



**CUTTACK MUNICIPAL CORPORATION
CUTTACK**

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E-mail : eecdcmc2@gmail.com/mccmc@nic.in

COVER – I

General – Technical BID DOCUMENT

FOR

**COMPOSITE TENDER OF PAVER ROADS , DRAIN AND
SMART, VENDING ZONE & SAFE FOOTPATH WORKS**

NAME OF THE WORK: AS PER NIT

ESTIMATED COST: AS PER NIT

Bid Identification No. 2026_ORULB_128794

COST OF TENDER PAPER: AS PER NIT

TENDER CALL NOTICE (DTCN)

Section	Description
DTCN Part – I: General & Technical- Bid	
Section-1	Notice Inviting Tender
Section-2(A)	Details of the Documents to be Furnished for Online Bidding
Section-2(B)	Instructions to Bidders&Eligibility Criteria For The Intending Bidders
Section-2(C)	Data Sheet
Section-2(D)	Letter for Submission of Tender
Section-3	Conditions of Contract
Section-4	Special Conditions of Contract& Model Agreement As per H& UD Letter No. 16907 dated 24-08-2023
Section-5	Scope of Work
Section-6	Technical Specifications
Schedule-A to O	Formats for furnishing Information by the Bidder along with affidavit as per DTCN
Annexure-I	Guidelines/Procedure to be followed in introduction of e-Procurement in Govt. of Odisha
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SECTION - 1



CUTTACK MUNICIPAL CORPORATION NOTICE INVITING TENDER

Bid Reference No. MC(CMC)CTC_Div-III_No.07/2026-27

Bid Identification No. 2026_ORULB_128794

Tender Call Notice No.5154(PW) / Date.13.05.2026

1. The Executive Engineer, City Division-III, Cuttack Municipal Corporation, at: Bikash Bhawan, Jagannathlane, Badambadi, Po. Arunodaya Market, Dist: Cuttack, Odisha, Pin-753012 on behalf of Municipal Commissioner, Cuttack Municipal Corporation, Cuttack invites **Percent Rate Bidin DOUBLE COVER SYSTEM** in **online mode** through e-procurement. Bids to be eventually drawn up in the standard **P1 Contract Form**. The bid should be submitted on-line in the website: www.tendersodisha.gov.in from the registered eligible contractor of State Government MES/ Railways / CPWD in equivalent rank having EPF registration and GST-In Certificate for execution of different works. The proof of registration from the appropriate authority shall be enclosed along with the Bid. If successful bidder who has not registered under State Government has to register under the appropriate registering authority of the State Government of Odisha in appropriate class of eligibility before award of the work as per prevalent registration norms of the state. The bidders may submit bids for the following works.

Sl. No.	Name of the work	Amount put to Tender (in Rs.)	E.M.D (in Rs.)	Cost of Tender Document with 18 % GST (in Rs.)	Period of Completion	Registered Class of Contractor
1	2	3	4	5	6	7
1.	Construction of 1st floor of Mahanadi Bhawan in ward no-47	20256697.00	202600	11800	(Six) Calendar Month	'B' and 'A'

1. (a) Mode of Submission of tender: Tender should be submitted online in www.tendersodisha.gov.in.

2 (b) Bid documents consisting of plans, specifications, the schedule of quantities and the set of terms and conditions of contract and other necessary documents can be seen in the website: www.tendersorissa.gov.in

3 (a) The bidders desirous to participate in bidding must possess compatible Digital Signature Certificate of Class-II or Class-III and should follow the changes / modifications / addendum to DTCN if any.

3 (b) Bidders have to remit their **Earnest Money deposit/ Bid security towards cost of Bid documents** of the amount specified above in **online mode**. The bidders with pending or failure payment status shall not be able to submit their bid. Bidders desirous to hire machineries or equipments from outside the State or owned but deployed outside the state are required to remit 2% of the amount put to tender as Bid security.

4. After opening of the Financial bid, the original documents of the successful lowest bidder as per requirement of the DTCN will be verified at the offices of the undersigned within 5(five)working days of opening of the bid.

5. The Successful bidder who has quoted less bid price / rates than the estimated cost put to tender shall have to furnish the Additional Performance Security (APS) in shape of Demand Draft / Term Deposit Receipt pledged in favour of Municipal Commissioner, Cuttack Municipal Corporation within **7 days**, otherwise the bid shall be cancelled and security deposit shall be forfeited. Further proceedings for blacklisting shall be initiated against the bidder.

6. The authority will not be held responsible for any technical snag or network failure during on-line bidding.

Defect Liability Period:

7. This contract includes a defect liability period of 1 year. If any defect or fault noticed within 1 year from the date of completion of the work then it will be corrected by the agency without any additional cost. Also, if any damages found due to poor workmanship, materials or non-compliance with the specifications then it will be repaired by the contractor immediately failing which all the security deposits will be forfeited and the license will be recommended for blacklisting.

8. The Original Affidavit including attested hard copies of all documents up loaded through website should be submitted in a sealed cover superscripted with the name of tenderer and bid Identification no. to the **Executive Engineer, CITY DIVISION-III, CMC** for verification by **16.00 Hrs of dt:02.06.2026** so as to enable opening of Bids i.e., at **11.00 Hrs of 03.06.2026**.

9. The scanned copy of Registration certificate, GST, PAN, affidavits including all required papers up loaded through website should be produced in original to **Executive Engineer, CITY DIVISION-III, CMC**, for verification before opening of Bid. Otherwise his tender will be rejected.

10. The cost of the tender paper and EMD should be deposit through e-payment gateway of Govt. of Odisha in designated bank account.

Critical Dates:-

Sl. No.	Description	Critical Dates
(i)	Period of availability of tenders on-line.	From 11.00 A.M. of 15.05.2026 to 05.00 PM of 30.05.2026
(ii)	Last date & time of seeking clarification	UP to 05.00 PM. of 30.05.2026
(v)	Last date & time of bidding on-line	UP to 05.00 PM. of 30.05.2026
(vi)	Date and time of receipt of document physically (not by hand) / by registered post / speed post / any other delivery system	On or before 5.00 PM on 02.06.2026
(vi i)	Date & time of opening of the Cover I General Technical Bid - Hard Copy Documents received through Regd. Post/Speed Post and Technical Bids received on-line	11: 00 A.M. of 03.06.2026
(vi ii)	Date & time of opening of Price Bid/Financial Bid/DTCN Part-II	To be intimated later to the bidder(s) found qualified after checking and evaluation of hard copy documents received through post and after evaluation of Technical Bids received on-line

11. The bid for the work shall remain open for acceptance for a period of **90 (Ninety) days** from the date of opening of bids. If any Bidder / Tenderer withdraws his bid/ tender before the said period or makes any modifications in the terms and conditions of the bid, the said earnest money shall stand forfeited.

12. As per notification no. MSME-IPE-MISC-0060-2019/566 MSME, Bhubaneswar dated. 24.01.2024 of MICRO, SMALL & MEDIUM ENTERPRISES Department Govt. of Odisha. The EMD/ISD/APS exemption policy of MSME Contractor is not applicable for procurement of services including work contracts (including EPC Contracts).

13 Other details can be seen in the bidding documents, which is available in website www.tendersodisha.gov.in.

14. **Modality of GST as fixed by Govt. shall be binding on both parties**

15. Subsequent corrigendum if required shall be appeared in the website.

16. Authority reserves the right to reject any or all the tenders without assigning any reasons thereof.

On behalf of Commissioner

EXECUTIVE ENGINEER, CITY DIVISION-III
CUTTACK MUNICIPAL CORPORATION

Memo No.5155(PW) / Date.13.05.2026

Copy forwarded to the MIS, CMC for hoisting this Notice & enclosed DTCN in CMC website from **15.05.2026 to 30.05.2026** for view only and information of all concerned.

Encl: As above in soft copy (pdf) Email-I.D.-mis.cmc.bibhuti@gmail.com

EXECUTIVE ENGINEER, CITY DIVISION-III
CUTTACK MUNICIPAL CORPORATION

Memo No.5156(PW) / Date.13.05.2026

Copy to Fiancé Officer, Cuttack Municipal Corporation for information and necessary action

EXECUTIVE ENGINEER, CITY DIVISION-III
CUTTACK MUNICIPAL CORPORATION

Memo No.5157(PW) / Date.13.05.2026

Copy submitted to the Hon'ble Mayor, CMC / Commissioner, CMC / City Engineer, CMC for favour of kind information.

EXECUTIVE ENGINEER, CITY DIVISION-III
CUTTACK MUNICIPAL CORPORATION

Memo No.5158(PW) / Date.13.05.2026

Copy submitted to the Collector & District Magistrate, Cuttack / Chief Engineer, (PH) Urban, Odisha, Bhubaneswar -ILW, CMC/ SE (PH) Circle, Cuttack / SE, Eastern Circle, Water Resources, Cuttack / Executive Engineer , Cuttack (R & B) Division, Cuttack for information They are requested to display the notice in their office notice board for wide publication.

EXECUTIVE ENGINEER, CITY DIVISION-III
CUTTACK MUNICIPAL CORPORATION

Memo No.5159(PW) / Date.13.05.2026

Copy submitted to the Nodal Officer, e-Procurement System, H & UD Department, Govt. of Odisha, Bhubaneswar for favour of kind information.

EXECUTIVE ENGINEER, CITY DIVISION-III
CUTTACK MUNICIPAL CORPORATION

Memo No.5160(PW) / Date.13.05.2026

Copy to the Head Assistant (Engg. Section) / Head Assistant (Adv. Section) / concerned AEE/ DEE / concerned JE/ AE / Sri Rabindra Kumar Sahoo, Data Entry Operator, CITY DIVISION-III, CMC for information & necessary action. Copy to concerned work file for reference and record. Copy to the Office Notice Board, CMC for wide publication.



EXECUTIVE ENGINEER, CITY DIVISION-III
CUTTACK MUNICIPAL CORPORATION

CONTRACT DATA

A. GENERAL INFORMATION

S N	Item	Details
1	Bid Identification No.	2026_ORULB_128794
2	Name of the Work.	AS PER NIT
3	Officer inviting tender on behalf of Municipal Commissioner, CMC	EXECUTIVE ENGINEER, CITY DIVISION-III, CMC, Cuttack
4	Employer	MUNICIPAL COMMISSIONER, CUTTACK MUNICIPAL CORPORATION
5	Executing Authority/Engineer In - Charge	EXECUTIVE ENGINEER, City Division-III
6	Accepting Authority	MUNICIPAL CORPORATION/MUNICIPAL COMMISSIONER, CUTTACK MUNICIPAL CORPORATION
7	Estimated Cost	AS PER NIT

B. BID INFORMATION

8	Intended completion period/Time period assigned for Completion	AS PER NIT
9	Last Date & time of submission of Bid	AS PER NIT
10	Cost of Bid Document (To be Remitted Online)	AS PER NIT
11	Bid Security (EMD) To be Remitted Online	AS PER NIT
12	Additional Performance Security	
i)	Amount	As per FD O.M. No 4559/W dt. 05.04.2021
ii)	Pledged in favour of	Municipal Commissioner, Cuttack Municipal Corporation
iii)	Payable at	Cuttack
iv)	Type of instrument	As specified in the Bid document
14	Bid validity period	90 days after opening of Bid
15	Minimum period of contract / agreement / lease deed of equipment and machineries.	AS Per NIT/DTCN
16	Currency of Contract	Indian Rupees
17	Language of Contract	English
18	Similar Nature of Work	Similar nature of work means construction of Storm Water Drain, Paver Block Road, Concrete Road etc. under State Govt/ Central Govt/ UT/PSU during

		last seven financial year i, which have been successfully completed & handed over in all respect duly inspected by the competent authority with full satisfaction to the department. Completion certificates are to be furnished from the Engineer-in-Charge not below the rank of an Executive Engineer. The completion certificate should clearly indicate name & details of works with value, date of commencement and date of completion
19	Price Bid/Financial Bid	Price bid format is not enclosed in this bid document. It has to be downloaded from the e-procurement portal https://tendersodisha.gov.in PRICEBID/ PRICE SCHEDULE/ BOQ (in the excel Format) has to be submitted online only. The price bid/ price schedule/ BOQ format (excel sheet available in e-Tender Portal) is specific to a bid and is not interchangeable. The price bid/ price schedule/ BOQ Format shall be downloaded from the e-Tender Portal by the bidder and quote the prices in the respective fields before uploading it. The price bid/ price schedule/ BOQ submitted in any other Format will be treated as non-responsive. Multiple submissions of price bid/ price schedule/ BOQ by bidder shall lead to cancellation of bid.
20	Percentage to be Deducted & Withheld from each Payment Invoice after Correction, if any, by Cuttack Municipal Corporation (CMC) for Repair/ Replacement/ Maintenance of the Work during Defect Liability Period of 1095 Days (3Years) from the Date of Completion of the Original work vide contract Agreement form in this Section	@ 8 (eight) %+ 2(two)% ISD

SECTION- 2(A)

**DETAILS OF THE DOCUMENTS TO BE FURNISHED
FOR ONLINE BIDDING**

- (a) Scanned copies of the following documents to be up-loaded in appropriate place in PDF format in the website **www.tendersodisha.gov.in** failing which the tender will be cancelled.
- i. Remittance of Cost of Bid Document (Online).
 - ii. Remittance of Bid Security (EMD) (Online).
 - iii. **GST Registration Certificate.**
 - iv. PAN Card.
 - v. Contractor Registration certificate.
 - vi. Affidavit / Declaration regarding: Correctness of certificates / no relation certificate/ Acceptance of tender conditions / free from criminal proceedings etc(Schedule-A&O)
 - vii. Letter of submission of tender.
 - viii. Any other relevant required document, if any.
 - ix. Bid Security Declaration
 - x. Non submission of any other documents as per clauses not relevant to the nature of the work as per BOQ will not be consider for rejection
- (b) Scanned Copies of the Certificates / Formats/affidavit showing details of information to be furnished as per the enclosed formats should be uploaded in appropriate place after converting the same to PDF.
Schedule-AA to OO
- (The details of the Format is enclosed in the DTCN)
- (c) Uploaded documents of valid successful bidders will be verified with the original before acceptance of offer.
- (d) DTCN is not to be uploaded by the bidder. The bidder has to only agree / disagree on the conditions in the DTCN. The bidders, who disagree on the conditions of DTCN, cannot participate in the tender.
- (e) **Cost of Bid Document & Bid Security amount (EMD) will be paid on online mode** by the Bidder, failing which the bidder will be disqualified.

N.B :Based on the Instructions issued by Finance Department, Government of Odisha, vide order No. 8943/F dated 18-03-2021 on Bid Security/ Earnest Money Deposit (EMD) and order No. 8952/F dated 18-03-2021 on Performance Security, RFP/ Tender is hereby notified as following:

i. The requirement of furnishing documents during the Pre-qualification Bid by the bidders (as indicated in the tender document) is hereby revised to include the Bid Security Declaration (as per the revised Annexure enclosed herewith) in lieu of the earlier requirement of submitting Earnest Money Deposit (EMD). Under the subject RFP/tender, wherever the term referred as "Earnest Money Deposit (EMD)" shall henceforth denotes "Bid

Security Declaration as per revised Annexure (enclosed herewith)" for all kind of understanding without changing the essence of the relevant RFP/tender clauses. Consequently, the description details given against the "Earnest Money Deposit (EMD) in the form of a Bank Draft or Bank Guarantee" to be read as "Bid Security Declaration to be submitted by the bidders as per the revised Annexure (enclosed herewith). Proposals without Bid Security Declaration in the prescribed format shall be summarily rejected" instead of existing. Also "Earnest Money Deposit (EMD)" to be read as "Bidders shall submit Bid Security Declaration as per the revised Annexure (enclosed herewith). Proposals without Bid Security Declaration in the prescribed format shall be summarily rejected" instead of existing.

ii. The amount of the Performance Bank Guarantee to be submitted by the bidders on awarding of contracts (as indicated in the RFP/tender document) is hereby reduced to 3% of the value of the contract.

All other Terms and Conditions remain same as mentioned in RFP/Tender documents.

SECTION- 2(B)
INSTRUCTIONS TO BIDDERS
A. GENERAL

1. **Definitions:**

- a) "Employer" means the **Municipal Commissioner, Cuttack Municipal Corporation** of the Government of Odisha represented by the **EXECUTIVE ENGINEER, CITY DIVISION-III, C.M.C.** or his authorised representative with whom the selected Contractor signs the contract for the services.
- b) "Contractor" / Bidder / Firm / Engineer Firm / Company carry the same meaning through out the DTCN and Contract.
- c) "Contract" means the contract / agreement signed by the parties along with all attached documents listed in the DTCN (Tender Document Part-I & II).
- d) "Data Sheet" means such part of the Instructions to Contractor as are used to reflect assignment conditions and evaluation of the bid.
- e) "Instructions to Bidders (Section-2(B) of DTCN) means the document which provides all information needed to prepare their proposals.
- f) "TCN" (Section-1 of the DTCN) means the Letter of Invitation being sent by the Employer.
- g) "Personnel" means professionals and support staff provided by the Contractor and assigned to perform the services in full or in any part thereof.
- h) "DTCN" means the Detailed Tender Call Notice prepared by the Employer for the selection of contractor.

2. **Introduction / Selection Procedure:**

The Employer named in the Data Sheet will select a contract firm to execute the work as described in the scope of work and in the Data sheet.

The Contractor shall bear all costs associated with the execution of the work on **Percentage Rate Bids**. The Employer is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to contract award without thereby incurring any liability to the Contractor.

3. **Location of the Project:**

The place of action is at **Cuttack** in the State of Odisha.

4. **Source of Funding:**

The work will be funded by **Cuttack Municipal Corporation**.

5. **Eligibility:**

- 5.1. A Bidder shall be deemed to have the nationality of India.
- 5.2. Government-owned enterprises shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law.
- 5.3. Registered Contractor of **As per NIT** of Odisha State PWD or equivalent class of CPWD / Railway / MES / Central or other State Govt. and Reputed Engineering Firms. Proof of registration is to be furnished along with the tender.

6. **History of Litigation and Criminal Record:**
- 6.1. If any criminal cases are pending against the Contractor (him / her / partners) at the time of submitting the tender, then the tender shall be summarily rejected. In such a case, the Contractor shall submit an affidavit to the effect that the history of litigation, criminal cases pending against him/her/partners furnished by him/her is true.
- 6.2. In case it is detected at any stage that the affidavit is false, he will abide by the action taken by the **EXECUTIVE ENGINEER, City Division-III, Cuttack** without approaching any court whatsoever for redress. He will however, be given suitable opportunity to offer his explanation before action is taken against him.
7. The Contractor has to furnish a declaration that no near relatives are working as in the cadre of an Junior Engineer/Assistant Engineer and above in the Organisation of Cuttack Municipal Corporation.
8. **Other Requirements:**
- 8.1. Even if the Contractor meets other criteria, his tender shall be summarily rejected if he is found to have misled or made false representation in the form of any of the statements submitted in proof of the eligibility and qualification requirements.
- 8.2. The tender shall also be summarily rejected if he has a record of performance such as absconding from work, works not properly completed as per contract, inordinate delays in completion, financial failure.
- 8.3. In addition to the above, even while executing the work, if it is found that he produced false / fake, certificates in his tender, he will be blacklisted.
- 8.4. The bidders who have in last 3 financial years applied for / are undergoing Corporate Debt Restructuring (CDR)/Strategic Debt Restructuring (SDR) or facing recovery proceeding from Financial Institutions or those are facing Sickness and under consideration of Board for Industrial & Financial Reconstruction (BIFR) are not eligible for qualification. Self declaration Certificate by the bidder in the form of affidavit is to be submitted.
9. **Original Certificates:**
Original documents/certificates shall be produced as and when required to verify the copies of statements and other information furnished along with tender. Failure to produce original documents in time will lead to disqualification.
10. **Cost of Tendering:**
The Contractor shall bear all expenses associated with the preparation and submission of his tender. Cuttack Municipal Corporation. shall in no case be responsible or liable for reimbursement of such expenses.
11. **Site Visit:**
The contractor is advised to visit and examine the **site** area and its surroundings and obtain for himself all information that may be necessary for preparing the tender and quoting rates at his cost and responsibility.

