते हुए जहाँ सड़कों को दो भागों में निर्मित किया जाना संभव न हो वहाँ गनी वैग्स बिछाते हुए न्यूनतम 20 दिन तराई की जाए, उसके बाद ही लाईट ट्रेफिक के लिए सड़क खोजी जाए।
9. क्वालिटी एश्योरेंस एवं क्वालिटी कंट्रोल:- सड़कों की गुणवत्ता तभी बनाए रखी जा सकती है जब क्वालिटी एश्योरेंस हेतु निर्धारित परीक्षणों (टेस्ट) को उनकी निर्धारित सैम्पलिंग प्रक्रिया, सैम्पल की आवृत्ति अनुसार न सिर्फ टेस्ट किए जाए अपितु उनके अभिलेख उचित पद्धति से संधारित किए जाए। कुछ टेस्ट साइट पर ही कार्य के दौरान सम्पन्न करने होते हैं, जिनमें सिल्ट कन्टेन्ट फ्लैकीनेस टेस्ट एवं स्लम्प टेस्ट महत्वपूर्ण हैं। इसके साथ ही कांक्रीट सड़कों के कांक्रीट के कॉम्प्रेसिव स्ट्रेन्थ टेस्ट एवं फ्लेक्सरल स्ट्रेन्थ टेस्ट उनकी निर्धारित फ्रिक्वेन्सी पर ठेकेदार की स्थानीय प्रयोगशाला एवं विभाग द्वारा मान्यता प्राप्त प्रयोगशालाओं के साथ ही न्यूनतम 10% टेस्ट एन.ए.बी.एल. से मान्यता प्राप्त प्रयोगशालाओं में किए जाए। टेस्ट की विश्वसनीयता के लिए टेस्ट के सैम्पल की भूमिका सबसे महत्वपूर्ण होती है। प्रत्येक सैम्पल, कार्य के प्रभारी उपयंत्री एवं यदि सहायक यंत्री है तो सहायक यंत्री की उपस्थिति में लिए जाएं एवं परीक्षण ठेकेदार की प्रयोगशाला में इन्हीं यंत्रियों की उपस्थिति में किए जायें। बाह्य प्रयोगशालाओं में भेजे जाने वाले सैम्पल हर हालात में शील्ड किये जाकर ही भेजे जाए एवं टेस्ट परिणामों में शील्ड सैम्पल प्राप्त हुए, ऐसा अंकित कराया जाना सुनिश्चित करें। टेस्ट परिणाम मानकों पर खरे उतरने पर ही भुगतान की कार्यवाही किया जाना सुनिश्चित करें। कांक्रीट सड़कों के संबंध में किए जाने वाले निर्धारित टेस्ट एवं उनकी आवृत्ति का उल्लेख विभाग के आई.एस. एस.आर. एवं स्पेसिफिकेशन में किया गया है।

सड़कों के निर्माण अथवा अन्य सभी निर्माण कार्यों में उपयंत्री की जवाबदेही 100% होगी। जहाँ सहायक यंत्री पदस्थ है उनकी भी 100% जवाबदेही होगी। छिपने योग्य प्रत्येक घटक की माप सहायक यंत्री की उपस्थिति में दर्ज होंगे। सड़कों, नालियों आदि का निर्माण तथापि तकनीकी कार्य है तथापि एलायनमेंट तथा सड़क की सतह, पानी के निकास की उचित व्यवस्था एवं ऐसी गुणवत्ता जिसे गैर तकनीकी व्यक्ति भी समझ सकता है, ऐसी गुणवत्ता के प्रति मुख्य नगर पालिका अधिकारी भी जवाबदेह होंगे। भुगतान के पूर्व मुख्य नगर पालिका अधिकारी अपनी संतुष्टि को प्रतिपादित करना सुनिश्चित करेंगे।

10. सीमेंट कांक्रीट सड़कों का भुगतान:- सीमेंट कांक्रीट सड़कों का निर्माण निर्धारित गुणवत्ता अनुसार हुआ है यह सुनिश्चित करने के लिये भुगतान की प्रक्रिया टेस्ट परिणामों से सम्बद्ध रहेगी। डी.एल.सी. स्तर तक का भुगतान निर्धारित क्यूब टेस्ट