ELIGIBILITY CRITERIA FOR THE INTENDING BIDDERS

01. In addition to the eligibility criteria mentioned elsewhere in this DTCN, the following criteria/ conditions should be fulfilled by each intending bidder as well as the successful bidder.
02. The bidders desirous to participate in bidding for any work, put to tender herewith, must possess up to date compatible Digital Signature Certificate and should follow the changes/ modifications/ addendum to this DTCN, if any.
03. The original documents, i.e. Affidavits, Schedules, Undertakings, Declaration Certificates, PAN, GSTIN, EPF, Contractor's Registration Certificate (License) as per the DTCN, copies of which should have been uploaded by the bidder in the e-tender website along with its bid, should be submitted for verification during bid evaluation process, as required by the tender inviting authority and within such time as intimated by the tender inviting authority, either through the bidder's self-declared 'telephone no.' or 'e-mail ID' or 'address for correspondence'. The process of verification and/or submission of original documents shall, preferably, be limited to the L₁ & L₂ bidders, unless otherwise required for other bidder(s) as decided by the tender inviting authority.
04. Each intending bidder for any work should have **completed construction of road and drain work(s)** in any one year during the last 5 (five) years **(2021-22 to 2025-26)** of value not less than 30% of the estimated cost of the corresponding work herewith put to tender. The expression **'road and drain work(s)'** mentioned in this DTCN shall mean **'Repair or Construction (not maintenance) of any project(s)/ work(s) having only road or road with drain or road with cross drainage structure(s)'**. The work(s) should have been executed for Government / Public Sector

Organization(s) in India. The work experience during the financial year 2021-22 (till the date of invitation of tender) shall also be considered. The experience certificate(s) should have been issued/signed from/by appropriate authority i.e. not below the rank of Executive Engineer or its equivalent in any public office or organization of India / Executive Officer or Municipal Engineer of the ULB concerned in Odisha under which/whom the bidder has executed any work during the aforesaid period. Weightage @ 10% per year shall be given on the value of work(s) executed in the preceding years as mentioned in **Clause-6** below. The format prescribed for submission of such certificate (s)/ document (s) is attached as **Schedule-‘A’** to this DTCN. All such certificates in **Schedule-‘A’** obtained from various offices/ authorities should be uploaded by the respective bidder along with its bid for the corresponding work herewith put to tender. Further, the information to be filled in the format at **Schedule-‘A’** should cover all the works irrespective of its nature/ type and should not reflect the ‘**road and drain works**’ only.

05. Each intending bidder for any work should have annual financial turnover of not less than 40% of the estimated cost of the corresponding work herewith put to tender in any one financial year during last 5 (five) years **(2021-22 to 2025-26)** and the turnover should have been certified by registered Chartered Accountant/ competent organization. This turnover certificate should bear the Unique Document Identification Number (UDIN) of the corresponding Chartered Accountant certifying the details with his/her/their name, seal, signature & date. Weightage @ 10% per year shall be given on the annual turnover of the preceding years as mentioned below in **Clause-6**. Even provisional turnover, if declared, declared in the said certificate issued by Registered Chartered Accountant / competent organization in favour of the intending bidder for the financial year 2021-22 is also acceptable. Format prescribed for submission of this certificate is attached at **Schedule-‘B’** to this DTCN. This Certificate should feature year-wise total turnover and specific turnover from construction works.

06. **Weightage Factor**

Following enhancement factors will be used to arrive at the cost of works(s) executed and turnover accrued as per **Clause 4&5** above to bring the financial figures to a common platform for evaluation of the bids during the year 2021-22.

Year	Multiplying factor
2025-26	1.10
2024-25	1.20
2023-24	1.30
2022-23	1.40
2021-22	1.50

To arrive at the value of '**Road or Drain Work(s)**' completed in any financial year during **2021-22 to 2025-26** vide Cl.8 above, value of such works executed through multiple contracts in the corresponding financial year shall also be considered. In case any such work, executed and completed in more than one financial year, then the **value of work done during its completion year** shall be considered. In case the values pertaining to different financial years are not mentioned in the experience certificate at **Schedule-'A'**, then it will be calculated on a pro-rata basis, considering the total executed value-vrs.- the total time scheduled or consumed in days.

07. **Bid Capacity:** These stipulations shall apply to all works having individual estimated cost herewith put to tender for more than **Rs.3.00 crores**. Intending bidders, who meet the other eligibility criteria, should have available bid capacity more than the estimated cost of the corresponding work herewith put to tender. The available bid capacity will be calculated in the following manner.

Assessed Available Bid Capacity = $(A \times N \times 2 - B)$ where,

A = Maximum value of **construction work(s)** executed in any one year during the last five years (**2021-22 to 2025-26**) (updated to the price level of 2021-22 with weightage of value as per **Cl.6** above (to be assessed from the Turnover Certificate vide **Schedule 'B'**)).

B = Present value of the work(s) in hand (awarded but not started/ work(s) in progress or not completed) to be assessed from **Schedule – ‘A’** and or **Schedule – ‘C’**

N = Number of years or fraction thereof prescribed for completion of the corresponding work for which the bid is invited.

NOTE:

- (1) The information in **Schedule – ‘A’ and ‘C’** showing the value of work(s) in hand (awarded but not started/ work in progress or not completed) as well as the stipulated revised period of completion remaining for each work listed therein (not completed or not started) will be used to arrive at the value of existing commitment(s).
 - (2) In case of non-disclosure/ hiding/ suppression of any existing commitment in **Schedule – ‘C’**, if detected during the bid evaluation stage, then the bid of such bidder(s) will be evaluated considering such detection.
08. Each intending bidder should ensure before bidding that, he/she/they is/are in possession of or under lease/hire agreement or understanding for some minimum tools and plants, equipments and machineries as listed in **Schedule-‘D’** of this DTCN. The nature of possession (Owned/ Hired) and physical working condition of the tools and plants, machineries and equipments required for the work, herewith put to tender, are mentioned in **Schedule-‘D’**. However, each intending bidder should note that the list of tools and plants, machineries and equipments mentioned in **Schedule-‘D’** are bare minimum requirement, not an exhaustive list. In case the successful bidder is found unable/unwilling to deploy the tools and plants, machineries and equipments at any stage of execution of the work, herewith put to tender, then it will be treated as a breach of contract by the successful bidder and in such case(s), the authority will have liberty to take any action as deemed appropriate against the contractor and / or to make up the shortfall at the cost and risk of the successful bidder.

09. Each intending bidder (unless a Civil Engineer Contractor) should note that he/she/they, when declared as a 'successful bidder' for any work, herewith put to tender, should deploy at least one experienced Civil Engineer at the work site for the full time during the course of lay out and execution of the work. The qualification and experience of the Civil Engineer should be as mentioned below.

- (a) Diploma or Degree in Civil Engineering passed from any institute/ organization recognized by AICTE.
- (b) Should have post-qualification experience of at least two years in Civil Engineering survey or monitoring and quality control of Civil Engineering works or civil engineering construction works with quantity measurements or combination of two or more of the above types of activities.

Each successful bidder will have to submit genuine documentary proof to the authority in support of the above qualification and experience of the Civil Engineer proposed to be hired by the successful bidder. No payment or liability for such hiring & deployment shall be made/entertained by the authority. The hired engineer should represent the successful bidder at the work site and hence, the 'conduct' and 'DO's' and 'Don't's', applicable to the successful bidder under the contract conditions for any work shall ipso-facto apply to the hired Civil Engineer. In case of deviation observed by the authority and informed to the successful bidder, the said Civil Engineer should be replaced by an equivalent one within such time as the authority may allow. Any bidder, found successful in the bidding process for more than one work, herewith put to tender, need not hire separate Civil Engineers for each work.

10. The bidders, who have in last three financial years applied for / are undergoing Corporate Debt Restructuring (CDR)/Strategic Debt Restructuring (SDR) or facing recovery proceeding from Financial Institutions or those declared as 'Sick' and or under consideration as 'Sick'

by the Board for Industrial & Financial Reconstruction (BIFR), are not eligible for bidding. Self-declaration or self-affidavit by the bidder in the format at **Schedule-'E'** of this DTCN is to be submitted in this regard.

11. **Earnest Money Deposit:**

The Earnest Money Deposit (EMD) has been exempted till **31.12.2022** as per FD O.M No. **8943 dt 18.03.2021**. Each intending bidder is required to furnish Bid Security Declaration as per **Schedule-'F'** failing which, such bids shall be outrightly rejected.

12. Any bidder, [intending to claim full or partial exemption](#) for submission of ISD as per OPWD Code, is required to submit necessary documentary evidence in support of such claim along with its on-line bid failing which, subsequent claim/ request to avail this facility will be rejected outrightly.

13.

Note: The pre-bid meeting may be conducted virtually or physically on the aforesaid date & time. Bidders intending to attend the pre-bid meeting virtually are requested to register itself in the meeting link to be obtained from the tender inviting authority before start of the meeting and join the discussion on the scheduled date & time. Similar type of queries/ questions should not be asked by any bidder again during the pre-bid meeting, if clarification to the same has/have already been given by the authority in response to the queries/ questions of any other bidder. A statement featuring the queries received /raised and clarifications given will be uploaded in the tender website for information of all concerned. No specific communication to any bidder shall be made in this regard by the authority.

INFORMATION FOR THE BIDDERS

14. With a view to achieve higher efficiency and consume less time in the process of communication with any bidder, any of the three modes of communication or intimation by the tender inviting authority vide Sl.3 above

with any bidder or the successful bidder (as the case may be), on any matter related to the bidding process, evaluation and finalization of bids, deposit of ISD & APS (as applicable), submission of work program, drawl of agreement, issue of work order, execution of the work, correspondence related to execution/ quality control of the work, bill payments, defect rectification and every other aspect related to the work and/ or the corresponding contract, shall be treated as official and binding upon the respective bidder(s) to **carry out** the instructions contemplated therein within the allotted time failing which, it will be treated as violation of terms and conditions of this DTCN and/or agreement (as the case may be) and in such a situation, the tender inviting authority and/or any other appropriate authority may take any action against the bidder/ contractor as deemed fit/ appropriate.

15. In this DTCN the term, 'year' or 'years' referred/ mentioned, should mean & imply the corresponding 'financial year, or 'financial years'.
16. **Initial Security Deposit/Performance Security:**
After issue of tender acceptance letter (LoA) by the tender inviting authority or any other appropriate authority, the successful bidder shall have to furnish, Initial Security Deposit (ISD) amounting to not less than **2% (two percent)** of the accepted value of the tender (save as EMD/ISD exemption facility available to some category of bidders as per OPWD Code in shape of NSC/Postal Saving Pass Book /Post Office Time Deposit /**Kishan Vikash Patra**/Deposit Receipt in Schedule Bank duly pledged in favour of **Municipal Commissioner, Cuttack Municipal Corporation** payable at **Cuttack** ,within **15 (fifteen) days** from the date of issue of LoA failing which, the tender of successful bidder shall be rejected followed by other action as deemed fit against the said bidder. The successful bidder may also submit ISD in shape of Bank Guarantee (BG) issued in favour of **Municipal Commissioner, Cuttack Municipal Corporation** from/through any nationalised/schedule bank located at **Cuttack** or counter guaranteed through any branch of the corresponding bank located at **Cuttack** The BG

should remain valid at least till one month after expiry of defect liability period of one year from the stipulated date of completion as per LOA. In case of delay in completion of the work, this BG may be extended for further periods as required or replaced by a new BG by the successful bidder with such validity period, as decided by the tender inviting authority/appropriate authority.

17. Additional Performance Security:

As per Office Memorandum No. 07764600022025/173/W, Bhubaneswar Dt. 03.01.2026 of Works Department, Government of Odisha.

After careful observation, Government has been pleased to abolish the extant provisions of threshold negative bid caps (14.99%) introduced in Appendix-IX, Clause 36 of OPWD Code Volume-II in the procurement of works undertaken by the Govt. of Odisha and its agencies to ensure the procurement process results in a viable and successful manner with adoption of following incremental Additional Performance Security (APS) system :

1. Additional performance security shall be taken on an incremental basis from the selected bidder for low bid prices in the project works as under:

- where the bid price is below 0% but not below 10% of the project cost put to bid, no additional performance guarantee/security percentage is required.
- where the bid price is below 10% but not below 20% of the project cost put to bid, the additional performance guarantee/security percentage shall be incremented by 0.1% for every percentage of bid price below 10% of the project cost put to bid starting at 11% with the additional bid performance guarantee being 0.1% and this additional performance guarantee percentage shall be applied on the bid price;
- where the bid price is 20% or more below of the project cost put to bid, the additional performance guarantee percentage shall be incremented by 0.2% for every percentage of bid price below 20% of the project cost put to bid in addition to 1% of the bid price and this additional performance guarantee percentage shall be applied on the bid price;
- The additional performance guarantee percentage shall be rounded off to the next lower percentage based on whether the decimal point of the percentage of bid price is below 0.5% or next higher percentage based on whether the decimal point of the percentage of bid price is 0.5% or more.
- The additional performance security shall be treated as part of the performance security.
- Justification for abnormally low bids shall be scrutinized by the Departmental Technical Committee and recommended to the competent authority of the Administrative Department for the approval of the Additional Performance Security (APS). An abnormally low bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the contract at the offered price. Procuring Entity may, in such cases, seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to scope, schedule, resource mobilization, allocation of risks and responsibilities, and any other requirements of the bid document. If, after evaluating the price analyses, the procuring entity determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the Procuring Entity may reject the Bid/ Proposal. However, it would not be advisable to fix a normative percentage below the estimated cost, which would automatically be considered as an abnormally low bid.

As per Office Memorandum No. 07764600022025/632/W, Bhubaneswar Dt. 09.01.2026 of Works Department, Government of Odisha.

1. The phrase" to abolish the extant provisions of threshold negative bid caps (14.99%) introduced" in the first para of the Works Department OM No. 173 dated. 03.01.2026 may be read as " to abolish the extant provisions of threshold negative bid caps of 15 % introduced vide Works Department OM No. 123661W dt. 08.11.2013 and amended vide Works Department OM No. 1437 dt, 31.01.2023"
 2. If more than one bid is quoted (decimal up to two numbers will be taken for all practical purposes), either at the estimated Cost put to tender or less than the estimated cost put to tender, the tender accepting Authority will finalize the tender through a transparent lottery system, where all the concerned bidders/their authorized representatives, the concerned SE/EE of the concerned Division and Divisional Accounts Officer (DAO) will remain present.
 3. If the rate quoted by the SC and ST Category Contractors comes to the rate quoted by the L 1 bidder (decimal up to two numbers will be taken for all practical purposes) after availing 10% price preference as per Para 2 of Works Department Resolution No. 27748 dated. 11.10.1977, the tender shall be finalized by the tender accepting authority through a transparent lottery system along with other categories of contractors.
 4. As regards the bidding process in which the tender has been floated before the issue of Works Department Office Memorandum No.173 dt 03.01.2026, the bid shall be finalized as per the earlier provisions in Appendix-IX, Clause 36 of OPWD Code Volume-II.
18. Upon acceptance of the tender of any bidder, the said person/agency will be designated as **‘successful bidder’**. Then the successful bidder will be intimated through a letter about the fact of acceptance of his/her/their tender termed as, **‘Letter of Acceptance (LoA)’** with instruction to deposit ISD, APS (if applicable), work program, drawl of agreement, and to fulfil such other requirements as per the DTCN and/or as the authority may inform. The successful bidder will have to comply with the above instructions within the timeline stipulated in the LoA, which under normal circumstances would be 7 days from the date of issue of LoA. A sample **LoA** is attached to this DTCN as **Schedule-’J’**.
 19. The successful bidder shall, within **07 (seven) days** from the date of issue of **Letter of Acceptance (LoA)**, furnish the Performance Security &Additional Performance Security (if applicable) in the prescribed shape and manner. The successful bidder should also submit a work programme & sign the agreement in prescribed format within this 7 days failing which, the tender inviting authority/ any other appropriate authority shall, without prejudice to any other right or remedy available in law, be at liberty to reject the tender of the successful bidder followed by other action against the successful bidder as deemed fit.
 20. For filling-up information in the Schedules, intending bidders may obtain editables oft copy of the Schedules from the tender inviting authority through e-mail.

21. The word/words 'authority' or 'tender inviting authority' or 'competent authority' mentioned in this DTCN shall imply the same meaning and entity and it also include its 'Assignees', 'Engineer-in-Charge' or 'Engineers-in-Charge'.
22. In case of any doubt or misinterpretation of any 'terminology' or 'sentence' or 'sentences' of this DTCN, raised by any bidder at any stage, clarification of the 'authority' on the same shall be final and binding upon the bidders. In case it is found/discovered by any bidder that the conditions/ clauses or a portion thereof in the DTCN are mutually inconsistent or repeated and clarification is sought for on the same, then clarification of the 'authority' in this regard shall be treated as final and binding upon the bidders. It is further clarified that the authority reserves the right to ask any bidder, after opening of the technical bid for any work, to submit legible copy(s) of any document (if appeared to be illegible) and/or any other document in connection with its bid uploaded without assigning any reason thereof to any other bidder/entity. However, such a requirement by the authority should be complied with by the said bidder within such time, shape and manner as decided by the authority failing which, the bid documents of the said bidder will be treated as '**incomplete**', '**non-responsive**' and hence, it will be rejected accordingly followed by other action against the said bidder as deemed appropriate by the tender inviting authority.
23. During tender evaluation stage, if any written complaint is lodged before the authority against any bidder, it is clarified that merit of the complaint shall be based on and limited to the documentary evidence attached by the said complainant with its written allegation. Complaint(s) without appropriate documentary evidence may not bear any merit for consideration, decision, communication and response of the authority. The onus of supplementing the allegation with appropriate documentary evidence during lodging the complaint shall lie on the complainant itself. Such complaints should not be progressive from the same source / person / entity.

24. During and/or after execution of the work, herewith put to tender, the successful bidder will be required to facilitate a few tests to be conducted through Government or Government authorized laboratories as per direction of the authority. The successful bidder will be responsible to coordinate with the corresponding laboratory(s) for collection of samples from the respective work site, preservation and handling of the samples as per specifications, testing of the same and obtaining the test results from that/those laboratory(s) on payment. This payment or a part thereof (as admissible to the authority) shall be reimbursed by the authority to the successful bidder during payment for his/her/ their work bill or during payment of any other dues in connection with the work. No other claim or correspondence in this regard (collection, handling, preservation, testing of samples) by the successful bidder shall be admissible to the authority. A tentative list of laboratories, where and through which the intended tests are required to be conducted, is attached at **Schedule-‘H’** to this DTCN. Similarly, a list of tests required to be conducted with an explanatory ‘Note’ is attached at **Schedule-‘I’** to this DTCN for information of all the intending bidders as well as the successful bidder. It is made very clear that, if any of the test result indicates poor quality of any material and/or poor quality (quality not conforming to the specifications) of construction in any segment/ stretch/ portion of the work represented by the test sample(s) collected from the work site, the corresponding material(s) and/or corresponding portion/ stretch/ segment of the work will be rejected by the authority. In such case(s), the successful bidder will have to remove the defective material(s) from the work site, dismantle the corresponding portion/ stretch/ segment of work done and dispose the same away from the work site forthwith as per direction of the authority. No payment for such defective materials and/or defective work and for removal/ dismantling of the same shall be made by the authority. The successful bidder shall have to procure materials as per required quality and specifications in place of the poor quality materials (removed/ disposed from the work site by the successful bidder) and,

reconstruct the parties/ segments/ stretches in place of the defective constructions (dismantled and disposed off from the work site by the successful bidder). Payment will be made only for the portion of work/ materials (as applicable) found satisfying the quality requirements. No claim or correspondence of the successful bidder in this regard shall be entertained by the authority.

25. Upon finalization of the tender for the work herewith put to tender, an agreement will be drawn by the authority with the successful bidder subject to fulfillment of the conditions to be laid down in the LoA of **Schedule-J** by the successful bidder. Then this DTCN shall automatically form a part of the agreement whether or not, it is attached with the agreement and relevant details mentioned in this DTCN related to post-finalization of the tender shall be binding on the successful bidder.
26. The scope of work consisting of the items/ quantities mentioned in the BoQ are tentative. During construction of the work, if any additional quantities and/or items are found essential for execution at the site as per direction of authority, then the same shall be undertaken by the contractor without any objection. However, the value of such additional quantity and/or items should be such that the agreement value for the work is not exceeded.
27. **SFRC** grating (fixed in position) and FRP drain covers (removable) with its frame (fixed in position) shall be provided at desired locations/ position of the work. The contractor shall be bound to procure and install these materials with quantity and make as directed by the authority.
28. The work shall be executed by the contractor following the alignment and position of various heterogenic materials and items as per direction of the authority. Any deviation found by the authority regarding the alignment, positioning, level, etc., of any item/ component/ portion of the work, those portions/ items/quantities will not be considered for measurement and payment.
29. During course of execution of the work, if any private utility such as; water supply line, wastewater line or sewerage line, power supply line, etc., is

damaged by the successful bidder, hereinafter mentioned as contractor, shall repair/rectify/ replace the same with identical materials and workmanship within such time as directed by the authority and/or the corresponding person/entity whose utility is damaged. Payment for such restoration works shall be made by the authority based on actual items and quantities of restoration works. This payment will be beyond the contract value. The rates of the materials and labour for these restoration works shall be SoR of Government of Odisha prevailing during the period of execution. In case of the items not covered under Govt of Odisha SoR, the rates of those materials shall be decided by the authority and the contractor shall not have any claim beyond the payment decided by the authority for such restoration works.

SCHEDULE – A
WORK EXPERIENCE

1. Name & Address of the Contractor with His/ Her/ Their License No. :
2. Details of the works executed during **2021-22 to 2025-26** (Till the Date of Invitation of Tender)

Sl. No.	Name of the Work & Agmt. No. & Year	Name of the Office/ Organization	Stipulated date of commencement	Stipulated date of completion	Actual/ Revised/ Expected month of completion	Agmt. Value with Taxes in Rs.	Financial year-wise amount paid in Rs. Corresponding to Agmt. Value with taxes (Excluding the amount paid towards escalation, Additional work, settlement of claims, etc.)	Total amount paid in Rs. Corresponding to the Agmt. value with taxes (Excluding the amount paid towards escalation, Additional work, settlement of claims, etc.)	Value of Balance works to be done in Rs. with taxes (Excluding the amount paid towards escalation, Additional work, settlement of claims, etc.)	Whether the work consisted of construction of road or road with drain	Remarks
1	2	3	4	5	6	7	8	9	10	11	

Signature & Seal of the Authority
Issuing this Certificate

NB: This/ These Certificate(s) is/are to be signed with seal affixed on it and issued by the officer(s) concerned not below the rank of Executive Engineer or its equivalent of the corresponding office(s)/ Executive Officer or Municipal Engineer of the corresponding ULB of Odisha under whom the above work(s) were executed. The bidder should obtain such certificate(s) from the corresponding authority(s) pertaining to each office/ organization under which the bidder has/had entered into agreement(s) during the aforesaid five years. Multiple certificates in this format should be obtained by each intending bidder from the corresponding offices/ authorities under which the bidder has executed or now executing the works and these certificates should be signed and uploaded by the bidder with its bid as per **CL.1** of the DTCN.

Contractor

Executive Engineer C.D III, CMC

SCHEDULE – B
FINANCIAL STATEMENT

Audited financial statement for last five years (2016-17 to 2020-21) is to be attached/ uploaded with the bid in the following format. This statement should be issued by any Regd. Chartered Accountant or competent financial organization duly signed with its seal affixed on it by the corresponding **Chartered Accountant/ Competent Entity and should bear the Unique Document Identification Number (UDIN) of the Chartered Accountant.** It should also be signed by the bidder and uploaded with the technical bid in accordance with the **Cl.2** of DTCN.

- 1) Name and Address of the Client with PAN:
- 2) Total annual turnover & annual turnover from **Construction Works** undertaken during the following five financial years by the aforementioned client.

Year	Total turnover in Rs.	Turnover from construction works in Rs.
2025-26		
2024-25		
2023-24		
2022-23		
2021-22		

Signature & Seal of the Chartered Accountant/Competent Entity

UDIN of the Chartered Accountant:

Signature of the Bidder

SCHEDULE-C

SELF DECLARATION/ SELF AFFIDAVIT TO BE UPLOADED BY THE BIDDER ON THE LIST AND VALUE OF WORK(S) FOR WHICH, AGREEMENT(S) HAS/ HAVE BEEN DRAWN, BUT WORK(S) ARE IN PROGRESS OR NOT STARTED AND, THE WORK(S) FOR WHICH, TENDER(S) FINALIZED IN FAVOUR OF THE BIDDER, BUT AGREEMENT(S) NOT YET DRAWN (EXISTING COMMITMENTS)

Sl. No.	Name of the Office/ Organization	Name of the Work	Ag. Value or Accepted Tender Value (in case Agmt. not yet drawn) with Taxes in Rs.	Amount paid, if any, with Taxes corresponding to the Ag. Value or Accepted Tender Value (in case Agreement not yet drawn) Excluding the amount paid towards escalation, other claims, additional work done, etc. in Rs.	Stipulated / Revised/ Expected Month of completion as per Agreement or Tender Conditions (in case agreement not yet drawn)	Remarks
1	2	3	4	5	6	7

I/ We hereby declare that the above information furnished by me/us are true to the best of my knowledge and belief. I/We also declare that no information on this aspect (existing commitments) have been skipped or suppressed by omission or commission. In the event of this self-declaration is found to be false or misleading or incomplete during evaluation of my/our bid, the tender inviting authority or any other competent authority may take any punitive measure(s) against me/ us, as deemed fit by the authorities.

Signature of the Bidder
Date:

SCHEDULE – D

LIST OF TOOLS AND PLANTS, MACHINERIES AND EQUIPMENTS

Sl. No	List of tools and plants & equipments	Minimum Requirement	Owned/ Hired	Remarks
1	2	3	4	5
1.	Plate / Skid Vibrator	1 No.	Owned / Hired (not more than three years old & fully functional with good electro-mechanical condition)	Proof to be submitted in shape of purchased invoice/ bill or hire/lease agreement with the owner and uploaded with the bid. It will be verified with its original document in case the bidder is found L ₁ or L ₂ for the work herewith put to tender.
2.	Needle Vibrator	1 No	Owned/ Hired (not more than three years old & fully functional with good electro-mechanical condition)	Proof to be submitted in shape of purchased invoice/ bill or hire/lease agreement with the owner and uploaded with the bid. It will be verified with its original document in case the bidder is found L ₁ or L ₂ for the work herewith put to tender.
3.	Vehicle Mounted/ Driven Water Tank of 3000L capacity or more	1 No.	Owned/ Hired and fully functional with good electro-mechanical & hydraulic conditions.	Proof to be submitted in shape of purchased invoice/ bill or hire/lease agreement with the owner and uploaded with the bid. It will be verified with its original document in case the bidder is found L ₁ or L ₂ for the work herewith put to tender.
4.	Survey Instrument (Dumpy Level/ Auto Level/ Theodolite/ Total Station)	1 No.	Owned and with valid calibration and required precision/ accuracy.	Proof to be submitted in shape of purchased invoice/ bill or hire/lease agreement with the owner and uploaded with the bid. It will be verified with its original document in case the bidder is found L ₁ or L ₂ for the work herewith put to tender.
5.	Dewatering Pump set of 1 HP Capacity (at least 1 No.) and 3 HP capacity (1 No. or more) with appropriate suction & delivery pipes of minimum 50m length for each category of pump.	1 No.	Owned/ Hired (not more than three years old & fully functional with good electro-mechanical condition)	Proof to be submitted in shape of purchased invoice/ bill or hire/lease agreement with the owner and uploaded with the bid. It will be verified with its original document in case the bidder is found L ₁ or L ₂ for the work herewith put to tender.

6.	Steel / Plywood shuttering plates with steel/ wood stiffeners & supporting struts	For shuttering of at least 25 m long Drain (4 sides shuttering) and 50m long CC Road/ Pavement (2 sides shuttering) at any given time during execution of the work, herewith put to tender.	Owned/ Hired and in good condition for use at the work site.	This requirement will be verified at the field/ work site after award of the work to the successful bidder. If the successful bidder failed to deploy/ use these tools and plants in good condition resulting in delay of completion of the work or improper alignment of concrete works, it will be treated as a breach of contract and under such circumstance(s), the contractor will be liable for financial punishment as deemed appropriate by the authority.
7.	Vibratory Tandem Roller Compactor of about 9 Ton Weight	1 No.	Owned/ Hired	Proof to be submitted in shape of purchased invoice/ bill or hire/lease agreement with the owner and uploaded with the bid. It will be verified with its original document in case the bidder is found L ₁ or L ₂ for the work herewith put to tender.

SCHEDULE - E
SELF-DECLARATION/ SELF-AFFIDAVIT BY THE BIDDER

1. I/We have visited the site and have fully acquainted with the local situation regarding the materials, labour and factors pertaining to the work as per the DTCN for completion in all respect before submitting the tender.
2. I/We have carefully studied the conditions of the construction, specification, contract condition and all other document relating to this work and agree to execute the same accordingly.
3. I/We solemnly pledge that I/We shall be sincere in discharging my/our duties as a responsible contractor and complete the work within the prescribed time limit In case there are deviation from the construction program, I/We shall abide by the decision of authority for revision of the program and arrange for the labours, materials, equipments, etc., accordingly.
4. In the event of award of the work to me/us, I/We undertake the entire responsibility for structural stability, to reconstruct / replace the whole or part of the work in the event of failure or improper functioning/improper construction within a period as decided by the authority without asking for extra payment on any account from the authority.
5. I/We undertake that I/We shall not claim any escalation of cost on account of materials, labourers, taxes, natural calamities, public nuisance, miscreants or from any account in connection with execution of the work and for any correspondence(s) in this regard from my/ our side, the authority will be at liberty to respond or not/ accept/reject/ modify our claims within such time as the authority may deem fit
6. In case of violation/ tamper of contents of **the DTCN** floated by the authority in shape of insertion of extraneous conditions or in any other manner, my / our bid shall be rejected by the authority without assuming any liability for the same.
7. I/We hereby declare that I/we/ my or our company or firm or organization have not been declared insolvent nor have applied for declaration nor is/ are undergoing Corporate Debt Restructuring (CDR)/ Strategic Debt Restructuring (SDR) nor facing recovery proceeding from Financial Institution(s) nor declared nor under consideration as such by any Board for Industrial & Financial Reconstruction (BIFR).

SIGNATURE OF THE BIDDER

Date:

SCHEDULE - F
Form for Bid-Security Declaration

To

[Name and address of the Tender Inviting Authority]

I/We, the undersigned declare that:

1. I/We understand that, according to the DTCN my/our bid must be supported by a Bid-Security Declaration.
2. I/We accept that the Tender Inviting Authority shall cancel our empanelment and / or suspend/ prohibit/ debar/ blacklist from participating in bidding in any contract of the State of Odisha for a minimum period of 180 days, if we are in breach of our obligation(s) under the bid conditions because;I/We
 - (a) have withdrawn my/our bid prior to the expiry date of bid validity period specified in the DTCN or any extended date provided by me/us; or
 - (b) having been notified in the LoA about the acceptance of my/our bid by the tender inviting authority prior to the expiry date of bid validity period or any extended date provided to me/us by the tender inviting authority,
 - i. failor refuse to furnish the Performance Security and Additional Performance Security, if required, in accordance with the DTCN or
 - ii. fail to agree to the decisions of the contract negotiation meeting or
 - iii. fail or refuse to execute the Contract.
3. I/We understand that this Bid-Security Declaration shall expire if, I/we am/are not declared as the successful bidder orafter the expiry date of bid validity period.

Name of the Bidder:_____

Name of the person duly authorized to sign the Bid on behalf of the Bidder:_____

Designation of the authorised person signing the Bid (In case of Firm/Company/ Organisation):_____

Signature of bidder/authorized person:_____

Signed on Dt.:_____

SCHEDULE – G

FORM OF BANK GUARANTEE

[For Additional Performance Security/ Initial Security deposit]

To
The _____
_____.

WHEREAS:

(A) _____ [name and address of contractor] (hereinafter called the “**Contractor**”) shall execute an agreement (hereinafter called the “**Agreement**”) with the [.....] (hereinafter called the “**Authority**”)] for the work

subject to and in accordance with the provisions of the Agreement to be drawn.

- (B) The Agreement requires the Contractor to furnish Addl. Performance Security (APS)/ Initial Security Deposit (ISD) (strike out which is not applicable) for due and faithful performance of its obligations, under and in accordance with the Agreement, during the {Construction Period & Defects Liability Period} (as defined in the Agreement) for a sum of Rs. _____ (Rupees _____) (the “**Guarantee Amount**”).
- (C) We, _____ through our branch at _____ (the “**Bank**”) have agreed to furnish this bank guarantee (hereinafter called the “**Guarantee**”) by way of Additional Performance Security (APS)/ Initial Security Deposit (ISD) (strike out which is not applicable).

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Contractor’s obligations during the {Construction Period & Defects Liability Period} under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the **Authority stating that** the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due

- and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
 4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
 5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Contractor contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be relieved from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
 6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Contractor under the Agreement.
 7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited beyond the said period and the Bank shall be relieved from its liabilities hereunder.

8. The Guarantee shall cease to be in force and effect from Date.....Unless a demand or claim under this Guarantee is made in writing before expiry of the Guarantee, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post/ e-mail addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post, it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
11. This Guarantee shall come into force with immediate effect and shall remain in force and effect up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

Signed and sealed this _____ day of _____, 20____ at _____.

SIGNED, SEALED AND DELIVERED for and on behalf of the Bank by:

Signature of the Authorised Official:

Name:

Designation & Code No. of the Authorised Signatory:

Bank Name & IFSC:

Address of the Issuing Branch for Correspondence on the BG:

Contact No. & E-Mail ID for Correspondence on this BG:

NOTES:

- (i) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.
- (ii) The stamp papers of appropriate value shall be in the name of bank which issued the "Bank Guarantee".
- (iii) The bank guarantee shall be from a Nationalised/ Schedule Bank in Odisha.

SCHEDULE-H
LABORATOIREIS FOR QUALITY TESTING OF WORKS

Sl.	Name of the ULB	Name & Location of the Laboratory		Contact Details of the Laboratory
1.	Jajpur Municipality	1	Suvadra Consultants, H.Q-PP-97, Tankapani Road, In front of Radhika Tower, Bhubaneswar, Odisha-751018	9861024020 0674 - 2432090
2.	Cuttack Municipal Corporation	2	Research, Development & Quality Promotion (R&B), Bhubaneswar	Deputy Director
3	Bhubaneswar Municipal Corporation	3	IDAX Consultancy, Mancheswar Industrial Estate, Bhubaneswar	9937061009
4	Jatni Municipality	4	(R&B) Quality Control Division, OMP Square, Cuttack	
		5	SM Consultancy, Mancheswar, Bhubaneswar	
		6	CET, Bhubaneswar, Ghatikia	
		7	Centurion University, Sandhapur, Jatni	
		8	M/s Orbital Infrastructure Consultancy & Research Private Limited, Mahanadi Vihar, Cuttack	
5	Sunabeda Municipality	1	Research Officer, Zonal Laboratory, Sunabeda, Under R.W. Deptt	7978714961
		2	Research Officer, Zonal Laboratory (R&B), Sunabeda	9437511787
		3	Build Lab, Near Bijipur Tank, Berhampur	build.laboi@gmail.com
6	Berhampur Municipal Corporation	1	Build Lab, Near Bijipur Tank, Berhampur	build.laboi@gmail.com
7	Hinjilicut Municipality	2	Soil & Concrete Testing Laboratory, Ambapua Main Road, BAM	9437984957
8	Dhenkanal Municipality	1	(R&B) Quality Control Division, OMP Square, Cuttack	
		2	M/s Orbital Infrastructure Consultancy & Research Private Limited, Mahanadi Vihar, Cuttack	
		3	Zonal Laboratory (R&B), Dhenkanal (Backside of Collectorate)	Manoj Kumar Behera (SDO) 9439298367
		4	Central Laboratory, Quality Control Division, Rengali Colony, Mahisapat, Dhenkanal	06762-221291
9	Baripada Municipality	1	Divine College of Engineering and Technology	9437218241
		2	Quality Control Sub-Division (R&B), Baripada	
		3	Alfa Construction, Baripada	
10	Rourkela Municipal Corporation	1	National Institute of Technology (NIT), Rourkela	
		2	M/s P.P. Foundation, Dhabaleswar Colony, Balughat, Rourkela	
		3	Scientific Officer, Govt. Testing Laboratory, Near FCI, Jail Road, Rourkela	

SCHEDULE-I

LIST OF TESTS TO BE CONDUCTED DURING CONSTRUCTION OF PROJECTS

1. For paver blocks/ kerb stones or blocks, the quality certificates should be provided by the manufacturer for each consignment.
2. For concrete roads the following tests are to be done.
 - a. Slump cone test of concrete mix for each batch.
 - b. Compressive strength test (7 days & 28 days) using concrete cubes to be collected at site during construction of the road/ drain.
 - c. Core cutting test for thickness measurement of the road and for equivalent compressive strength.
 - d. For PCC (1:3:6 or 1:4:8), sieve analysis of coarse aggregates.
 - e. For Ready Mix Concrete, test certificate featuring the mix proportions, type and make of cement used, plasticizer/ admixture details (if added) and Grade of Concrete supplied for each project.
3. For asphalt roads the following tests are to be done.
 - a. Quality and Grade of Bitumen used at Hot Mix Plant – Certificate to be provided by the Hot Mix Plant Entity.
 - b. Bitumen content test in the mix.
 - c. Temperature test of bitumen mixed aggregate before laying.
 - d. Core test after laying and compaction for density and thickness of the asphalt road constructed.
4. For Sub-base the following tests are to be done.
 - a. Compaction or density test
 - b. Sieve analysis of coarse aggregate
 - c. CBR or Los Angeles Abrasion Test

- N.B:**
1. The date, time and location of sample collection, preservation and laboratory for testing of the samples shall be as per direction of the Engineer-in-Charge.
 2. Frequency of sampling and testing shall also be as per direction of Engineer-in-Charge .
 3. Type and no. of test(s) to be conducted from the aforesaid list shall be decided by the Engineer-in-Charge.

SCHEDULE - J
FORMAT FOR LETTER OF ACCEPTANCE OF TENDER (LoA)

Name of the Organization/ Office

To

Sub: Letter of Acceptance (LoA) of the tender for the work,
“.....”.

Ref: This office Bid Reference or NIT No.....Dt.....

Dear Sir/ Madam,

With reference to the above, the undersigned is pleased to inform that your tender for the work, “.....”, amounting to **Rs.....** (Rupees.....) only (excluding GST) which is% **less/excess** than or over the estimated cost of **Rs.....** put to tender, has been accepted by this office. GST shall be paid and deducted at source of payment as per Govt. of Odisha rules prevailing from time to time for work contracts till financial closure of your contract for the aforesaid work. It is requested to submit a work program for execution and completion of the work starting from the expected date of drawl of agreement.

You are also requested to deposit Performance Security amounting to **Rs.....** or more @ **2%/1%** of the accepted bid value and Addl. Performance Security (APS) amounting to **Rs.....** or more. The Performance Security amount should be in shape of NSC/ Term Deposit/ Fixed Deposit/ Post Office Time Deposit/ KVP, duly pledged in favour of the The APS should be in shape of TDR of any nationalized/ schedule bank of India and pledged in favour of the You can also submit Performance Security and APS in shape of separate Bank Guarantees in favour of The Bank Guarantees should have been issued from/through or counterguaranteed by any Nationalized/Schedule Bank located at The Bank Guarantee for APS should remain valid till Dt.....(one month after expiry of the duration for completion of the work) and the Bank Guarantee for performance security should remain valid till Dt.....(one month after expiry of defect liability period of one year from the scheduled date of completion of the work). Along with this Performance Security and APS you are requested to contact the for drawl of agreement.

It is requested to comply with this instruction within **7 days** from the date of issue of this letter. Failure to submit the APS, Performance Security and sign the agreement within the prescribed time period will lead to cancellation of this LoA followed by other actions as deemed appropriate against you.

Receipt of this letter may kindly be acknowledged.

Yours faithfully,

Signature of the Authority

Memo No. _____/ Date.

Copy submitted to the Hon'ble Mayor, CMC/Commissioner, CMC/ City Engineer, CMC for kind information and necessary action.

Signature of the Authority

- Note:
- (1) Strikeout the 'word' or 'sentence' which is not applicable such as; Sir, Madam, ISD, APS, 2% or 1% of ISD, less, excess, than, over, etc., in the above LoA.
 - (2) Copy of this, LoA may be sent to other officials/ entities as per the prevailing practice of the corresponding ULB.
 - (3) The LoA should be sent by the authority to the successful bidder through the e-mail ID and intimated over the telephone number of the successful bidder as declared by him/her/them in its bid documents. In addition to this, the LoA may also be sent (optional) through 'Speed Post' in the correspondence address of the successful bidder, as declared by him/her/ them in its bid documents.

SCHEDULE-K

AFFIDAVIT(TO BE SWORN IN NON-JUDICIAL STAMP PAPER BEFORE NOTARY/EXECUTIVE MAGISTRATE)

(Applicable for All Bidders)

1. I, Sri/Smt/Ms.....,Son/Daughter/Wife of, hereby declare as the Contractor/as the authorized signatory on behalf of the Contractor,"....."***(strike out whichever is not applicable)*** that, I/we am/are validly registered as Class Contractor under Govt. of Odisha.
2. It is hereby declared that I/we are not currently deprived from tendering in any Govt. Organisation of Odisha/India and I/we have furnished the required eligibility documents as a valid tenderer for the above mentioned work.
3. I/We hereby authorise and request any bank, person, firm or organisation to furnish information to the authority inviting tender for this work, as deemed necessary by it in connection with my/our eligibility criteria and document verification related to my/our tender for the work mentioned below. I/We also authorise the authority inviting tender for this work to refer, peruse, consider & correlate my/our documents submitted in connection with other tenders under Govt. of Odisha/India and I /we have no objection, if such documents either in whole or part are perused, referred and considered.
4. I/We undertake to submit further information/ documents as may be requested for/required by the authority inviting tender for this work in connection with this tender within the stipulated period to be intimated by the authority inviting tender for this work either through letter or through my/our e-mail ID or Telephone No. furnished below. Non-response to this instruction by me/us within the stipulated period shall render my/our tender as non-responsive/incomplete and hence the authority inviting tender for this work shall be at liberty to take any action as deemed fit against me/us as well as to cancel my/our tender for the work and I/we will have no claim against such decision of the authority inviting tender for this work.
5. My/our present address for correspondence is and my/our Telephone Contact number is.....and e-mail ID for correspondence is.....I/We shall promptly and voluntarily intimate the Tender Inviting Authority about subsequent changes, if any, of my/our telephone number, e-mail ID and address for correspondence within a week from the date of occurrence of such change(s) falling which, I/we will be held responsible for any eventual delay/gap in correspondence(s)/communication(s) between me/us and the authority inviting tender for this work and subsequent follow-up action(s) and situation which may arise due to such delay/gap.
6. I/We hereby declare that all the information and documents furnished herewith by me/us in connection with my/our tender for the work, "-----"invited by the authority inviting tender for this work **vide Bid Reference No..... Dt.....** are true and correct.
(*) - Strike out which is not applicable. Original of this affidavit is to be submitted as and when asked for by the tender inviting authority.