आदि सम्पन्न कर गुणवत्ता सुनिश्चित करने के उपरान्त मानक पद्धति से किया जाये। तथापि सीमेंट कांक्रीट के मुख्य पेवमेंट का भुगतान क्यूब टेस्ट के आधार पर ही किया जायेगा। प्रक्रिया निम्नानुसार होगी:—

**A. एम 20 एवं कम ग्रेड की सीमेंट कांक्रीट के पेवमेंट का भुगतान:—**

- (i). एम 20 एवं कम ग्रेड की सीमेंट कांक्रीट के पेवमेंट का भुगतान 7वें एवं 28वें दिवस के क्यूब टेस्ट के परिणामों पर ही किया जायेगा अन्यथा नहीं।
- (ii). यदि 7वें दिवस की क्यूब स्ट्रेन्थ फायनल डिजाईन स्ट्रेन्थ से 66.60 प्रतिशत प्राप्त होती है तो ठेकेदार को 50 प्रतिशत भुगतान किया जायेगा जो कि एडवांस भुगतान होगा एवं माप-पुस्तिका में एडवांस के रूप में अंकित होगा। यदि 7वें दिन की क्यूब स्ट्रेन्थ 66.60 प्रतिशत प्राप्त नहीं होती तो ठेकेदार को कोई भुगतान नहीं किया जायेगा एवं कार्य को अस्वीकार किया जायेगा।
- (iii). 28वें दिवस की क्यूब स्ट्रेन्थ फायनल डिजाईन स्ट्रेन्थ की शत-प्रतिशत प्राप्त होने पर ही पेवमेंट का पूर्ण भुगतान किया जायेगा, जिसमें पूर्व अग्रिम का समायोजन किया जायेगा। यदि 28वें दिन की क्यूब स्ट्रेन्थ के परिणाम शत-प्रतिशत प्राप्त नहीं होते, तो पेवमेंट का भुगतान नहीं होगा एवं किये गये स्तरहीन कार्य को दुबारा सम्पन्न कराया जायेगा।

**B. एम 30 एवं उससे अधिक ग्रेड की सीमेंट कांक्रीट के पेवमेंट का भुगतान:—**

- (i). सीमेंट कांक्रीट निर्माण कार्य के 07 दिवस उपरान्त कोर कटर से प्रत्येक 500 मी. लम्बाई पर 01 सैम्पल लेकर कार्य से संबंधित उपयंत्री स्वयं की उपस्थिति में ठेकेदार अथवा अन्य अनुमोदित प्रयोगशाला में परीक्षण करायेंगे। परीक्षण में ठेकेदार के प्रतिनिधि उपस्थित रह सकते हैं।
- (ii). 07 दिवस की कोर की Corresponding Strength; 28 दिवस की क्यूब की Characteristic Design Crushing Strength के कम से कम 2/3 याने 66.60 प्रतिशत प्राप्त होना आवश्यक है। (दोनों की तुलना आगे दिये फारमूले के उपयोग उपरांत हो)
- (iii). 07 दिवस की कोर स्ट्रेन्थ उपरोक्तानुसार उल्लेखित 66.60 प्रतिशत क्यूब स्ट्रेन्थ के प्राप्त होती है तो ठेकेदार को 50 प्रतिशत भुगतान दिया जा सकता है जिसे माप-पुस्तिका में एडवांस (अग्रिम) के रूप में दर्ज किया जायेगा। यदि कोर कटिंग में विलम्ब होना है तो बिन्दु 10 (a) (ii) के अनुसार क्यूब स्ट्रेन्थ पर अग्रिम भुगतान किया जा सकेगा।
- (iv). यदि 07 दिवस के परीक्षण परिणाम बिन्दु क्र. 02 में उल्लेखित 66.60 प्रतिशत मानक अनुसार प्राप्त नहीं होते हैं तो कांक्रीट कार्य का कोई अग्रिम भुगतान नहीं किया जायेगा।
- (v). सीमेंट कांक्रीट पेवमेंट के निर्माण कार्य के 28 दिवस उपरान्त कोर कटर से प्रत्येक 500 मीटर की लम्बाई में पुनः सैम्पल लेकर उपयंत्री / सहायक यंत्री स्वयं