(Deponent)

B. TENDER DOCUMENTS

12. Tender Documents:

12.1. A set of Tender Documents comprising of the DTCN & BOQ includes the following together with all Addenda thereto, which may be issued in accordance with **Clause 2(B) 13 and Clause 2(B) 14.**

Section	Description
DTCN Part – I: General & Technical- Bid	
Section-1	Notice Inviting Tender
Section-2(A)	Details of the Documents to be Furnished for Online Bidding
Section-2(B)	Instructions to Bidders
Section-2(C)	Data Sheet
Section-2(D)	Letter for Submission of Tender
Section-3	Conditions of Contract
Section-4	Special Conditions of Contract
Section-5	Scope of Work
Section-6	Technical Specifications & Design Criteria
Schedule-A to L	Formats for furnishing Information by the Bidder
Annexure-I	Guidelines/Procedure to be followed in introduction of e-Procurement in Govt. of Odisha
Appendix - II	Procedure for Electronic Receipt, Accounting and Reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids
DTCN Part – II: Financial Bid - Bill of Quantity	

12.2. The Contractor is expected to examine carefully all instructions, terms of reference, tender conditions, forms, appendices to tender, addenda in the tender documents. Failure to comply with the requirements of tender submission will be at the contractor's own risk.

13. Clarification of Tender Documents:

- The Contractor shall carefully examine the tender documents and be fully informed of all the conditions and matters, which may in any way affect the work or the cost thereof. Should a Contractor find any discrepancy in or omission from the specification or any other of the tender documents or should he be in doubt as to their meaning, he should immediately address a clarification online **as per the critical dates mentioned in the DTCN.**
- The bidder may ask question related to tender online in the e-procurement portal using his/her DSC, provided the questions are raised within the period of seeking

clarification as mentioned in Tender call notice/Bid. The officer inviting the Bid/Procurement officer-Publisher will clarify queries related to the tender.

- **No paper copy of the bid shall be sold.**
- The Contract Data to bid shall be filled and completed in the office of Officer inviting bid before issue of bid **documents**. If the documents are issued to the intending bidder without having been so filled in & completed, he shall request the officer inviting the bid to have this done before he completes and delivers his bid.

14. **Amendment of Tender Documents:**

- 14.1. At any time prior to the dead line for submission of tenders, Cuttack Municipal Corporation may for any reason, whether at its own initiative or in response to the clarifications requested by the prospective Contractor, modify the tender documents by issuing an Addendum.
- 14.2. Such addenda will be notifying in the website and will be binding upon them.
- 14.3. In order to afford prospective Contractor reasonable time to take such addenda into account in preparing their tenders, Cuttack Municipal Corporation. at his discretion, may extend the dead line for the submission of tenders, if necessary.
- 14.4. The system generates a mail to those bidders who have already uploaded their tenders and those bidders if they wish can modify their tenders. The bidders are required to watch the website till last date and time of bid submission for any addendum/corrigendum/cancellation thereof. Tender inviting authority is not responsible for communication failure of system generated mail.

C. PREPARATION OF TENDER DOCUMENT

Guidelines for preparation of bids on line mode has been issued by Government in Works Department letter No.1027 dated 24.01.09 and appended at last part of this document. The bidders are required to go through the procedure before preparation of bids.

15. **Language of the Documents:**

All documents relating to the Tender shall be in the English language.

16. **Documents Comprising the Tender:**

- (a) Detailed Tender Call Notice(DTCN)
- (b) Bill of Quantities.
- (c) All documents stipulated elsewhere in the DTCN.

17. **Sufficiency of Tender:**

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the services to be provided and of the prices quoted in the financial bid, which shall cover all his obligations under the contract and all matters and things necessary for the successful accomplishment of the work.

18. **Preparation of Proposal:**

- 18.1. The Proposal [see Section-2(B) Clause 1(J)] as well as all related correspondence exchanged by the employer & the Contractor shall be written in the language specified in the Data Sheet.

18.2. In preparing the proposal, the Contractor is expected to examine in detail the documents comprising the DTCN. Material deficiencies in providing the information requested may result in rejection of a proposal.

18.3. **Site Inspection by tenderer.**

The tenderer shall inspect the site at his own cost and shall satisfy himself with regard to the nature and extent of the work involved, the actual site conditions, existing facilities and shall collect any other information which may be required before submitting the tender. Any further data required during execution of the work / scheme shall be ascertained by the contractor at his own cost.

19. **Technical Proposal Format and Content:**

The Contractor should have sufficient man power to execute & complete the work within the time schedule. He should have sufficient financial background / machinery and equipment required for execution of the work / free from litigation / have good working record of completion of the works in time. It may be noted that the contractor should satisfy the minimum eligible criteria for award of Contract. The Technical Proposal shall provide the information indicated in the following paragraphs [clause 2(B) 19.1 to 2(B)19.7] using the attached Standard Forms. A page is considered to be one printed side of A4 or letter size paper.

19.1 The Contractor has to furnish the structure & organisation details in **Schedule-‘A’**.

19.2 A description of the approach, methodology and work plan for performing the assignment.

19.3 Copy of GST.

19.4 Copy of PAN Card.

19.5 Copy of Registration Certificate.

19.6 General Power of Attorney if required in favour of the authorised signatory.

19.7 Other information as required.

20. **Bill of Quantities:**

20.1. The Contractor shall quote his rates on prescribed form of the Bill of Quantities (BoQ) already supplied in the Tender.

20.2. The offer shall be inclusive of all costs associated with the assignment including cost of all materials to be utilized **as per scope of work** cost of T&P, consumables, infrastructure backup etc. The offer shall also be inclusive of all duties, levies, taxes of the Central and State Govt. Further it shall also include all other expenses incidental thereto for successful accomplishment of the assignment in conformity with the DTCN.

20.3. The contractor should make realistic assessment of the exhaustive nature of work and the extent of expert technical and managerial inputs and resources required to carry out the work diligently to complete the work within the stipulated time and quote their offer accordingly.

20.4. The rate quoted by the firm shall be firm.

21. **Tender Validity:**

21.1. The proposal must remain valid for **90 (Ninety)** days from the date of opening of Bid.

21.2. A Contractor agreeing to the request of extending the validity period of the proposal will not be required or permitted to modify his tender, but will be required to extend the validity of his EMD.

22. **Authorisation, Corrections, Erasures etc. in Tender Papers:**

- 22.1. The tender document shall be digitally signed by a person duly authorized to do so. Proof of authorization shall be furnished in the form of a certified copy of Power of Attorney, which shall accompany the tender.
- 22.2. The completed tender shall be submitted without any alterations, inter-relations or erasures except those which accord with instructions given by the **EXECUTIVE ENGINEER, City Division-III, CMC, Cuttack**.
- 22.3. Only one tender shall be submitted by a contractor. Submission of bids through e-Procurement portal the system shall consider only the last bids submitted through portal.

23. **Earnest Money Deposit / ISD / SD / Additional Perform Security & GST Registration:**

23.1. **Earnest Money Deposit:**

The **Earnest Money Deposit (EMD)** of **1 % of Estimated Cost** shall be remitted on **online mode**. Tenders without EMD or with Part EMD or EMD in any other form shall not be accepted and such tenders shall be out rightly rejected

23.2. **Return of EMD:**

The Bank will remit the **Earnest Money Deposit on submission/ cancellation of bids** to respective bidders accounts as per direction received from TIA through e-procurement system.(as per the Appendix-II of DTCN).

The earnest money given by other two parties (L₂& L₃) except one whose tender is accepted shall also be refunded within 15 (fifteen) days of the acceptance of the tender on application / request.

EMD shall also be returned to the unsuccessful bidders of General & Technical Bid (Part –I of tender documents) after finalisation of its evaluation or last date of the tender validity period whichever is earlier on application/request.

23.3. **Initial Security Deposit:**

The successful Tenderers, after receipt of formal order shall have to furnish Initial Security Deposit (ISD) equal to **2% (two percent)** of the accepted value of the tender in shape of NSC/Postal Saving Pass Book /Post Office Time Deposit /Kishan Vikash Patra/Deposit Receipt in Schedule Bank duly pledged in favour of the **Municipal Commissioner, CMC, Payable at Cuttack** within 7(seven) days of receipt of intimation failing which their tender shall be cancelled with the forfeiture of EMD.

23.4. Additional Performance Security:

Additional Performance Security shall be obtained from the bidder when the bid amount is less than estimated cost put to tender. In such an event, only the successful bidder who has quoted less bid price/ rates than the estimated cost put to tender shall have to furnish the exact amount as Additional Performance Security (APS) as per following **instructions mention as per Works Department Government of Odisha Vide OM No-4559 Date-05.04.2021** and in shape of Demand Draft/ Term Deposit Receipt pledged in favour of the Municipal Commissioner **within seven days, otherwise the bid shall be cancelled and the security deposit shall be forfeited. Further, proceeding for blacklisting shall be initiated against bidder as per Works Department Office Memorandum No.14299 dtd.03.10.2017.**

Sl No	Rang of Difference between the estimate cost put to tender and Bid amount.	Additional Performance Security to be deposited by the successful bidder.
1	Below 5%	No Additional Performance Security.
2	From 5% and above and below	50% of (Difference between

	10%	estimated cost put to tender and Bid Amount)
3	From 10% and above	150% of (Difference between estimated cost put to tender and Bid Amount)

On intimation from the tender inviting authority, the Successful bidder shall submit the required amount of Additional Performance Security in shape of NSC/ Postal Saving Pass Book /Post Office Time Deposit /Kishan Vikash Patra /Deposit Receipt in Scheduled Bank duly pledged in favour of **Municipal Commissioner, Cuttack Municipal Corporation** Payable at **Cuttack** before issuance of Work/Supply order.

23.5. GST Clearance Certificate:

Tenderers are required to submit attested copies of valid and up-to-date GST Clearance/ GST Registration Certificates along with their tenders, failing which their tenders will not be considered.

23.6. Security Deposit

In addition to above, 5% of gross value will be deducted from bill(s) of the contractor toward Security Deposit (SD) which will be refunded after the defect liability period subject to payment of final bill.

23.7. The EMD shall be forfeited, if, (a) a contractor withdraws the tender during the validity period of tender or (b) if the firm fail to furnish ISD within due time or (c) the successful tenderer fails to sign the Agreement for whatever reason.

23.8. In consideration of the Executive Engineer / City Engineer / Chief Engineer, PH Cum ILW /Municipal Commissioner, Cuttack Municipal Corporation to investigate and to take into account each tender and in consideration of the work thereby involved, all earnest money deposited by the tenderer will be forfeited in the event of such tenderer either modifying or withdrawing his tender at his instance within the validity period.

24. Signing of Tenders / Bid

All tender documents will be signed digitally with Digital Signature Certificate (DSC). The online bidder shall digitally sign on all statements, documents, certificates, uploaded by him, owing responsibility for their correctness / authenticity as per IT Act'2000. If any of the information furnished by the bidder is found to be false / fabricated / bogus, his EMD / Bid security shall stand forfeited and the bidder is liable to be blacklisted.

24.1 If the tender is made by an individual, it shall be signed with his own Digital Signature Certificate (DSC).

24.2 If the tender is made by a corporation / company, it shall be signed by a duly authorized officer who shall produce with his tender satisfactory evidence of his authorization. Such a corporation / company may be required before the contract is executed, to furnish evidence of its corporate existence.

The tender shall contain no alterations or additions, except those to comply with instructions issued by the Tender Inviting Officer, or as necessary to correct errors made by the Tenderer, in which case all such corrections shall be digitally signed.

- 24.3 No alteration made by the tenderer in the contract form, the conditions of the contract, statements / formats accompanying the tender shall be recognized and in case of any alterations made by the tenderer, the tender will be void.
- 24.4 All documents furnished by the contractor along with the tender are to be digitally signed by the bidder.

25. **Clarification on and Amendment to DTCN Document:**

- 25.1. Contractor may request a clarification to any clause of the DTCN documents up to the number of days indicated in the Data Sheet before the proposal submission date. Any request for clarification must be sent online in the portal. The Employer will respond to this online through the same portal. Should the Employer deem it necessary to amend the DTCN as a result of a clarification, it shall do so following the procedure under para.2 (B) 25.2.
- 25.2. At any time before the submission of Proposals, the Employer may amend the DTCN by issuing an addendum/corrigendum which shall be published in the portal. The addendum/corrigendum shall be binding for the bidders. To give the bidders a reasonable time to take into account the amendment into their proposals the Employer may, if the amendment is substantial, extend the deadline for the submission of proposals. The purpose of this is to clarify issues on any matter, a tenderer may raise concerning the tendering of the works.

D. SUBMISSION OF TENDERS

- 26 In view of adoption of e-procurement process pursuant to Government of Odisha in Works Department Office Memorandum No.FA-R-3/08-4657/W dated 12.03.2008, 4666/W dated 12.03.2008 & 1027/W Dt.24.01.2009 following changes/ modification/ addendum shall be effected.
- 26.1. **Bid Documents:**
Bid documents consisting of DTCN & BOQ shall be provided in the portal. Submission of bids will be through the e-Procurement portal. The bidders shall prepare the documents & up load the scanned document to the portal in appropriate place in PDF format.
- 26.2. **Documents Comprising the Bids:**
In case of submission of Bids through the e-Procurement Portal, the bidder can submit the scanned copy of the documents in the designated locations of the DTCN & BOQ. Submission of document shall be effected using Digital Signature Certificate (DSC) of appropriate class and thus shall be in encrypted form.
- 26.3. **Bid Price: (BoQ)**
Bill of Quantity in Microsoft Excel format shall be made available to the bidder. The bidder shall down load that particular Excel sheet and fill in rates in figures at the appropriate location. The bidder will only fill in the designated cell and activate “less” or “excess” to indicate whether his price offer is how much excess or less than the estimate amount. **The bidder is not supposed to change or modify the format of the excel sheet in any form.**
- 26.4. **Bid Security/EMD:**
- (i) The bidder shall remit bid security for the amount shown in Col. 5 of the table of Notice Inviting Tender (NIT) **on online mode.**
 - (ii) The EMD will be forfeited in any of the following case.
 - a) If the Bidder withdraws the Bid after Bid opening during the period of Bid validity.
 - b) If the Bidder does not accept the correction of the Bid Price.
 - c) In the case of a successful Bidder, If the Bidder fails within the specified time limit to
 - i) Sign the Agreement / contract or
 - ii) Furnish the required ISD and Performance Security.
 - d) In case of submission of Bids through the e-Procurement Portal, if any of the statements, documents, and certificates up loaded by the bidder is found to be false/ fabricated/ bogus, the bidder will be blacklisted and his EMD/ Bid Security shall be forfeited.
- 26.5. **Submission of Bid:**
In case of submission of bids through e-Procurement portal on the bidder shall upload the scanned copy/copies of documents as required as per DTCN. The on line bidder

shall have to produce the original documents in support of scanned copies & statements up-loaded in the portal on demand by the employer prior to award of contract-failing which action as per DTCN will be initiated.

In case of submission of Bids through the e-Procurement Portal, the bidder shall only submit single copy of the document. He is required to check the documents uploaded with the requirement asked for in the bid. Only after satisfying that all the documents have been uploaded, he should activate submit button. His bids shall not be considered responsive and action as per relevant clause shall be taken if he does not provide the required documents or provided illegible document. Clarity of the document may be ensured by taking out a sample printing.

26.6. **Late Bids:**

In case of submission of Bids through the e-Procurement Portal, the system shall reject submission of any bid through portal after closure of the receipt time. For all purpose the portal time displayed in the system shall be the time to be followed by the bidder.

27. **Modification & Withdrawal of Bid:**

In case of submission of Bids through the e-Procurement Portal, it is allowed to modify the bid. The bidder shall have to log on to the system and resubmit the documents as asked for by the system including the price bid. In doing so, the bids already submitted by the bidder will be removed automatically from the system and the latest bid only will be admitted. But the bidder should avoid modification of bid at the last moment to avoid system failure or malfunction of internet or traffic jam. If the bidder fails to submit his modified bids within the designated time of receipt, the bids already in the system shall be taken for evaluation.

In case of submission of Bids through the e-Procurement Portal, withdrawal of bid is allowed. The bidder has to click on the “withdraw” button and record the necessary justification for the same in the space provided. In addition to this, he has to write a letter addressed to the Officer inviting the bid and up load the scanned document to portal in respective bid. The system shall not allow any withdrawal after expiry of the closure time of the bid.

28. **Bid Opening:**

In case of submission of Bids through the e-Procurement Portal, the bidders who participated in the online bidding can witness opening of the bid from any system logging on to the portal away from opening place. The bids can only be opened by the pre-designated officials only after the opening time mentioned in the bid.

29. **Award of Work:**

In case of submission of Bids through the e-Procurement Portal, the system shall generate the Award of Contract letter and intimate the bidders in his e-mail.

E. TENDER OPENING AND EVALUATION

30. Tender Opening:

30.1 The **EXECUTIVE ENGINEER, City Division-III, CMC, Cuttack** will open the tenders electronically on the date & time mentioned in the **Notice Inviting Tender (NIT)**.

30.2 **A) A tender shall be rejected if;**

- i) BOQ is not enclosed.
- ii) Cost of tender document has not remitted online on submission of bid.
- iii) EMD as per Clause 2(B) 23.1 has not remitted online on submission of bid.
- iv) Proof of eligibility is not enclosed.
- v) PAN is not enclosed.
- vi) Affidavit/Format is not enclosed as in **Schedule- A-L**.
- vii) Copy of GST Registration.
- viii) If the rate quoted by the bidder is less than 15% of the tendered amount.

30.2 **B) Tenderer should up load other required documents as stipulated in the Section-2(A) of DTCN.**

30.3. The **EXECUTIVE ENGINEER, City Division-III, CMC, Cuttack** may prepare, for his own record, minutes of the tender opening, including the tender opening summary which shall be posted in the portal.

31. Clarification on Tenders from Tenderers:

To assist in the scrutiny, evaluation and comparison of the tenders, the **EXECUTIVE ENGINEER, City Division-III, CMC, Cuttack** may ask contractor individually for clarification on their tenders. The request for clarification and response shall be in writing or by mail. However, no change in the tender amount/ rate or substance shall be sought, offered or permitted by the Cuttack Municipal Corporation during the evaluation of the tenders.

32. Determination of Responsiveness:

32.1 Prior to the detailed evaluation of tenders, **EXECUTIVE ENGINEER, City Division-III, CMC, Cuttack** will determine whether each tender has been submitted in the proper form and whether it is substantially responsive to the requirements of the tender documents.

32.2 Any tender which is not substantially responsive to the requirements of the tender documents as mentioned in 30.2(A) will be rejected by the **EXECUTIVE ENGINEER, City Division-III, CMC, Cuttack**; such a tender shall not be allowed subsequently to be made responsive by the contractor by correcting or withdrawing the non-conforming deviation(s) or reservation(s).

33. Proposal Evaluation:

33.1 From the time of the proposals are opened to the time, the contract is awarded, the contractor should not contact the client on any matter related to its proposal except any required in Clause-2(B)31.

33.2 Any effort by a bidder to influence the client in any form directly or indirectly during the examination, evaluation, ranking of proposals, and recommendation for award of the contract may result in the rejection of the contractor's proposal.

33.3 Evaluation of the Bid:

33.3.1 The Evaluation Committee shall evaluate the Bids on the basis of their responsiveness to the DTCN.

33.3.2 A Bid shall be rejected at this stage if it does not respond to required aspects of the TCN / DTCN.

33.3.3 The bids determined to be substantially responsive will be checked by the employer for any arithmetic error(s).

33.3.4 The Evaluation Committee will correct any computational errors. When correcting computational errors, in case of discrepancy between a partial amount and the total amount or between words and figures, the amount in words will prevail.

33.3.5 If the bid price increases as a result of these corrections, the amount as stated in the bid will be the bid price and any increase will be treated as rebate. If the bid price decreases, the decreased amount will be treated as bid price.

33.4 Selection of Contractor:

34 As per Office Memorandum No. 07764600022025/173/W, Bhubaneswar Dt. 03.01.2026 of Works Department, Government of Odisha.

35

36 After careful observation, Government has been pleased to abolish the extant provisions of threshold negative bid caps (14.99%) introduced in Appendix-IX, Clause 36 of OPWD Code Volume-II in the procurement of works undertaken by the Govt. of Odisha and its agencies to ensure the procurement process results in a viable and successful manner with adoption of following incremental Additional Performance Security(APS) system :

37 1. Additional performance security shall be taken on an incremental basis from the selected bidder for low bid prices in the project works as under:

38 • where the bid price is below 0% but not below 10% of the project cost put to bid, no additional performance guarantee/security percentage is required.

39 • where the bid price is below 10% but not below 20% of the project cost put to bid, the additional performance guarantee/security percentage shall be incremented by 0.1% for every percentage of bid price below 10% of the project cost put to bid starting at 11% with the additional bid performance guarantee being 0.1% and this additional performance guarantee percentage shall be applied on the bid price;

40 • where the bid price is 20% or more below of the project cost put to bid, the additional performance guarantee percentage shall be incremented by 0.2% for every percentage of bid price below 20% of the project cost put to bid in addition to 1% of the bid price and this additional performance guarantee percentage shall be applied on the bid price;

41 • The additional performance guarantee percentage shall be rounded off to the next lower percentage based on whether the decimal point of the percentage of bid price is below 0.5% or next higher percentage based on whether the decimal point of the percentage of bid price is 0.5% or more.

42 • The additional performance security shall be treated as part of the performance security.

43 • Justification for abnormally low bids shall be scrutinized by the Departmental Technical Committee and recommended to the competent authority of the Administrative Department for the approval of the Additional Performance Security(APS). An abnormally low bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the

contract at the offered price. Procuring Entity may, in such cases, seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to scope, schedule, resource mobilization, allocation of risks and responsibilities, and any other requirements of the bid document., If, after evaluating the price analyses, the procuring entity determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the Procuring Entity may reject the Bid/ Proposal. However, it would not be advisable to fix a normative percentage below the estimated cost, which would automatically be considered as an abnormally low bid.

As per Office Memorandum No. 07764600022025/632/W, Bhubaneswar Dt. 09.01.2026 of Works Department, Government of Odisha.

1. The phrase "....to abolish the extant provisions of threshold negative bid caps (14.99%) introduced" in the first para of the Works Department OM No. 173 dated. 03.01.2026 may be read as ".... to abolish the extant provisions of threshold negative bid caps of 15 % introduced vide Works Department OM No. 123661W dt. 08.11.2013 and amended vide Works Department OM No. 1437 dt, 31.01.2023"

2. If more than one bid is quoted (decimal up to two numbers will be taken for all practical purposes), either at the estimated Cost put to tender or less than the estimated cost put to tender, the tender accepting Authority will finalize the tender through a transparent lottery system, where all the concerned bidders/their authorized representatives, the concerned SE/EE of the concerned Division and Divisional Accounts Officer (DAO) will remain present.

3. If the rate quoted by the SC and ST Category Contractors comes to the rate quoted by the L 1 bidder (decimal up to two numbers will be taken for all practical purposes) after availing 10% price preference as per Para 2 of Works Department Resolution No. 27748 dated. 11.10.1977, the tender shall be finalized by the tender accepting authority through a transparent lottery system along with other categories of contractors.

4. As regards the bidding process in which the tender has been floated before the issue of Works Department Office Memorandum No.173 dt 03.01.2026, the bid shall be finalized as per the earlier provisions in Appendix-IX, Clause 36 of OPWD Code Volume-II.

(a) The quantity mentioned in the BOQ can be increased or reduced to the extent of 10% for individual items subject to maximum of 5% over the estimated cost. If it exceeds this limit prior approval of competent authority is mandatory before payment

(b) The period of completion is fixed and cannot be altered except in case of exceptional circumstances with the due approval from next higher authority.

34. **Negotiations:**

Negotiations will be held if required with the lowest valid tenderer. In the event of the L₁ tenderer has furnished any condition which grossly affects the tender value / contains such conditions which make the value of the offer indefinite, he may be given an opportunity to withdraw such condition(s) to make the tender definite. Failure to withdraw such condition(s) may lead to rejection of the tender as inconsistent / non responsive. In such case the employer may explore the possibility of considering the next valid tender as L₁.

If L₁ bidder does not turn up for agreement after finalisation of the tender, then he shall be debarred from participation in bidding for three years and action will be taken to black list the contractor. In case, the L₂ bidder, if fulfils, other required criteria would be called for drawing agreement for execution of work subject to condition that L₂ bidder negotiates at par with the rate quoted by the L₁ bidder otherwise the tender will be cancelled. (As per the Government of Odisha, Works Department Office Memorandum No.12366 dated

08.11.2013 on amendment to Para No. 3.5.14, Note-I of OPWD Code Vol-I, by inclusion.)

F. AWARD OF CONTRACT

35. Award Criteria:

35.1. After acceptance of the bid by competent authority, the selected contractor will be intimated about such acceptance.

35.2. The contractor is expected to commence the work on the date and at the location specified in the Data Sheet.

35.3 The officer in charge will award the contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has offered the lowest evaluated price.

35.4 The Employer/Engineer-in-Charge shall notify acceptance of the work prior to expiry of the validity period by cable, telex or facsimile or e mail confirmed by registered letter. This letter of acceptance will state the sum that the Engineer-in-Charge will pay the contractor in consideration of execution completion of the Works by the contractor as prescribed by the contract & the amount of Performance Security and Additional Performance Security required to be furnished. The issue of the letter of Acceptance shall be treated as closure of the Bid process and commencement of the contract.

35.6 On acceptance of the tender, the Contractor shall name in writing his accredited representative(s) who would be responsible for taking instructions from the Engineer-in-Charge.

35.7 Competent Authority on behalf of Governor of Orissa reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.

35.8 The successful bidder registered under other State Government / MES / Railways / CPWD in equivalent rank has to register under state PWD before signing of the agreement.

36. Right to Accept or Reject any or all Tenders:

Notwithstanding Clause 2(B)35, the **EXECUTIVE ENGINEER, City Division-III / City Engineer / Municipal Commissioner CMC, Cuttack** reserves the right to accept or reject any tender, annul the tendering process, reject all tenders at any time or any stage prior to the award of contract without thereby incurring any liability to the affected bidders.

37. Process to be Confidential:

37.1. After the opening of tenders as per Clause 2(B)30 & 2(B)33, information relating to examination, clarification, evaluation and comparison of tenders and recommendations, concerning to the award of contract shall not be disclosed to the contractor or any other persons, officially not concerned with the process, until the award of the contract to the successful contractor has been announced.

37.2. Any effort by any contractor to influence the Department officials in scrutiny, clarification, evaluation and comparison of tenders, and in any decisions concerning award of a contract, may result in the rejection of their Tender.

38. Notification of Award & signing of Agreement:

- a) The Employer/ Engineer-in-charge shall notify acceptance of the work prior to expiry of the validity period by cable, telex or facsimile or e-mail confirmed by registered

letter. This Letter of acceptance will state the sum that the Engineer-in-charge will pay the contractor in consideration of the execution & completion of the works by the contractor as prescribed by the contract & the amount of performance security and additional performance security required to be furnished. The issue of the letter of acceptance shall be treated as closure of the Bid process and commencement of the contract.

- b) The contractor after furnishing the required acceptable performance security and additional performance security, "Letter to Proceed" or "Work Order" shall be issued by the Engineer-in-charge with copy thereof to the procurement Officer-Publisher. The Procurement Officer-Publisher shall upload the summary and declare the process as complete.
 - c) In the e-Procurement Portal, the system shall generate the template of award letter and the Officer Inviting the Bid shall mention the amount of Performance Security and additional security required to be furnished in the letter and intimate the bidders in his e-mail ID. The issue of the letter of acceptance shall be treated as closure of the Bid process and commencement of the contract.
 - e) The bidder shall within **07 days** of issue of letter of acceptance, furnish the Performance security & additional Performance security (if any) in the prescribed form & the work programme & shall sign the agreement in prescribed format, failing which the Engineer-in-Charge shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the Bid Security absolutely. The agreement will incorporate all agreements between the officer inviting the bid and the successful bidder.
 - f) If **L1 bidder does not turn up for agreement** after finalization of the tender, then he shall be debarred from participation in bidding for three years and action will be taken to blacklist the contractor. In that case, the L2 bidder, if fulfils, other required criteria would be called for drawing agreement for execution of work subject to the condition that L2 bidder negotiates at par with the rate quoted by the L1 bidder otherwise the tender will be cancelled. In case a contractor is black listed, it will be widely published and intimated to all departments of Government and also to Govt. of India agencies working in the state.
- (Amendment to Para-3.5.14 Note-I of OPWD Code Vol.-I by inclusion)**
- g) Following documents shall form part of the agreement**
- i. The notice inviting bid, all the documents including additional conditions, specifications and drawings, if any, forming the bid as issued at the time of invitation of bid and acceptance thereof together with any correspondence & documents leading thereto & required amount of performance security including additional performance security as per sub clause 37
 - ii. Standard Bid Document P.W.D. Form **P-1**.
 - iii. The letter to proceed with the work shall be issued by Engineer-in-charge only after signing of the agreement. The notification of award will constitute the formation of the contract subject only to the furnishing of performance security and additional performance security in accordance with the provisions of the agreement.
 - iv. On acceptance of the composite bids by the competent authority the letter of award will be issued by the Engineer-in-Charge of the major component of the work on behalf of the Governor of Odisha.

SECTION- 2(C)

DATA SHEET

Ref Cl. No.	Description
	Name of the Work: - As per NIT.
Section-5	Scope of Works: - “As per NIT”.
2(B)1.(a)	Name of the Employer: Municipal Commissioner, CMC, Cuttack
2(B)33.4	Method of selection: Qualifying in the Bid (L₁).
2(B)26.	Single/Double Bid System: To be submitted as per DTCN.
2(B)15.	Proposals shall be submitted in the following language: English
2(B)21.	Offers must remain valid for 90 (Ninety) days after the date of opening of Bid.
2(B)25.1	Clarifications may be requested on-line till AS PER NIT
2(B)30	The tender will be opened on following date and time: AS PER NIT.

SECTION -2 (D)

**LETTER FOR SUBMISSION OF TENDER
[To be filled in by the Bidder]**

*Note:- (1) Additional conditions appended to the tender will make the tender liable for rejection.
(2) Non-submission of EMD in proper shape and other required documents as detailed hereinafter shall make the tender liable for rejection.*

Ref. No. _____/Dated_____

To

The Executive Engineer
City Division II
Cuttack Municipal Corporation
Cuttack

Sub: Tender for the Work – **“As per NIT”**.

Ref: Identification No.**AS PER NIT**

Dear Sir,

With reference to the above, we are to inform you that in response to your above referred TCN, we have downloaded the Detailed Tender Call Notice (DTCN) Part-I & II and that after having thoroughly examined the same, we hereby tender for the work to execute the work within the stipulated time and in conformity with the relevant clauses of the DTCN along with all related statutory rules and regulations for the amounts as quoted in the accompanying BOQ.

2) I/We have studied, acquainted and satisfied ourselves with the site and its working conditions for the successful and timely completion of the work.

3) I/We are submitting herewith Bar Chart to complete the work in time.

4) Our offer is unconditional and is in conformity with the requirements of the DTCN. We understand that any additional condition put by us in the tender shall make our tender liable for rejection.

5) I/We understood that you are not bound to assign any reason in case of rejection of our tender.

6) I/We agree to keep our offer open for a minimum of **90 (Ninety)** days from the date of opening of the Bid. Further extension of validity will be our prerogative.

Should this tender be accepted, we hereby agree to abide by and fulfil all the terms and provisions of this Detailed Tender Call Notice (DTCN).

Contractor

55

Executive Engineer C.D III, CMC

Thanking you.

Yours faithfully,

Name and Signature
of the authorised signatory
along with seal and address of the farm.

SECTION-3

CONDITIONS OF CONTRACT

3.1. Decision of Executive Engineer is Final:

The party whose tender is accepted hereinafter called the contractor is to provide everything of every sort and kind (with the exceptions noted in the schedule attached) which may be necessary and requisite for the due and proper execution of the several works included in the contract according to the true intent and meaning of the drawings and specification taken together, which are to be signed by the **Executive Engineer CMC, Cuttack**, herein after called the Executive Engineer and the contractor whether the same may or may not be particularly described in the specification or shown on the drawing provided that the same are reasonably and obviously to be inferred there from and in case of any discrepancy between the drawings and the specifications the Executive Engineer is to decide which shall be followed.

3.2. Amendment of Errors during Progress of Work:

The contractor is to set out the whole of the works in conjunction with an officer to be deputed by the Executive Engineer and during the progress of the works to amend on the requisition of the Executive Engineer any errors which may arise therein and provide all the necessary labour and materials for doing. The contractor is to provide all plant labour and materials (with the exception noted in Schedule), which may be necessary and requisite for the works. All materials and workmanship are to be the best of their respective kinds. The contractor is to leave the works in all respects clean and perfect at the completion thereof.

3.3. Fair Wage Clause:

The contractor shall not employ for the purpose of this contract any person who is below the age of fourteen years, and shall pay to each labourer, for the work done by such labourer, fair wages. Fair wages means wages whether for time or piecework, prescribed by the State P.W.D. provided that where higher rates have been prescribed under the minimum wages Act, 1948, wages at such higher rates should constitute fair wages.

The Executive Engineer shall have the right to enquire into and to decide any complaint alleging that the wages paid by the contractor to any labourer for the work done by such labourer is less than the wages paid for similar work in the neighbourhood.

The Officer-in-charge of the work shall have the right to decide whether any labourer employed by the contractor is below the age of fourteen years and to refuse to allow any labourer whom he decides to be below the age of fourteen years, to be employed by the contractor.

3.4. Approved Drawings & Specification of Site with Contractors Agent:

Complete copies of the drawing and specifications signed by the Executive Engineer and the same or copies thereof are to be kept with the works in-charge of the contractor's agent which is to be constantly kept on the ground by the contractor and to whom instructions can be given by the Executive Engineer.

3.5. Work not to be Sublet:

The work should not be sublet. During execution of work **if it is found that the work/ part of the work is sublet**, the Executive Engineer may there upon by notice in writing, rescind the contract and the **security deposit of the contractor shall thereupon stand forfeited** and be absolutely at the disposal of Cuttack Municipal Corporation. In addition, the contractors shall not be entitled to recover or be paid for any work thereafter actually performed under the contract.

3.6. Deviation from Approved Drawing and Specifications:

The contractor is not to vary or deviate from the drawings or specifications or execute any extra work of any kind whatsoever unless upon the authority of the Executive Engineer to be sufficiently shown by any order in writing, by any plan or drawing expressly given and signed by him as an extra or variation or by any subsequent written approval signed by him. In case of daily labour all vouchers for the same are to be delivered to the Executive Engineer or the Officer-in-Charge at least during the week following that in which the work may have been done and no day work shall be allowed unless authorised by the Executive Engineer and no such authority shall be given if the work is capable of being measured and being paid for at an agreed rate.

3.7. Rate for Extra Work.

Any authority given by the Executive Engineer, for any alterations or additions in or to the works, is not to vitiate contract. But all additions, omissions or variations made in carrying out the works are to be measured and valued and certified by the Executive Engineer and added to or deducted from the amount of the contract as the case may be. For new items the same shall be paid at the rates, in accordance with the sanctioned schedule of rates, in force at the time, when the particular item of work was commenced. In those cases in which rates do not exist, the **Executive Engineer / City Engineer, CMC, Cuttack** will fix the rates to be paid and his decision shall be final.

3.8. Extension of Time:

If the contractor shall desire an extension of time for completion of the work on the ground of his having been come across with unavoidable hindrance in its execution or any other grounds he shall apply in writing to Executive Engineer within 30 days of the date of the hindrance on account of which he desires such extension as aforesaid and the authority shall if in his opinion (which shall be final) as reasonable ground be shown thereof authorized such extension of time if any, as may in his opinion, be necessary or proper. The authority shall at the same time inform the contractor whether the authority claims compensation for delay, in case there is any delay in execution due to non-availability of stock materials or land or rise in cost of materials and labour or any reason whatsoever beyond the control of authority, the contractor is bound to execute the work as per the terms and rates in the contract and no monetary claim on such account will be acceptable to the authority but extension of time, proportionate to the delay in execution may be granted by the authority considering the merit of the case. The competent authority reserves the right to take any expert advice of any Committee/ Secretary/ Legal Advisor while considering the application of the contractor for extension of time and can impose any condition which shall be binding on the contractor.

3.9. Works & Materials at Site to be Property of Government of Odisha.

All works and materials brought and left at site by the contractor or by his orders for the purpose of forming part of the works are to be considered to be the property of the **Cuttack Municipal Corporation** and the same are not to be removed or taken away by the contractor or any other person without the specific permission in writing of the Executive Engineer but the Cuttack Municipal Corporation will not be liable for any loss or damage which may happen to or in respect of any such work or materials either by the same being lost or stolen or injured by weather or otherwise.

3.10. Supply of Materials:

The contractor shall at his own expense provide all materials required for the work. The materials supplied by the contractor shall conform to relevant latest editions of the specification and codes of practices of the Bureau of Indian Standards or in their absence to other specifications as may be specified by the Engineer-in-charge. The contractor shall furnish necessary certificates in support of the quality of the materials as may be required by the Engineer-in-charge.

The Engineer-in-charge shall have absolute authority to test the quality of materials at any time through any reputed laboratory at the cost of contractor. The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The Executive Engineer has full power for removal from the premises of all materials which, in his opinion, are not in accordance with the specification and in case of default, the Executive Engineer is to be at liberty to sell such materials and to employ other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Executive Engineer is also to have full power to require other proper materials to be substituted and in case of default, the Executive Engineer may cause the same to be supplied and all costs which may attend such removal and substitution are to be borne by the contractor and may be recovered from the sale proceeds of such rejected materials when necessary, the balance, if any, being kept in deposit in the contractor's favour.

3.10.1 The successful bidder is to purchase materials necessary for execution of work contract from local SSI units & MS Enterprises having valid rate contract & ISI mark.

3.11. Execution with Defective Workmanship & Improper Materials.

If in the opinion of the Executive Engineer any of the works have been executed with improper materials or defective workmanship, the contractor is then required by the Executive Engineer forthwith to re-execute the same and to substitute proper materials and workmanship and in case of default of the contractor in so doing within a week, the Executive Engineer is to have full power to employ other agency to re-execute the work and the cost thereof shall be borne by the contractor.

3.12. Rectification of Defects within Guarantee Period:

Any defects, shrinkage or other faults which may appear within **12 (twelve) months** from the completion of the work arising out of defective or improper materials or workmanship are upon the direction of the Executive Engineer to be amended and made good by the contractor at his own cost unless the Executive Engineer for reasons to be recorded in writing shall decide that they ought to be paid for and in case of default, the Governor of Odisha may recover from the contractor the cost of making good the works.

3.13. Responsibility of the Contractor during Execution of Work:

From the commencement of the works to the completion of the same they are to be under the contractor's charge. The contractor is to be held responsible for and to make good all injuries, damages and repairs occasioned or rendered necessary to the same by fire or other causes and they are to hold the Governor of Odisha harmless from any claims for injuries to persons or for structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the contractor or of any one of his employees during the execution of the works.

3.14. Execution of Works in the Site by Other Workmen:

The Executive Engineer is to have full powers to send workmen upon the premises to execute fittings and other works not included in the contract for whose operations the contractor is to afford every reasonable facility during ordinary working hours provided that such operations shall be carried on in such a manner as not to impede the progress of the work included in the contract but the contractor is not to be responsible for any damage which may happen to or be occasioned by any such fittings or other works.

3.15. Compensation for Delay:

- (a) The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the written order to

commence work is given to the contractor. The work shall throughout the stipulated period of the contract, be carried on with all due diligence (time being deemed to be essence of the contract on the part of the contractor) and the contractor shall pay, as compensation, an amount equal to $\frac{1}{2}$ percent of the amount of the estimated cost, if the whole work as shown by the tender for every day that the work remains un-commenced, or un-finished after the proper dates (The work should not be considered finished until such date as the Executive Engineer shall certify as the date on which the work is finished after necessary rectification of defects as pointed out by the Executive Engineer or his authorised agents, are fully complied with by the contractor to the Executive Engineer's satisfaction). And further to ensure good progress during the execution of the work, the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month, to complete one-fourth of the whole of the work before one fourth of the whole time allowed under the contract has elapsed, one half of the work, before the half of such time has elapsed, and three fourth of work before three fourths of such time has elapsed, in the event of the contractor failing to comply with the condition he shall be liable to pay as compensation an amount equal to one-third percent on the said estimated cost of the whole work for every day that the due quantity of work remains incomplete. Provided that the entire amount of compensation to be paid under the provision of this clause shall not exceed 10% (Ten Percent) of the estimated cost of the work as shown in the tender.

- (b) If there are possibilities of exceeding this compensation amount as mentioned in clause (a) 10% of the estimated cost, or in any case in which under any clause or clauses of this contract, the contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit in the hands of CMC (whether paid in the sum or deducted by instalments) the Executive Engineer on behalf of the CMC, Cuttack, shall have power to adopt any of the following courses, as he may deem best suited to the interest of the Government.
- i) To rescind the contract (of which recession notice in writing to the contractor under the hand of the Executive Engineer shall be conclusive evidence) 20% of the value of the left over work will be realized from the contractor as penalty.
 - ii) To employ labour paid by CMC and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labour and the price of the materials (of the amount of which the cost and price certificate of the Executive Engineer shall be final and conclusive against the contractor) and crediting him with the value of the work done, in all respect in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract; the certificate of the Executive Engineer as to the value of the work done shall be final and conclusive against the contractor.
 - iii) To measure up the work of the contractor and to take such part of the work of the contract, as shall be unexecuted out of his hands and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of the amount of which excess the certificate in writing of the Executive Engineer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by Government under the contract or otherwise or from his security deposit or the proceeds of sale thereof or a sufficient part thereof.

In the event of any of the above courses being adopted by the Executive Engineer the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements, or made any advance on account of with a view to the execution of the work or the performance of the contract. And in case the contract shall be rescinded under the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work there to for actually performed under this contract, unless and

until the Executive Engineer shall have certified in writing the performance of such work and the value payable in-respect thereof and he shall only be entitled to be paid the value so Certified.