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- (vii). 28 दिवस की कोर स्ट्रेन्थ उपरोक्तानुसार उल्लेखित न्यूनतम 100 प्रतिशत मानक अनुसार प्राप्त होती हैं तो ही किये गये कांक्रिट कार्य का भुगतान माप-पुस्तिका में दर्ज किया जाये जिसमें पूर्व में दिया गया एडवांस (बिन्दु क्र 03 में दिया हो तो) समायोजित किया जायेगा। 28 दिन की कोर स्ट्रेन्थ के लिए कोर कटिंग ही अनिवार्य होगी क्यूब स्ट्रेन्थ से फाइनल भुगतान नहीं होगा।
- (viii). यदि परीक्षण के उपरान्त बिन्दु क्र 06 में उल्लेखित कोर स्ट्रेन्थ के परिणाम 100 प्रतिशत मानक अनुसार प्राप्त नहीं होते हैं तो किया गया कांक्रिट कार्य तत्काल अस्वीकृत करते हुये ठेकेदार को कार्य का कोई भुगतान नहीं किया जायेगा। साथ ही पूर्व में किया गया अग्रिम भुगतान 07 दिवस के अन्दर वसूल किया जायेगा तथा ठेकेदार से किये गये अमानक कार्य को Dismantle कराया जाकर पुनः निर्माण कराया जायेगा।
- (ix). निर्माण कार्य के संपादन के दौरान परीक्षण हेतु कांक्रिट सेम्पल; IRC-SP 62-2014 के अनुसार प्रत्येक 100 क्यू.मी. कांक्रिट के लिये 06 क्यूब लिये जायेंगे जिसमें 03 क्यूब का परीक्षण 07 दिवस की स्ट्रेन्थ के लिये तथा 3 क्यूब का परीक्षण 28 दिन की स्ट्रेन्थ के लिये किया जायेगा।
- (x). Cylindrical Core Tests से प्राप्त Crushing Strength से Corresponding Cube Crushing Strength निम्नानुसार ज्ञात की जा सकती है:-  

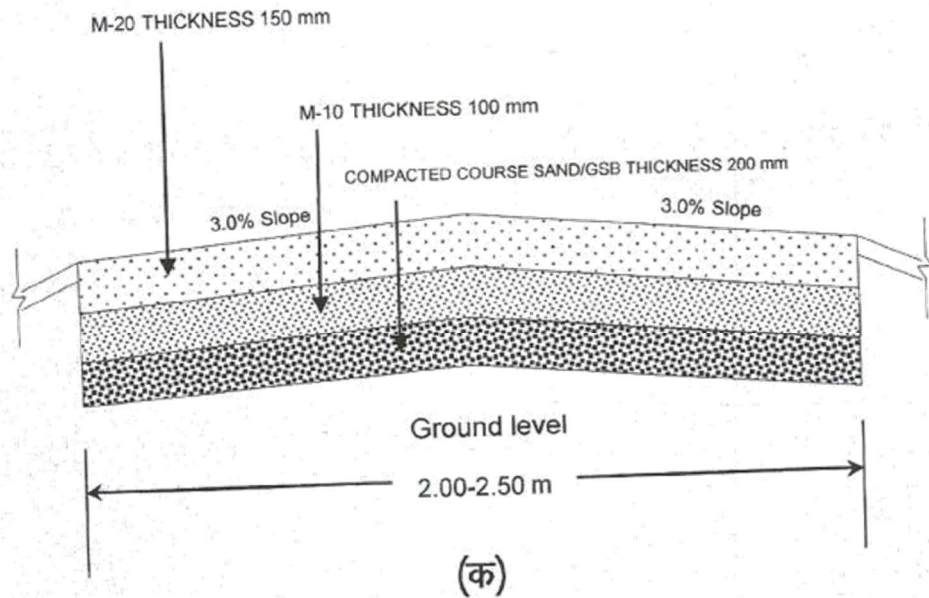
$$\text{Crushing Strength of Cubes} = 1.25 \times \text{Crushing Strength of Cylindrical Core,}$$
 When the height to diameter ratio is 2  
 The Crushing Strength of cylinders with height to diameter ratio between 1 and 2 may be corrected to a standard cylinder of height to diameter ratio of 2 by multiplying with the correction factor (f) obtained from the following equation:  