3.16. **Circumstances for Rescission of Contract:**

If the contractor shall become bankrupt or compound with or make any assignment for the benefit of his creditors or shall suspend or delay the performance of his part of the contract (except on account of cause mentioned in **Clause 3.15** or in consequence of not having proper instructions for which the contractor shall have duly applied) the Executive Engineer may give to the contractor or his assignee or trustee as the case may be notice requiring the works to be proceeded with and in case of default on the part of the contractor for a period of seven days, it shall be lawful for the Executive Engineer to rescind the contract, if necessary, and to enter upon and take possession of the work and to employ any other person to carry on and complete the same and to authorise him or them to use the plant, materials and property of the contractor upon the works and the costs and the charge incurred in any way in carrying on and completing the said works are to be paid to the Executive Engineer by the contractor or may be set off by the Executive Engineer against any money due or to become due to contractor. If the assignee or trustee of the Contractor proceeds with the work, the conditions of this contract shall be binding upon the said assignee or trustee.

3.17. **Payment Certificate.**

A Certificate of the Executive Engineer or an award of the refer hereinafter referred to as the case may be showing the final balance due or payable to the contractor is to be conclusive evidence of the works having been duly completed and that the contractor is entitled to receive payment of the final balance, but without prejudice to the liability of the contractor under the provisions of **Clause-3.11**.

3.18. The Cuttack Municipal Corporation shall make payment of work in full or part thereof those shall have been certified, subject to availability of funds

3.19. **Price Variation / Escalation Clause:** (Vide Works Deptt. Office Memorandum No.12606/W dt.24.12.2012)

Contract price shall be adjusted for increase or decrease in rates and price of Labour, Cement, Steel, Bitumen, Pipes, POL & other material component in accordance with the following principles and procedures as per formula given below:

(a) (i) **REIMBURSEMENT / RECOVERY DUE TO VARIATION IN PRICES OF MATERIALS OTHER THAN (STEEL, CEMENT, BITUMEN, PIPES & P.O.L)**

“If during the progress of the work the price of any materials (excluding the cost of steel, cement, bitumen & POL) incorporated in the work (not being materials supplied from the Engineer-in-charge’s store) in accordance with clause there of increases or decreases as a result of increase or decrease in the Average Wholesale Price Index (all commodities), and the Contractor thereupon necessarily and properly pays in respect of that materials incorporated in the work such increased or decreased price, then he shall be entitled to reimbursement or liable to refund, quarterly as the case may be, such an amount, as shall be equivalent to the plus or minus difference of 85% in between the Average Wholesale Price Index (all commodities) which is operating for the quarter under consideration and that operated for the quarter in which the bid was received (last date of receipt) as per the formula indicated below provided that the work has been carried out within the stipulated time or extension thereof as are not attributable to him. If penalty is levied for delayed completion of the work, the contractor shall not be eligible to get price escalation on the above materials on the value of works executed during the extended period.

This clause will be applicable to the contracts where original stipulated period of completion is more than 18 months.

In the situation where the period of completion is initially stipulated in the agreement as less than 18 (eighteen) months but subsequently the completion period has been validly extended on the ground that the delay in completion is not attributable to the contractor and in the result the total period including the extended period stands more than 18 (eighteen) months or more, price escalation for other materials is admissible only for the remaining period excluding 18 (eighteen) months there from.

Formula to calculate the increase or decrease in the price of material:-

Price adjustment for increase or decrease in cost of materials other than cement, steel, bitumen, pipes and POL procured by the contractor shall be paid in accordance with the following formula:

$$V_m = 0.85 \times P_m / 100 \times R \times (M_i - M_0) / M_0$$

V_m = Increase or decrease in the cost of work during the quarter under consideration due to changes in rates of materials other than cement, steel, bitumen, pipes and POL.

R = Value of work done during the quarter under consideration excluding the work executed under extra items if any at prevailing schedule of rate/ derived rates.

M_0 = The all India wholesale Price Index (all commodities) prevailed during the quarter of last date of receipt of bids (as published by the Economic Adviser to Govt. of India, Ministry of Industry and Commerce, New Delhi).

M_i = The all India wholesale price index (all commodities) for the quarter under consideration as published by Economic Adviser, Govt. of India, Ministry of Industry and Commerce, New Delhi. In respect of the justified period extended for completion of the work, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.

P_m = Percentage of material Component (other than cement, steel, bitumen, pipes and POL) of the work, as indicated in clause – (d) below.

(A) (ii) REIMBURSEMENT / RECOVERY OF DIFFERENTIAL COST DUE TO VARIATION IN PRICES OF PRINCIPAL MATERIALS (STEEL, CEMENT, BITUMEN & PIPES NOT ISSUED BY DEPARTMENT) AFTER SUBMISSION OF TENDER.

If after submission of the tender, the prices of steel, cement, bitumen and pipes (not being supplied by the Department) increases / decreases beyond the price (s) prevailing at the time of the last date for submission of tenders including extension for the work, the contractor shall be eligible to get differential cost due to such hike on the value of works executed during the stipulated period and during the extended period when the reason of delay in completion of the work is not attributable to the contractor. If penalty is levied for delayed completion of the work, the contractor shall not be eligible to get price variation on the above materials on the value of works executed during the extended period.

Reimbursement in case of differential cost due to increase in prices of cement, steel, bitumen and pipes are to be made by the Executive Engineer with prior approval of tender accepting authority subject to following conditions:

- 1) Contractors have to submit the vouchers showing procurement of different materials from authorized dealers for the said work.
- 2) Differential cost will be allowed only for the works which are progressed as per the approved work programme / revised work programme duly approved by the Engineer-in-charge.

Recovery in case of decrease in prices of cement, steel, bitumen and pipes shall be made by concerned Executive Engineer from the Contractor immediately.

The increase / decrease in prices of cement, steel, Bitumen and Pipes for reimbursement / recovery shall be determined as follows.

a) **Adjustment towards differential cost of cement**

$V_c = (C_i - C_0) / C_0 \times \text{Actual quantity of cement utilised in the work during the quarter under consideration} \times \text{base price of cement as prevailing on the last stipulated date of receipt of tender including extension, if any.}$

V_c = Differential cost of cement i.e. amount of increase or decrease in rupees to be paid or recovered

C_i = All India wholesale price index for cement for the quarter under consideration as published by Economic Adviser, Government of India, Ministry of Industry and Commerce, New Delhi.

C_0 = All India wholesale price index (as published by Economic Adviser, Government of India, Ministry of Industry and Commerce, New Delhi) for cement as prevailing on the last stipulated date of receipt of tender.

b) **Adjustment towards differential cost of Steel**

$V_s = (S_i - S_0) \times \text{Actual quantity of steel utilised in the work during the quarter under consideration}$

V_s = Differential cost of steel i.e. amount of increase or decrease in rupees to be paid or recovered

S_i = Cost of the steel as prevailed during the period under consideration as fixed by Steel Authority of India.

S_0 = Base price of steel prevailing as on the last date of submission of tender including extension, if any.

c) **Adjustment towards differential cost of Bitumen.**

$V_b = (B_i - B_0) \times \text{Actual quantity of Bitumen utilised in the work during the quarter under consideration}$

V_b = Different cost of bitumen i.e. amount of increase or decrease in rupees to be paid or recovered

B_i = Average Cost of Bitumen prevailed during the period under consideration as fixed by IOCL/ BPCL/HPCL.

B_0 = Base price of Bitumen as prevailing on the last stipulated date of receipt of tender including extension, if any.

d) **Adjustment towards differential cost of Pipes.**

$$V_p = 0.85 \times P_p / 100 \times R (P_i - P_0) / P_0$$

V_p = Different cost of Pipe i.e. amount of increase or decrease in rupees to be paid or recovered during the quarter under consideration.

P_p = Percentage of pipe component of the work as indicated in the Clause - (d)

R = Value of work done during the quarter under consideration excluding the value of work executed under extra items, if any, at prevailing schedule of rates or derived rate.

P_i = All India Wholesale Price Index for the period under consideration as published by Economic Advisor, Government of India, Ministry of Industry & Commerce, New Delhi for the type of pipe under consideration.

P_0 = All India Wholesale Price Index (as published by Economic Advisor, Government of India, Ministry of Industry & Commerce, New Delhi) as on the last stipulated date of receipt of tender including extension, if any, for the type of pipe under consideration.

(B) **REIMBURSEMENT / REFUND DUE TO STATUTORY RISE IN COST OF MINIMUM WAGES BY GOVERNMENT.**

If after submission of the tender, the wages of labour increases or decreases as a direct result of the coming into force of any fresh law, or statutory rule or order beyond the wages prevailing at the time of the last date of submission of tenders including extensions, the contractor shall be eligible to get escalation due to such hike on the value of works executed during the stipulated period and during the validly extended period when the delay in completion is not attributable to the contractor. If penalty is levied for delayed completion of the work, the contractor shall not be eligible to get escalation on labour on the value of works executed during the extended period.

The contractor shall within a reasonable time of his becoming aware of any alteration in the price of any such wages of labour, give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition together with all information relating thereto which he may be in a position to supply. Engineer-in-Charge may call books of account and other relevant documents from the contractor to satisfy himself about reasonability of increase in prices of wages and actual payment thereof. For this purpose, the labour component of the work executed during period under consideration shall be the percentage (as specified in table below) of the value of the work done during that period and the increase / decrease in labour shall be considered on the cost of minimum daily wages of any unskilled Labourer, fixed by the Government of Odisha under Minimum Wages Act.

The compensation for escalation for labour shall be worked out as per the formula given below:

$$V_1 = 0.85 \times P_1 / 100 \times R \times (L_i - L_0) / L_0$$

V_1 = Increase or decrease in the cost of work during the quarter under consideration due to changes in rates of minimum wages.

R = Value of work done during the quarter under consideration excluding the work executed under extra items if any at prevailing schedule of rate / derived rates.

L_0 = The Minimum Wages for labour as notified by State Government, as prevailing on the last stipulated date of receipt of tender including extension, if any.

L_i = The minimum wages for labour as notified by State Government & as prevailed on the last date of the quarter previous to the one under consideration. In

respect of the justified period extended, the minimum wage prevailing on the last date of quarter previous to the quarter pertaining to stipulated date of completion or the minimum wage prevailing on the last date of the quarter previous to the one under consideration, whichever is less, shall be considered.

P_1 = Percentage of labour component of the work, as indicated in the Clause (d).

(C) REIMBURSEMENT / REFUND DUE TO VARIATION IN PRICES OF P.O.L:

Similarly, if during the progress of work, the **Prices of Diesel, Petrol, Oil & Lubricants** increases or decreases as a result of the price fixed thereof by the Government of India and the contractor there upon necessarily and properly pays such increased or decreased price towards Diesel, Petrol, Oil & Lubricants used in the execution of the work, then he shall be entitled to reimbursement or liable to refund, quarterly, as the case may be such an amount as shall be equivalent to the plus or minus difference of 85% in between the price of P.O.L, which is operating for the quarter under consideration and that operated for the quarter of last date of receipt of bids as per the formula indicated below provided that the work has been carried out within the stipulated time or extension there of as are not attributable to him. If penalty is levied for delayed completion of the work, the contractor shall not be eligible to get price escalation on P.O.L on the value of works executed during the extended period.

Formula to calculate the increase or decrease in the price of P.O.L:-

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

V_f = Increase or decrease in the cost of work during the quarter under consideration due to changes in rates for POL.

P_f = Percentage of P.O.L component of the work, as indicated in Clause – (d) below.

R = Value of work done during the quarter under consideration excluding the work executed under extra items if any at prevailing schedule of rate / derived rates.

F_i = All India Wholesale Price Index for Fuel, Oil & Lubricant (High Speed Diesel) for the quarter under consideration as published by Economic Adviser, Government of India, Ministry of Industry & Commerce, New Delhi. In respect of the justified period extended, the rates prevailing at the time of stipulated date of completion or the prevailing rates of the period under consideration, whichever is less, shall be considered.

F_0 = All India Wholesale Price Index for Fuel, Oil & Lubricant (High Speed Diesel) as prevailing on the last stipulated date of receipt of tender including extension, if any.

(D) The following percentages will govern the price adjustment for the entire contract for different types of works as applicable given in the following table.

Percentage Table

Sl. No.	Category of works		% Component (cost wise)		
			Labour (P _i)	P.O.L (P _i)	Steel + Cement+ Bitumen+ other materials *
1.	R&B works (% of component)	Road works	5	5	90
		Bridge works	25	5	70
		Building works	25	-	75
2.	Irrigation works (% of component)	Structural work	20	5	75
		Earth, Canal & Embankment	25	10	65

		work			
3.	P.H. Work	Structural work	25	5	70
		Pipeline work	5	-	<u>Pipe – 70%</u> * other material - 25%
		Sewer line	10	-	<u>Pipe – 70%</u> * other material - 20%

*Note: Further break up may be worked out considering the consumption of Cement, Steel, Bitumen and Pipe in the concerned works for the period under consideration.

(E) APPLICATION OF ESCALATION CLAUSE:

- (i) The contractor shall for the purpose of availing reimbursement / refund of differential cost of steel, bitumen, cement, pipe, POL and wages, keep such books of account and other documents as are necessary to show that the amount of increase claimed or reduction available and shall allow inspection of the same by a duly authorised representative of Government and further, shall at the request of the Engineer-in-Charge, furnish documents to be verified in such a manner as the Engineer-in-Charge may require any document and information kept. The contractor shall within a reasonable time of 15 days of his becoming aware of any alteration in the price of such material, wages of labour and / or price of P.O.L give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition alongwith information relating there to which he may be in a position to supply.
- (ii) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per bills paid during the three calendar months of the said quarter. The first such payment shall be made at the end of three months after the month (excluding the month in which tender was accepted) and thereafter at three months interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion.

3.20. If at any time after the commencement of the work the Governor of Odisha shall for any reason whatsoever not require the whole thereof as specified in the tender to be carried out the Engineer-in-charge shall give notice in writing of the fact to the contractor who shall have no claim to any payment or compensation whatsoever on account of any profit or advantage, which he might have derived from execution of the work in full but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim for compensation by reason of any alterations having been made in the original specification, drawings, designs and instruction which shall involve any curtailment or increase of the work as originally contemplated.

3.21. Incentive for Early Completion:

For availing incentive clause in any project which is completed before the stipulated date of completion, subject to other stipulations it is mandatory on the part of the concerned Executive Engineer to report the actual date of completion of the project as soon as possible through fax or e-Mail so that the report is received within 7 days of such completion to the City Engineer and Municipal Commissioner Cuttack Municipal Corporation. The incentive for timely completion should be on a graduated scale of 1 (one) percent to 5 (Five) percent of the contract value. Assessment of incentives may be worked out for earlier completion of work in all respect in the following scale.

Before 30% of contract period = 5% of contract value
Before 20 to 30% of contract period = 4% of contract value

Contractor

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Executive Engineer C.D III, CMC

Before 10 to 20% of contract period	=	3% of contract value
Before 5 to 10% of contract period	=	2% of contract value
Before 5% of contract period	=	1 % of contract value

(As amended in Works Department letter No.5288/W dt.4.05.2016 to Para-3.5.5 (V) Note-III of OPWD Code. Vol.I)

3.22. **Defects Liability Period:**

The defect liability is **12 months** from the date of formal taking over of the work by the Engineer-in-charge.

3.23. **Contractor Liable for Damage done & for Imperfection for 6 (six) months after Certificate:**

If the contractor or his work people or servants shall break, deface, injure or destroy any part of a building or structure in which they may be working or any building, road, fence, enclosure or grass land cultivated ground continue to the premises on which the work or any part of it is being executed or in any damage shall happen to the work while in progress from any cause whatsoever or any imperfection become apparent in it within six months from the date of the final certificate of its completion shall have been given by the Engineer-in-charge, as aforesaid, the contractor shall make the same good at his own expenses or in default the Engineer-in-charge may cause the same to be made good by other workman and deduct the expenses of which the certificate of the Engineer-in-charge shall be final from any sums that may be then or at any time thereafter may become due to the contractor or from his security or the proceeds of sale thereof or a sufficient portion thereof and the contractor shall be liable to pay of the expenses not so recovered by the Engineer-in-charge.

3.24. **Action where No Specification is mentioned:**

In the case of any class or items of works for which there is no such specification as mentioned in file, if such work shall be carried out in accordance with the detailed standard specification of Odisha, as followed by the State PWD and in the event of there being no specifications born in the said standard specification of Odisha for such items of work, then in such case the said item of work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-charge after obtaining approval from competent authority.

3.25. **Payment on Intermediate Certificate to be regarded as Advance and Bill to be submitted Monthly:**

A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer-in-charge for all works executed in the previous month and the Engineer-in-charge and/or Assistant Engineer and/or Junior Engineer in immediate charge of the work shall take the requisite measurements for the purpose of having the same verified, and the claims for as admissible adjusted if possible before the expiry of ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge and/or his Engineering subordinates shall measure up the said work in the presence of the contractor, whose counter signature to the measurement list will be sufficient warrant, and the Engineer-in-charge and/or Assistant Engineer and/or his Engineering subordinates shall prepare a bill from such list which shall be binding on the contractor in all respects. Payment shall be made to the contractor in all respects.

The Engineer-in-charge will deduct @ 5% (five percent) of the value of each running bill prepared and submitted by the contractor, if any, on account of works done, and such sum or sums to be held in deposit as a further security for the due performance of the condition of the contract provided always that the Executive Engineer may refuse to make such monthly payments if in his opinion, the progress of the work or the conduct of the contractor is not

satisfactory or the contractor has in any other may done or neglect to do anything as to make it appear doubtful to the authority as to whether the works will be completed by the contractor in accordance with his contract, or has failed to comply with any instruction or order of Engineering personnel. All such interim payments from time to time shall be regarded as payments by way of advance against the final payment only and not as payments of work actually done and completed and shall not preclude the requirement of bad, unsound and imperfect or unskilful work to be removed and taken away and for reconstructed or re-erected, or be considered as an admission of the due performance of the contract, of any part thereof in any respect, or accrual of any claim not shall it conclude, determine or affect in any way the powers of Engineer-in-charge and/or Assistant Engineer and/or the Junior Engineer under these condition or any of them as to the final settlement of adjustment of the accounts or otherwise or in any other way vary or affect this contract. The contractor shall submit the final bill within one month of the date for completion of the work failing which the Engineer-in-charge or his authorized representatives in the presence of the contractor shall prepare the final bill. For recording final measurement of the work, the Engineer-in-charge or his authorized representative shall serve a notice upon the contractor stipulating therein the date fixed for recording such measurement. If the contractor fails to attend the recording of final measurement by the Engineer-in-charge or his authorized representative on the date as stipulated, the Engineer-in-charge may at his discretion get the measurements recorded ex-parte or fix up another date as per his own convenience. Such measurements and the total amount payable to the contractor as certified by the Engineer-in-charge shall be final and binding on all parties.

3.26. Black Listing:

A Contractor may be black listed as per amendment made to **Appendix XXXIV to OPWD Code Vol.-II on rules for black listing of Contractors vide letter No.3365 Dt.01.03.2007 of Works Department, Odisha**. As per said amendment a Contractor may be blacklisted.

- a) Misbehavior/threatening of Departmental & supervisory officers during execution of work/tendering process.
- b) Involvement in any sort of tender fixing.
- c) Constant non-achievement of milestones on insufficient and imaginary grounds and non-adherence to quality specifications despite being pointed out.
- d) Persistent and intentional violation of important conditions of contract.
- e) Security consideration of the State i.e., any action that jeopardizes the security of the State.
- f) Submission of false/ fabricated / forged documents for consideration of a tender.

3.27. Before acceptance of tender, the successful bidder will be required to submit a work programme and milestone basing on the financial achievement so as to complete the work within the stipulated time and in case of failure on the part of the agency to achieve the milestone liquidated damaged will be imposed.

(As included in Para 3.5.18 Note-VIII of OPWD Code Vol.I vide Works Department letter No.12366/W dt.18.11.2013).

SECTION-4

SPECIAL CONDITIONS OF CONTRACT

4.1. Changes in Constitution of Firm:

In the case of tender by a partnership firm, any change in the constitution of the firm shall be forth with notified by the contractor to the **Executive Engineer/ City Engineer/ Municipal Commissioner** for his information. In case of failure to notify the change in the constitution within 15 days, the Executive Engineer/ Superintending Engineer/ Engineer-in-Chief may by notice in writing, rescind the contract and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of the Governor of Odisha and the same consequence shall ensure as if the contract had been rescinded thereof and in addition the contractor shall not be entitled to recover or be paid for any work there for actually performed under the contract.

4.2. Engineer's Access to Work:

The Executive Engineer is to have at all times access to the works, which are to be entirely under his control. He may require the contractor to dismiss any person in the contractor's employee upon the works who may be incompetent or misconduct him-self and the contractor is forthwith to comply with such requirements. Other supervising officers shall have all time access to the works.

4.3. Workmen Compensation Act VIII of 1923:

The Governor of Odisha shall be entitled to recover in full from contractor any amount that the Governor of Odisha may be liable to pay under Workman's Compensation Act VIII of 1923 to any workman employed in course of execution of any part of the work covered by this contract.

4.4. Jurisdiction in the Event of Dispute:

That for the purpose of jurisdiction in the event of dispute if any, the contract should be deemed to have been entered into within the CMC area and it is agreed that neither party to this agreement will be competent to bring a suit in regard to the matters covered by this contract at any place outside Cuttack.

4.5. Lighting & Sanitary Arrangement:

Lighting & Sanitary arrangement and supply of drinking water will be made by the Contractor at his own cost for his labour camp.

4.6. Payment of TAXES:

The Contractor shall bear **Taxes** such as, Income Tax, Royalties, Labour cess, Fair Weather Charges and Tollages where necessary & **Government of Odisha** shall not entertain any claim whatsoever in this respect. Statutory deduction of **Taxes** as applicable shall be done from each running bill.

4.7. The Building & Other Construction Workers Welfare Cess Act 1996.

In accordance with the provisions under the said Act 1% (One) of the approved agreement value will be deducted from the R/A Bill at the time of making payment to the contractor and such amount shall be remitted in favour of The Odisha Building & Other Construction Workers Welfare Board.

4.8. Site Clearance:

After the work is finished or completed, surplus materials and debris are to be removed by Contractor at his own cost and preliminary works such as vats, mixing platforms, level pillars, temporary sheds and go-downs etc. are to be dismantled and all such materials removed from site. The site involved in the construction activities should be cleared and dressed properly with outward slope away from the structure. After the work is completed in all respects as per

the contract, the contractor shall vacate the site within three months from the date of completion & commissioning, by making good the damages if any.

4.9. **Works to be Carried Out:**

The work to be carried out under the contract shall include all materials, labour, tools and plants, equipment and transport which may be required in preparation of and for in the full and entire execution and completion of the works. The description given in the schedule of quantities/scope of work shall, unless otherwise stated, be held to include wastage on materials, carriage & cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

4.10. **Sufficiency of Tender:**

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the schedule of quantities (DTCN Part-II Price Bid), which rates and prices shall, except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for the proper completion and commissioning of the works.

4.11. **Rates:**

The Tenderer shall quote their offer on **'Percentage Rate' (excess or less) over the estimated cost in the Price Bid appended to the tender document** for complete work in all respects. The offer shall be inclusive of cost of all materials, labour, T&P including inclusive of all duties levies, GST of Central & State Govt. including works Contract tax the building and other construction workers welfare cess with surcharge, tollages, royalties, packing and forwarding, transportation, insurance, loading & unloading, storage, watch and ward, delivery of the materials to the site etc. and all other expenses incidental thereto for successful completion, testing & commissioning of the work.

4.12. **Transportation:**

The contractor shall be responsible for the transportation of all materials, tools and plant, equipment and machinery to the work site as may be required at site.

4.13. **Custody of the Materials:**

The contractor shall be responsible for safe custody of the materials at site and the Governor of Odisha will not be responsible for any loss or damage of the property at site.

4.14. **Construction Schedule:**

The contractor shall submit a detailed work schedule in the form of **Bar Chart** along with his tender indicating the detailed break-up of the job. This will include all operations from submission of design & drawing, procurement of materials, construction to final testing & commissioning at site to be indicated in detail with reference to the time period for each.

The construction schedule as submitted by the contractor shall be revised by the Executive Engineer and approved with necessary modification if any after acceptance of the tender. However the Engineer-in-Charge shall reserve the right to modify the sequence of execution of different items/components/sub-items of the project as and when found necessary & in such cases it will be obligatory on the part of the successful bidder to abide by such changes in construction schedule/bar chart as per direction of EIC. No claim and/or condition should either be put forth in any manner by the successful bidder or shall be acceptable to the EIC.

4.14 (a) **Progress reports – submission by the contractor**

- (1) The contractor shall submit monthly progress report of the work in a computerised form. The progress report shall contain the following, apart from whatever else may be required as specified:

- (i) Project information, giving the broad features of the contract.
- (ii) Introduction, giving a brief scope of the work under the contract, and the broad structural or other details.
- (iii) Construction schedule of the various components of the work through a bar chart for the next three quarters (or as may be specified), showing the milestones, targeted tasks and upto date progress.
- (iv) Progress chart of the various components of the work that are planned and achieved, for the month as well as cumulative upto the month, with reasons for deviations, if any, in a tabular format.
- (v) Plant and machinery statement, indicating those deployed in the work, and their working status.
- (vi) Man-power statement, indicating individually the names of all the staff deployed in the work, along with their designations.
- (vii) Financial statement, indicating the broad details of all the running account payments received upto date, such as gross value of work done, advances taken, recoveries affected, amounts withheld, net payments, details of cheque payments received, etc.
- (viii) A statement showing the extra and substituted items submitted by the contractor, and the payments received against them, items pending for sanction /decision by the Department, broad details of the bank guarantees, indicating clearly their validity periods, broad details of the insurance policies taken by the contractor, if any, the advances received and adjusted.
- (ix) Progress photographs, in colour, of the various items/ components of the work done upto date, to indicate visually the actual progress of the work.
- (x) Quality assurance and quality control tests conducted during the month, with the results thereof.
- (2) The progress report submitted by the contractor shall be checked and certified by the Junior Engineer and the Assistant Engineer, and has to be reviewed by the Executive Engineer and the Superintending Engineer, over their dated signatures.
- (3) Work of unique importance and character irrespective of the value of the work, should have videography undertaken at various stages of construction right from the day of start of work to date of completion / occupation, covering all major events, inspections, visits by dignitaries, etc.

4.15. **Initial Security Deposit/ Cess:**

The tenderer whose tender is selected for acceptance shall have to deposit **2% (two percent)** of the accepted tender amount as **Initial Security Deposit (ISD)** within **7 (seven) days** of receipt of Letter of Acceptance (LoA) and sign the agreement in the prescribed form within **10 (ten) days** of receipt of Letter of Acceptance after depositing the ISD. The ISD shall be deposited in shape of NSC / POTD / Post Office Savings Bank Account / KVP/ Deposit Receipt in Schedule Bank duly pledged in favour of the **EXECUTIVE ENGINEER, City Division-III, CMC, Cuttack**. No tender shall be accepted unless required amount of security money is deposited.

In addition to the **ISD, 5%** of the bill amount shall be deducted from each bill towards the security deposit. The initial security deposit after acceptance of tender with the subsequent deduction from the contractor's bill shall form part of the security deposit equivalent to 7% of the contract value for the due fulfilment of the contract.

The security deposit of the contractor shall be refunded only 12 (twelve) months after the date of completion of the work provided the final bill has been paid and defects if any rectified.

If however there is inevitable delay in payment of final bill, the earnest money deposit and initial security deposit forming part of the security deposit may be refunded on orders of competent authority.

ii) Cess @ 1% will be deducted from the bill of the contractor.

4.16. **Monitoring of the Project:**

Time is the essence of the contract. The execution of the project shall be closely monitored to ensure that quality; cost & time of the project are not compromised in any manner.

The contractor shall submit monthly progress reports in a format as may be prescribed by the Engineer-in-charge. The monthly progress report shall be evaluated by the Executive Engineer vis-à-vis the approved **Bar chart & PERT Chart** and any deficiency observed thereto shall be communicated to the contractor. The contractor shall have to make up the deficiencies within the specific time period communicated to him by the Executive Engineer failing which the contractor shall be liable for action as per **Clause -4.26**

In addition, the contractor shall submit monthly day-wise work program one month in advance to Executive Engineer for approval under intimation to the **City Engineer, CMC&Commissioner, CMC** to ensure speedy implementation of the work and effective monitoring at all levels. Failing to do so shall also invite action under **Clause-4.26**.

4.17. **Site Order Book:**

A site Order Book shall be issued to the contractor by the Engineer-in-charge or his representative. The contractor shall keep this Book always at site and any special order or instruction to be issued to the contractor shall be recorded in this Book by the Engineer-in-charge or his representative. The contractor shall sign all orders and instructions as token of his knowledge about the same. The site Order Book shall be the property of the department but will remain during the period of the progress of the work with the contractor. The safe custody of the site Order Book during this period shall be the responsibility of the contractor. After completion of the work, the Book shall be returned back by the contractor to the Engineer-in-charge, which will be enclosed in the final bill.

4.18. **Guarantee:**

Defect liability period is **12 (twelve) months** from the date of final acceptance of the work conforming to provisions in scope of work. During this period, the contractor shall replace the defective materials if any or rectify the defects if any at his own cost as pointed out by the Engineer-in-charge to the satisfaction of the later.

4.19. **Land:**

The Department may provide land if available for construction of site office to the contractor on payment of usual rent.

4.20. **Unilateral Stoppage of Work:**

Unilateral stoppage of work by the contractor without prior written permission of the Engineer-in-charge shall be considered as breach of contract and the Cuttack Municipal Corporation reserves the right to take such actions as it may be deemed fit.

4.21. **Resident Engineer:**

The contractor shall engage for this work competent, qualified and authorised resident Engineers and Assistants to the satisfaction of the Engineer-in-charge. The Resident Engineer shall represent the contractor in his absence in receiving directions from officers of the Department, which will be binding on the contractor.

4.22. **Force Majeure:**

Neither the contractor nor the Executive Engineer shall be considered in default in delayed performance of its obligation if such performance is prevented or delayed because of work to hostilities, revolution, civil commotion, epidemic, accident, fire, cyclone, flood, earthquake or because of any law and order proclamation, regulations or ordinance of the Government thereof or because of any act of God or for any cause beyond reasonable control of the party affected. Should one or both the parties be prevented from fulfilling their contractual obligations a state of force majeure lasting continuously for a period of 6 months, the two

parties shall consult each other regarding the future execution of the contract for mutual settlement.

4.23. **Damages to Persons and Property:**

The contractor shall take every precaution not to damage or injure adjoining or other property of any persons. He shall indemnify and keep indemnified the employee against all claims for injuries or damages to any person or any such property (including surface or land or crops in site) which may arise out of or in consequence of any negligence or default on the representatives and against all claim, demands proceedings damages, costs, charges and expenses whatsoever in respect of or in relation thereto. The Department does not take any responsibility on this account.

4.24. **Attention to Urgent Works:**

If any urgent work in the opinion of Engineer-in-charge becomes necessary to be executed and the contractor is unable and unwilling at once to carry out, the Engineer-in-charge may by his own or through other agency carry it out, as he may consider necessary. All expenses incurred on it shall be recoverable from the contractor or be adjusted against any sum payable to him.

4.25. **Safety Devices:**

- i) **Scaffolding:** Suitable scaffolding shall be provided for workmen for all works that can not be safely done from the ground or solid construction except such short period of work as can be done safely from the ladders. When a ladder is used an extra labour shall be engaged for holding the ladder and if the ladder is used in carrying the materials, suitable foot holds and handholds shall be provided on the ladder.
The Engineer-in-charge will have the right to inspect the scaffolding and centring etc. for the work and can reject partly or fully such structure if found defective in his opinion.
- ii) **Working Platforms:** Working platforms, gangways and stairways shall be constructed such that they do not sag unduly or unequally. If the height of the platforms or gangway or stairway is more than 3.25 meters above the ground or floor level, it shall be closely guarded, have adequate width and suitably fenced.
- iii) **Safe means of access:** Safe means of access shall be provided to all working platform and other working places.
- iv) **Precaution against Electrical Equipment:** Adequate precaution shall be taken to prevent danger from electrical equipment. Hand lamps shall be provided with Mesh guard, wherever required.
- v) **Preventing Public from Accident:** No materials on any of the sites shall be so stacked or placed as to cause danger or inconvenience to any person or public. The contractor shall provide all necessary fencing and light to protect public from accident and shall be bound to bear expenses of defence or any suit action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precaution and to pay any damages and cost which may be awarded in any such suit action or proceedings to any such person or which may with the consent of the contractor, be paid to compromise any claim by any such person. The contractor not to come cause blockage of traffic /disruption of the traffic.
- vi) **Demolition:** Before any demolition work is commenced and also during process of work:
 - a) all roads and open areas adjacent to the work site shall either be closed or suitably protected,
 - b) no electric cable or apparatus which is liable to be a source of danger shall remain electrically charged,
 - c) all practical steps shall be taken to prevent danger to persons employed from the risk of fire, explosion or flooding,
 - d) no floor roof or other parts of the building shall be so over loaded with debris or materials as may render it unsafe.
- vii) **Personal safety equipment:** All personal safety equipment shall be made adequately available by the contractor for use of persons employed at the site of work and

maintained in a condition suitable for immediate use. The contractor shall take adequate steps to ensure proper use of the equipment by persons concerned.

- viii) **Precaution against fire:** Suitable fire extinguishers, water and sand buckets shall be provided at the work site to tackle situations of fire.

4.26. Rescission of Contract:

Subject to other provisions contained in this clause the Executive Engineer of the Department may without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, recommend the accepting authority to rescind the contract in any of the following cases:

- i) If the **contractor** having been given by the Executive Engineer a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workmen like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- ii) If the contractor being a company shall pass a resolution on the court shall make an order that the company shall be wound up or if a receiver or a **manager** on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle to court to make a winding up order.
- iii) If the contractor has, without reasonable cause, suspended the progress of the work with due diligence so that in the opinion of the Executive Engineer (which shall be final & binding) he will be unable to secure completion of the work by the date of completion and continues to do so after a notice in writing of seven days from the Executive Engineer.
- iv) If the contractor fails to comply with the provisions of **Clause-4.15** & other relevant clauses mentioned elsewhere in this DTCN.
- v) If the contractor fails to complete the work within the stipulated date or items of the work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Executive Engineer.

When the contractor has made himself liable for action under any of the cases aforesaid, the **accepting authority shall have the powers to rescind the contract** (of which rescission notice in writing to the contractor under the hand of Executive Engineer shall be conclusive evidence), **20% of the value of the left over work** will be realized from the contractor as Penalty

- 4.26.1. In case of rescission of contract as per **Clause-4.26** the contractor shall have no claim to compensation for any loss sustained by him by regions of having purchased or procured any materials or entered any engagement on account of or with a view to execute the work / performance of the contractor.

4.27(a) Conditions for Reimbursement of Levy/Taxes if Levied after Receipt of Tenders:

- i) All tendered rates shall be inclusive of all taxes and levies payable under respect statutes. However, pursuant to the Constitution (46th Amendment) Act, 1982, if any further tax or levy is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes/levies the contractor shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of the **Engineer-In-Charge (EIC)** (whose decision shall be final and binding on the contractor) attributable to delay in execution of work within the control of the contractor.
- ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorised representative of the Department and/ or the Engineer-in-Charge and further shall furnish such other information/ document as the Engineer-in-Charge may require from time to time.

- iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy, pursuant to the Constitution (Forty Sixth Amendment) Act, 1982, give a written notice thereof to the Engineer-in-Charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

4.27(b) Other statutory Taxes such as I.T., etc, will be deducted at sources from the bills of the contractor and deposited with concerned authority.

4.27(c) Royalty at the prevailing rate on minerals will be deducted from the bills of the contractor and deposited with concerned authority.

4.28 **Fair Wages Clause:**

- (a) The contractor shall not employ for the purpose of this contract any person who is below the age of fourteen years and shall pay to each labourer for work done by such labourers fair wages.

Explanation–“**Fair Wage**” means wages, whether for time or piece work prescribed by the State Public Works Department provided that where higher rates have been prescribed under the minimum wages Act 1948 wages at such higher rates should constitute fair wages.

The Executive Engineer shall have the right to enquire into and decide any complaint alleging that the wages paid by the contractor to any labourer for the work done by such labourer is less than the wages as per sub-paragraph-I above.

- (b) The contractor shall, notwithstanding the provisions of any contract to contrary, cause to be paid a fair wage to labourers indirectly engaged on the work including any labour engaged by his sub-contractors in connection with the said work, as if, the labourers had been immediately employed by him.
- (c) In respect of all labour directly or indirectly employed in the works for the performance of the contractor’s part of this agreement, the contractor shall comply with or cause to be complied with all regulations made by Government in regard to payment of wages, wage period deductions from wages, recovery of wages not paid and deductions unauthorisedly made, maintenance of wage register, wage cards, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of a like nature.
- (d) The Executive Engineer or Sub-Divisional Officer concerned shall have the right to deduct, from the money due to the contractor, any such required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of the workers non-payment of wages or of deduction made from his or their wages, which are not justified by their terms of the contract or non-observance of the regulations. Money so deducted should be transferred to the workers concerned.
- (e) Vis-à-vis, the Government of Odisha, the contractor shall be primarily liable for all payments to be made under and for the observance of the regulations aforesaid without prejudice to his right to claim indemnity from his sub-contractor.
- (f) The regulations aforesaid shall be deemed to be a part of this contract and any breach thereof shall be breach of this contract.

Odisha PWD / Electricity Department Contractor’s Labour Regulations

4.28.1. Short title – These regulations may be called “**The Odisha Public Works Department / Electricity Department Contractor’s Regulations**”.

4.28.2. Definitions – In these Regulations, unless otherwise expressed or indicated the following words and expressions shall have the meaning here by assigned to them respectively, that is to say -

- i) **“Labour”** means a worker employed by a contractor of the Odisha Public Works Department / Electricity Department directly or indirectly through a sub-contractor or other person, or by an agent on his behalf.
- ii) **“Fair Wages”** means wages whether for time or piece work prescribed by the State Public Works Department provided that where higher rates have been prescribed under the minimum wages Act, 1948 wages at such higher rates should constitute fair wages.
- iii) **“Contractor”** shall include every person whether a sub-contractor or headman or agent employing labour on the work taken on contract.
- iv) **“Wages”** shall have the same meaning as defined in the payment of Wages Act and include time and piece rate wages, if any.

4.28.3. **Display of Notices regarding Wages, etc.:**

The contractor shall:-

- a) Before he commences his work on contract display and correctly maintain and continue to display and correctly maintain, in a clean and legible condition, in conspicuous places on the work, notices in English and in the local Indian language spoken by the majority of the workers, giving the rate of wage prescribed by the State Public Works Department / Electricity Department for the district in which the work is done.
- b) Send a copy of such notices to the Engineer-in-charge of the work.

4.28.4. **Payment of wages:**

- (1) Wages due to every worker shall be paid to him direct.
- (2) All wages shall be paid in current coin or currency or in both

4.28.5. **Fixation of wage period:**

- 1) The contractor shall fix the wage period in respect of which the wages be payable.
- 2) No wage period shall exceed one month.
- 3) Wages of every workman employed on the contract shall be paid before the expiry of ten days, after the last day of the wage period in respect of which the wages are payable.
- 4) When the employment of any worker is terminated by or on behalf of the contractor, the wages earned by him shall be paid before the expiry of the day succeeding the one on which his employment is terminated.
- 5) All payments of wages shall be made on a working day.

4.28.6. **Wage book and wages cards, etc.:**

- (1) The contractor shall maintain a wage book of each worker in such form as may be convenient, but the same shall include the following particulars-
 - (a) Rate of daily or monthly wages.
 - (b) Nature of work on which employed
 - (c) Total number of days worked during each wage period
 - (d) Total amount payable for the work during each wage period.
 - (e) All deductions made from the wages with an indication in each case of the ground for which the deduction is made.
 - (f) Wage actually paid for each wage period.
- (2) The contractor shall also maintain a wage card for each worker employed on the work.

- (3) The Executive Engineer may grant an exemption from the maintenance of wage bond, wage cards to a contractor who, in his opinion – may not directly or indirectly employ more than 100 persons on the work.

4.28.7 Fines and deduction which may be made from wages:

- (i) The wages of a worker shall be paid to him without and deduction of any kind except the following -
 - (a) Fines
 - (b) Deductions for absence from duty, i.e., from the place of places whereby the terms of his employment he is required to work. The amount of deductions shall be in proportion to the period for which he was absent.
 - (c) Deductions for damage to or loss of good expressly entrusted to the employed person for custody or for loss of money for which he is required to account where such damage or loss is directly attributable to his neglect or default.
 - (d) Any other deductions which the Odisha Government may from time to time allow.
- (ii) No fines shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deduction.
- (iii) The total amount of fines which may be imposed in any one wage period on a works shall not exceed an amount equal to five paise in a rupee of the wages payable to him in respect of that wage period.
- (iv) No fine imposed on any worker shall be recovered from him by instalments, or after the expiry of 60 days from the date on which it was imposed.

4.28.8 Register of fines, etc.:

- (i) The contractor shall maintain a register of fines and of all deduction for damage or loss. Such register shall mention the reason for which fine was imposed or deduction for damage or loss was made.
- (ii) The contractor shall maintain a list in English and in the local Indian language, clearly defining acts and omissions for which penalty of fine can be imposed. It shall display such list and maintain it in a clean and legible condition in conspicuous places on the work.

4.28.9. Preservation of register:

The wage register, the wage cards and the register of fines, deduction required to be maintained under the regulations shall be **preserved for 12 (twelve) months** after day of the last entry made in them.

4.28.10. Powers of Labour Welfare Officers to make investigation or enquiry:

The Labour Welfare Officers or any other persons authorized by the Government of Odisha on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of the fair wage clauses and the provisions of these regulations. He shall investigate into any complaint regarding default made by the contractor, sub-contractor in regard to such provisions.

4.28.11. Report of Labour Welfare Officers:

The Labour Welfare Officer or others authorized as aforesaid shall submit a report of the results of his investigation or enquiry to the Executive Engineer concerned, indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor bill be made and the wages and other dues be paid to the labourers concerned.

4.28.12. Appeal against the decision of Labour Welfare Officer:

Any persons aggrieved by the decision and recommendation of the Labour Welfare Officer or other person so authorized may appeal against such decision to the Labour Commissioner within 30 days from the date of decision forwarding simultaneously a copy of his appeal to the Executive Engineer concerned but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.