$$f = 0.11 n + 0.78$$
 where,  
 f = correction factor  
 n = height to diameter ratio
- (xi). सब-इंजीनियर द्वारा किये गये कोर टेस्ट का रिकार्ड आवश्यक रूप से संधारित किया जायेगा। जिसे कार्यपालन यंत्री द्वारा अपने 28 दिवस के परीक्षण के समय प्रति सत्यापित किया जायेगा।
- (xii). निर्माण कार्य के समय लिये गये क्यूब के सेम्पल का रिकार्ड नियमानुसार रखा जायेगा तथा वरिष्ठ अधिकारियों के निरीक्षण के समय ऐसे क्यूब के सेम्पल का परीक्षण किया जाकर परिणामों का रिकार्ड भी संधारित किया जायेगा। इसी प्रकार पूर्व में किये गये कोर टेस्ट के परिणामों का प्रति सत्यापन वरिष्ठ अधिकारियों द्वारा निरीक्षण के समय किया जायेगा।

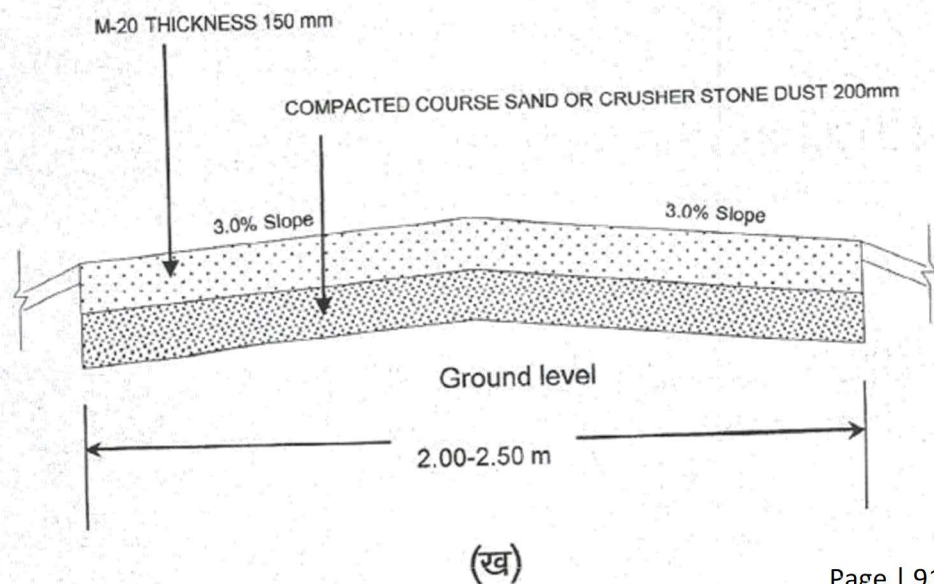
(प्रभाकर कटारे) 2/21

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 नगरीय प्रशासन एवं विकास  
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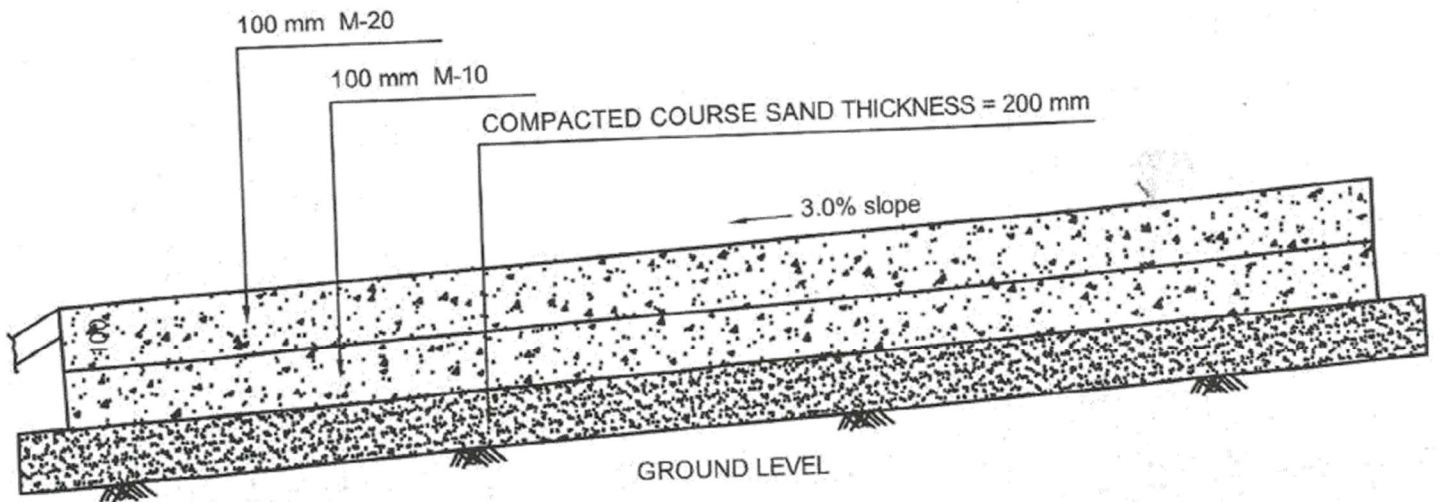
### TYPICAL CROSS SECTION OF CEMENT CONCRETE ROAD 2.00m -2.50m Wide in B.C. soil area



### TYPICAL CROSS SECTION OF CEMENT CONCRETE ROAD 2.00m -2.50m Wide in Hard Soil area

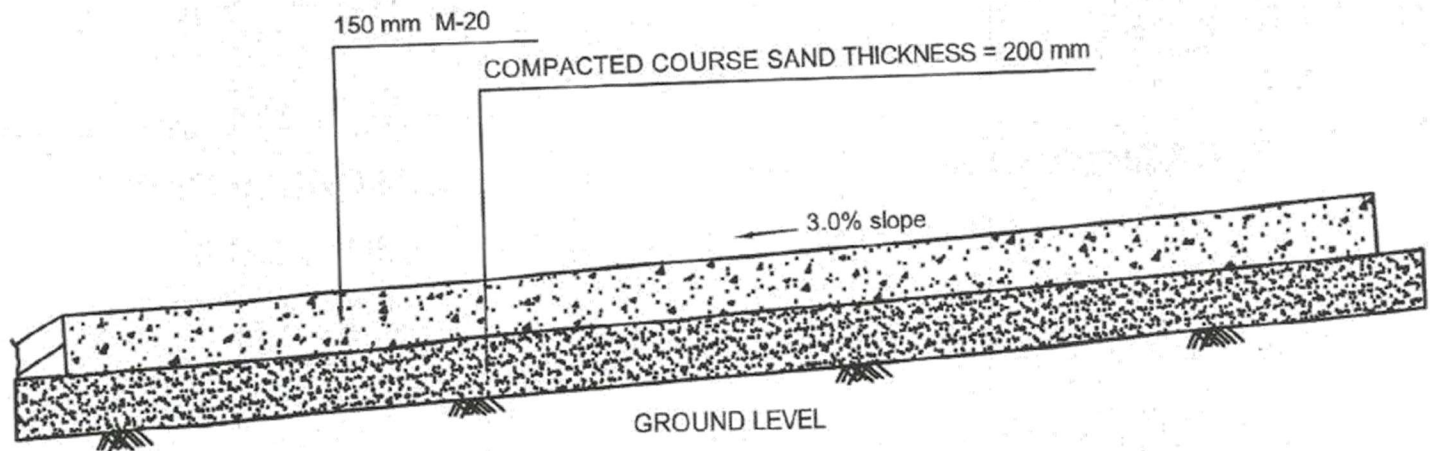


### TYPICAL CROSS SECTION OF CEMENT CONCRETE ROAD (LESS THEN 2 M WIDE IN B.C. SOIL AREA)



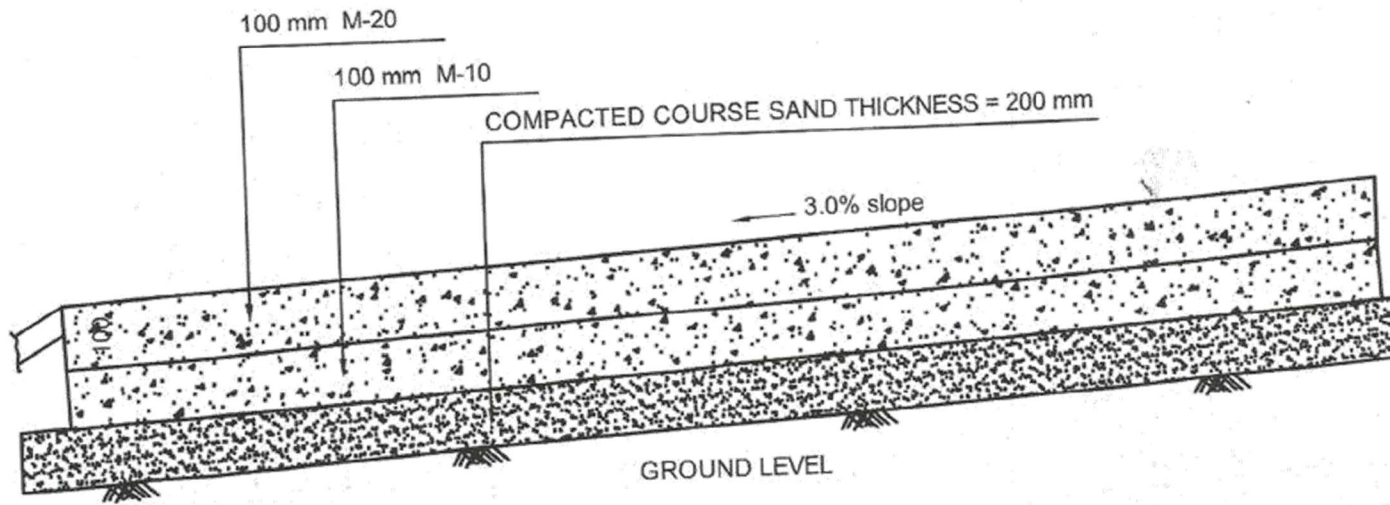
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### TYPICAL CROSS SECTION OF CEMENT CONCRETE ROAD (LESS THEN 2 M WIDE IN HARD SOIL AREA)



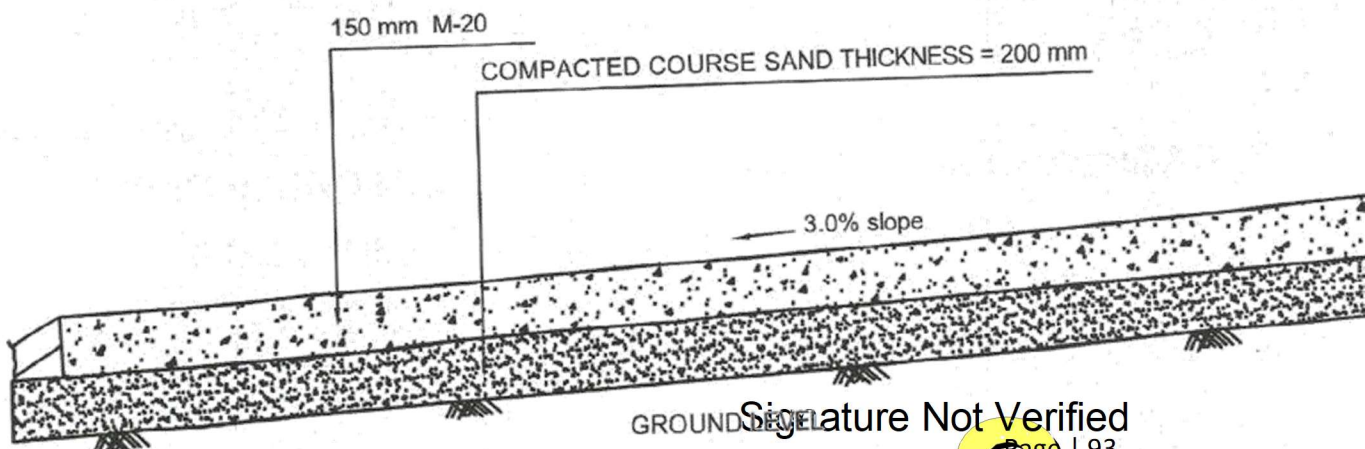
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### TYPICAL CROSS SECTION OF CEMENT CONCRETE ROAD (LESS THEN 2 M WIDE IN B.C. SOIL AREA)



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### TYPICAL CROSS SECTION OF CEMENT CONCRETE ROAD (LESS THEN 2 M WIDE IN HARD SOIL AREA)



GROUND LEVEL

Signature Not Verified

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Digitally signed by RAM NIWAS KADWA  
Date: 2022.05.01 15:51:07 IST  
Location: Madhya Pradesh-MP

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