4.28.13. **Inspection of register:**

The contractor shall also allow inspection of the wage book and wage cards to any of his workers or to his agent at a convenient time and place after due notice is received, or to the Labour Commissioner or any other person authorized by the Government of Odisha on his behalf.

4.28.14. **Submission of return:**

The contractor shall submit periodical returns as may be specified from time to time.

4.28.15. **Amendments:**

The Government of Odisha may from time to time, add to or amend these regulations and on any question as to the application, interpretation of effect of these regulations, the decision of the Labour Commissioner or any other person authorized by the Government of Odisha in that behalf shall be final.

The terms and conditions of the agreement have been read by Me/Us and I/We certify that I/We clearly understand them and agree to abide by them.

ADDITIONAL SPECIAL CONDITIONS OF THE DTCN/CONTRACT

1. The stipulated date of commencement of the work shall be the date on which the agreement is signed/executed/drawn between CMC & the contractor.
2. The contractor shall not be entitled to any compensation on account of delay in locating the sites by CMC or due to any natural calamity or labour unrest or non-availability of labour, theft of materials or any kind of force majeure situation, etc.
3. If the contractor could not achieve proportionate progress with respect to time, then CMC shall have the right to take any action deemed fit against the contractor as per the agreement and/or OPWD Code including rescind of contract, levy of penalty, etc. In case of non-cooperation/deliberate delay either to start or expedite and complete the work/utterly or written defiance to achieve required quality and progress/unnecessary or uncalled for correspondence(s) embedded with condition(s)/instruction(s) not commensurate with the explicit condition(s) of the agreement by the contractor for the work, CMC shall not only have the right to rescind the contract but also to execute either the whole or balance portion of the work through any other mode, as deemed fit by CMC and the excess expenditure incurred, if any, for execution of the same, shall be recovered from the contractor resorting to the procedures deemed fit by CMC. **The employer (CMC) also reserves the right whether to respond or not to the correspondence(s)/queries of the contractor or any other**

organisation/entity regarding this work and/or the conditions/instructions associated with this work.

4. The decision of Commissioner/Mayor/Administrator, CMC regarding the reasons for delay, if any, in completion of the work shall be final and binding on the contractor. If the Commissioner/Mayor/Administrator, CMC is not satisfied regarding the genuineness of delay for progress and/or completion of the work, then he/she may impose penalty upon the contractor @1/2% per day of delay of the value of work lying unfinished subject to a maximum 10% of the agreement amount.
5. CMC reserves the right, to make such increase or decrease in the quantities and/or items of the work which are considered necessary during the course of execution. Such increase or decrease shall be at the discretion of CMC and in no case, shall invalidate the contract except the corresponding financial involvement admissible by/acceptable to CMC.
6. Extra item and/or quantities of the work, if found essential for the project, shall be covered under supplementary agreement to be drawn between the contractor & CMC. The rate(s) for such item(s) and quantity(s) shall be the prevailing Govt. of Odisha Schedule of Rates (SOR) of PHEO & Works Deptt. or local market rate(s), as applicable for the items/components not covered under SOR subject to approval of Commissioner, CMC.
7. The contractor shall put his/her/their signature in the measurement book(s) and bill(s) (before payment) as a token of acceptance of the quantities, specifications, rates and amounts of the bill(s) and no further claim in this regard shall be entertained by CMC.
8. (a) In addition to the Performance Security/Security Deposit (SD) to be retained/withheld @5% of each Running Account Bill vide Sl.10 of Section-III of DTCN Part-I, Maintenance Security Deposit (MSD) shall be retained/withheld by CMC @5% of each Running Account Bill.
(b) This MSD shall be retained as an indicative safeguard towards the interest of CMC to ensure that the required maintenance works of the Projects in respect of all Civil works, plantation & arboriculture, land scaping, play equipments, painting, defect rectification works, etc. are executed in time by the contractor during the defect liability period of 365 days after the date of completion of original work as per agreement (including the additional/replaced/curtailed items/quantities). The timeline(s) for the above nature of work(s) to be executed by the contractor shall be communicated by CMC through telephone/physically/e-mail/letter by post and contractor has to abide by the same failing which it will be treated as a breach of contract and hence, CMC will be a liberty to take any action deemed fit against the contractor including levy of economic penalty and/or other punitive measures such as; debar from participating in CMC tenders, blocking of DSC of the contractor, etc.

(c) However, notwithstanding of the clause (b) above and upon successful completion of the aforesaid works required during the defect liability period by the contractor as per direction of CMC, the MSD shall be released by CMC to the contractor within two months of expiry of the defect liability period.

(d) The actual date of completion of the original work vide (b) above covering all the three parks and the corresponding date of commencement and completion of defect liability period shall be noted/declared/notified/intimated by CMC from time to time and the same shall be binding upon the contractor.

(e) The APS (if any) submitted by the contractor shall be refunded within two months from the date of completion of the original work.

(f) The EMD, ISD & Security Deposit(s) (SD) retained by CMC from the contractor's bill shall be considered for release subject to fulfilment of all the conditions of the DTCN/Agreement and after checking/scrutiny of the files and expenditures by LF Audit and shall be subject to deductions/recovery of any amount(s) pointed out by Audit.

(g) No interest will be paid by CMC on the EMD furnished by any bidder, on the EMD and ISD of the contractor and on the amount(s) to be retained/withheld/deducted by CMC from the bill amount(s) of the contractor or upon delay in release of payment(s) or release of deposit(s) of the bidder(s)/contractor.

9. **Contractors having registration for civil works only should enter into a joint venture agreement with eligible registered contractors for Internal & External Electrification works on production of definite proof from the appropriate authority.**

No claim in this regard in any manner by the contractor or any organisation/entity shall be entertained/accepted by CMC.

**AGREEMENT TO BE EXECUTED FOR CONSTRUCTION OF PAVER ROADS AS PER H & U.D
DEPT. LETTER NO. 16907 DT 04-08-2023
MEMORANDUM**

(To be filled in during signing of Agreement)

Sl.No	Name of Work	:	
1	Estimated Cost	:	Rs.
2	Name and Address of the Contractor/Selected Bidder	:	
3	Accepted Tender Value/ Agreement Value	:	Rs.....
4	Earnest Money Deposit (EMD) vide of DTCN Section-	:	Rs.....
5	Initial Security Deposit (ISD) vide of DTCN Section-	:	Rs.....
6	APS Deposit vide St. 9 of DTCN Section	:	Rs.....
7	Percentage to be Deducted & Withheld from each Payment In- Voice after Correction, if any, by Cuttack Municipal Corporation (CMC) for Repair/ Replacement/ Maintenance of the Work during Defect Liability Period of 1095 Days (3Years) from the Date of Completion of the Original work vide contract Agreement form in this Section	:	@ 8 (eight) % + 2(two)% ISD
8	Time allotted for completion of the work (from the date of written order to commence)	:	() Months
9	Date of Written Order to Commence/Stipulated Date Of Commencement		
10	Stipulated Date of Completion		

This contract made on Dt..... between Cuttack Municipal Corporation (CMC), hereinafter called "the employer" and

..... (name and address of the selected bidder, hereinafter called "the contractor").

Whereas, the employer is desirous that the contractor shall execute;

“.....)”
(Cuttack Municipal Corporation) vide Bid Reference No. Cuttack Municipal Corporation (CMC)/-----/2023-24 Dt ----- (hereinafter called “the work “, and the employer has accepted the bid of the contractor for execution and completion of such works and rectification of defects, if any at an accepted tender / contract price of Rs.....(Rupees..... Only. Now, therefore, it is hereby agreed upon by Cuttack Municipal Corporation (CMC) and the contractor as follows:

1. In this contract, words and expressions shall have the same meanings as are respectively assigned to those in this DTCN and the contract form as a whole. The DTCN and agreement shall be deemed to form and be read and construed as part of this contract with a view to maintaining the sanctity of this contract for successful execution and completion of the work

unless otherwise clarified/redefined at a later stage during the contract remains in force including the defect liability period.

2. In consideration of the payments to be made by the employer, the contractor hereby covenants with the employer to execute and complete the work and rectify the defects therein, if any, in conformity with the provisions of this contract.

3. The employer hereby covenants to pay the contractor in consideration of the execution and completion of the work and for rectification of defects, if any, wherein the contract price or such other sum, as may become payable under the provisions of the contract and in the manner prescribed under this contract.

4. The following documents shall be deemed to form, read and construed in conjunction with other portions/clauses/conditions of this contract and DTCN.

i. DTCN invited for the work including the Short Notice

ii. Contractor's bid and negotiation correspondences, if any

iii. Letter of Acceptance/Letter of Intent for the work (LOA/LOT)

iv. Notice to proceed with the work (Work Order) to be issued by Cuttack Municipal Corporation (CMC) and subsequent instructions of Cuttack Municipal Corporation (CMC) to the selected bidder subject to confirmation of the same, if required, by Cuttack Municipal Corporation (CMC) through written notice(s) to the selected bidder.

v. Contract/Agreement form at Schedule-'A' of this Section for Items, Quantities, Rates and Amounts of the work to be duly signed by employer (ULB) and the contractor.

vi. Instruction/intimation of Cuttack Municipal Corporation (CMC) for execution of extra work(s)/item(s)/quantity(s) found essential for the work and the corresponding rate(s) not covered in the agreement/DTCN Part-11 (Financial Bid) and also for curtailment/exclusion of any item(s) of the Financial Bid from execution.

vii. Drawing, design, work programme or part thereof submitted by the contractor and duly approved by Cuttack Municipal Corporation (CMC) with or without modification.

viii. Letter/intimation/instruction (including physically and over telephone) of Cuttack Municipal Corporation (CMC) for repair/replacement/defect rectification, if any, with respect to modified quality(s)/specification(s) for such repair/replacement/defect rectification work and allowed time(s) to accomplish the same either during execution of the work or during the defect liability period of 1095 days from the officially declared/notified/noted date of completion of the whole work including additional/curtailed items/quantities of the work as per direction of Cuttack Municipal Corporation (CMC). Cuttack Municipal Corporation (CMC) reserves the right to declare/note the date of completion of the original work and date of expiry of defect liability period which will be binding upon the contractor.

In witness whereof, the aforesaid two parties have entered into this contract on the date mentioned above.

Binding signature of employer signed by Executive Engineer for and on behalf of Commissioner, Cuttack Municipal Corporation - **Employer**)

Binding signature of contractor signed by.....
(Authorized signatory in case of firm/company with applicable authorization letter/declaration attached to this contract)

In the presence of

(Witnesses)

1. Name:

Address:

Tel.No:

Signature

2. Name:

3. Address:

4. Tel.No:
Signature

Signature of the Contractor
(Authorized Signatory with Seal)

Signature of Employer
(Authorized Signatory with Seal.)

Schedule-A
(Cuttack Municipal Corporation)

[c] Contract Agreement form for items, Quantities, Rate and Amounts of the work
Form No. W. III
(Rule 341)

Name of the Work:

Name of the Contractor:

I/We do hereby agree to execute the under mentioned descriptions of Items of the work in accordance with the conditions mentioned in this Agreement and in consideration of payment to be made by Cuttack Municipal Corporation (CMC) at the rate(s) specified in the following schedule for the quantity of work to be executed. Payment(s) for the item(s)/quantitie(s) of the work not mentioned here-in-below, but found required for the work, and when executed/completed as per direction of Cuttack Municipal Corporation (CMC), shall be governed by DTCN. All the payments pertaining to the work shall be subject to successful (acceptable to Cuttack Municipal Corporation (CMC)) carrying out of the duties and responsibilities by the contractor till the expiry of defect liability period as declared/noted by Cuttack Municipal Corporation (CMC). Failure to abide by this condition shall be treated as a breach of contract and under such circumstance(s), Cuttack Municipal Corporation (CMC) shall have the right to take any action against the contractor as deemed fit including economic penalty and/or other punitive measures.

SI. No.	Description of the Items	Quantity	Rate	Unit	Amount

Note:

- a. The work is to be executed with due diligence and in Integrated/synchronous manner. The materials to be used by the contractor are to be the best of quality, and in all cases, shall be subject to approval of Cuttack Municipal Corporation (CMC). Decision of Cuttack Municipal Corporation (CMC) regarding progress achieved and quality of the work done by the contractor shall be final.

- b. The executed quantity of various items of the work shall be measured by Cuttack Municipal Corporation in appropriate / applicable manner and at different stage. But stage/sequence of payment(s) shall be the prerogative of Cuttack Municipal Corporation (CMC). Running account bill(s) shall not be preferred ordinarily. However, under exceptional circumstances or upon achievement of desired work progress by the contractor, Cuttack Municipal Corporation (CMC) may consider running account bill payment on written request of the contractor. The quantum of running account bill payment, unlike final bill payment, would in any case, shall be less than the corresponding proportionate value of work done and, shall be subject to the statutory deductions such as, income tax, service tax, labour cess, royalty and any other charges as applicable and retentions such as for EOT, SD, etc.
- c. Cuttack Municipal Corporation (CMC) may put an end to this agreement at any time in case of bad/defective and/or it may remove/replace the defective work and while doing so, the actual cost involved, if any, shall be realized from the contractor. No claim in this regard by the contractor shall be entertained.
- d. The conditions mentioned above are a few and indicative only. In addition to these, the contract shall also be governed by the details laid down in the documents listed at Sl. 1 to 4 of the above draft agreement form.

Signature of the Contractor

(Authorized Signatory with Seal)

Signature of Employer

(Authorized Signatory with Seal)

GENERAL CONDITIONS OF THE DTCN/CONTRACT

1. **Goods and Service Tax (GST) Clearance Certificate:** Tenderers are required to submit self attested copies of valid GST Clearance Certificates along with their offers, failing which their offers will not be considered for evaluation. Failure to comply this instruction within the stipulated period shall render his/her/their tender incomplete and shall be rejected with other punitive action against the said defaulter bidder as deemed fit by Cuttack Municipal Corporation (CMC).
2. **Incomplete Tender(s) and Seeking Clarification(s):** Tenders received in incomplete shape or found incomplete during evaluation of the bids, are liable for rejection. However, during evaluation if felt necessary by Cuttack Municipal Corporation (CMC) that, further clarification(s) is/are required on any document(s) submitted by any bidder(s), then Cuttack Municipal Corporation (CMC) may, at its sole discretion, resort to any procedure(s) deemed fit and by assigning reasonable time(s), as Cuttack Municipal Corporation (CMC) may decide just & proper for completion of the procedure(s). The result(s) of this /these time bound pursuit(s) shall have bearing(s) upon further evaluation/finalisation of the corresponding tender(s) of the bidder(s) or on the tender for the work.
3. **No Claim for Bidding /Cancellation of Tender, etc:** No claim shall be entertained towards any expenses made by any bidder for submission of the tender in case of cancellation/rejection/acceptance/withdrawal of the tender.
4. **Understanding the DTCN Before Bidding:** The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the work and of the rates and prices quoted in the financial bid (DTCN Part-II), which rates and prices shall, except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for the proper completion and commissioning of the works.

The tender amount accepted by Cuttack Municipal Corporation (CMC) with or without negotiation, as the case may be, shall remain firm until completion of the work. The tender(s) containing extraneous condition(s) are liable for rejection.

5. **Drawl of Agreement:** If L 1 bidder does not turn up for agreement after finalization of the tender, then he shall be debarred from participation in bidding at least for three years in Cuttack Municipal Corporation (CMC) and action will be taken to blacklist the contractor. In that case, the L2 bidder, if fulfilling, other required criteria, would be called for drawing agreement for execution of the work subject to the condition that L2 bidder negotiates his/her/their rate and terms and conditions at par with the rate quoted by the L1 bidder, otherwise the tender will be cancelled.

6. **Work Programme:** The selected bidder shall submit construction schedule during signing of the agreement. The same shall be approved with necessary modification, if any, by Cuttack Municipal Corporation (CMC). However, Cuttack Municipal Corporation (CMC) shall reserve the right to modify the sequence of execution of different items/components/sub-items of the project as and when found necessary & in such cases it will be obligatory on the part of the selected bidder to abide by such changes in construction schedule/bar chart as per direction of Cuttack Municipal Corporation (CMC). No claim and/or condition should either be put forth in any manner by the selected bidder or shall be acceptable to the Cuttack Municipal Corporation (CMC)

7. **Urgent Work:** Taking into consideration of the urgency of the work in the opinion of Cuttack Municipal Corporation, if the Executant is unable and unwilling to carry out the work, the Engineer-in-Charge may execute the work through MSG following the instruction given vide HUD-FUND-SCH-0003-2023 Letter no-15616/Dated 05.08.2023. The ISD to be forfeited and the Contractor will be blacklisted.

8. **Change(s) in Name and Constitution of the Contractor:** Any change(s) in the name/constitution of the contractor, shall be forthwith notified by the contractor to Cuttack Municipal Corporation (CMC) for information. In case of failure to notify the change(s) within 15 days, Cuttack Municipal Corporation (CMC) may, by notice in writing, rescind the contract and the security deposit of the contractor shall, thereupon, stand forfeited and be absolutely at the disposal of Cuttack Municipal Corporation (CMC) and, the same consequences shall be ensured as if the contract had been rescinded thereof and in addition the contractor shall not be entitled to recover or be paid for any work thereof actually performed under the contract.

9. **Contract not to Sub-let:** The contractor shall not subcontract/sublet the work assigned to him. If the contractor shall assign or sublet any part or whole of this contract or attempt to do so, the contract shall be rescinded with forfeiture of the EMD, ISD and penalty will be imposed as may be decided by Cuttack Municipal Corporation (CMC).

10. **Payment/Deduction/Withhold/Retention of Duties, Levies, Taxes & Security Deposit:**

(i) The contractor shall bear all Taxes Duties, Levies, Central and State Taxes Cess, Entry Tax, Income Tax, Royalties, Fair Weather Charges and Tollages, as applicable, & Cuttack Municipal Corporation (CMC) shall not entertain any claim whatsoever in this respect other than admissible for payment as per rules and practices. Statutory withhold/deduction of taxes, SD, MSD as applicable, shall be done by Cuttack Municipal Corporation (CMC) from each running account bill of the contractor.

ii. Notwithstanding anything contained in this DTCN, 8 % if each bill amount found payable to the contractor, as decided and corrected by Cuttack Municipal Corporation (CMC), shall be withheld by Cuttack Municipal Corporation (CMC) from each bill towards performance security. The EMD and ISD (as applicable) with the withheld performance security amount(s) shall be treated as Security Deposit (SD) and retained by Cuttack Municipal Corporation (CMC) till such period for due fulfilment of the agreement conditions by the contractor vide Special Conditions of this DTCN.

11. **No Payment for Preparatory/Facilitating Works, etc:** No payment shall be made by Cuttack Municipal Corporation (CMC) towards survey and preparatory/facilitating

works/items such as; investigation, testing, commissioning, site cleaning and levelling precaution and safety gear, inspection, etc. After the work is finished, all surplus materials, preparatory/facilitating works such as; vat, cement mortar/concrete mixing platform, scaffolding, etc., should be removed from the sites and the sites should be made clean/free from unwanted/unnecessary (as decided by Cuttack Municipal Corporation (CMC)) objects/articles both biotic and abiotic in nature. The sites should be cleared and dressed properly with outward slopes away from the structure(s), if any. After the work is completed in all respects, the contractor shall vacate the site within a week from the date of completion & commissioning after making good the damages, if any.

12. Custody of Materials: The contractor shall be responsible for safe custody of his/her/their materials at the work sites and Cuttack Municipal Corporation (CMC) will not be responsible for any loss or damage of the property at site. There should not be any conflict of interest or relaxation/exoneration of responsibility of the contractor as per this DTCN/Contract, on any account whatsoever, regarding the work(s)/material(s)/property, of Cuttack Municipal Corporation (CMC) or of, any other agency/organisation engaged/allowed by Cuttack Municipal Corporation (CMC), available/to be made available/going on/to be started, at or in connection with the works of three parks, failing which Name of the ULB) shall adopt any action deemed fit against the contractor with a view to continuing and complete the works. The portion or whole of the work executed by the contractor in connection with this contract shall remain in safe custody, watch & ward of the contractor till the same are handed over by the contractor to Cuttack Municipal Corporation (CMC) in required shape and manner or till, Cuttack Municipal Corporation (CMC) takes them over either unilaterally or as per this contract. Responsibility arising out of this safe custody, watch and ward till Cuttack Municipal Corporation (CMC) declares/assumes its right over the same, shall lie with the contractor. No claim in this regard by the contractor shall be acceptable by Cuttack Municipal Corporation (CMC).

13. Supply of Materials:

(1) The contractor shall at his own expenses provide all materials required for the work. The materials supplied by the contractor shall conform to relevant latest editions of BIS specifications and Codes of Practices or in their absence to other specifications as may be decided by Cuttack Municipal Corporation (CMC). The contractor shall furnish necessary certificate(s) In support of the quality of the materials as may be required by Cuttack Municipal Corporation (CMC). In the event of there, being no specifications born in the SORSs of Odisha for the Items required for the work, whether Included In the Financial Bld or not, such items of the work shall be carried out by the contractor In accordance with the Instructions and requirements of Cuttack Municipal Corporation (CMC).

(ii) Cuttack Municipal Corporation (CMC) shall have absolute authority to test the quality of materials at any time through any reputed laboratory at the cost of contractor. The contractor shall not be eligible for any claim or compensation elther arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

(iii) Cuttack Municipal Corporation (CMC) shall have the right for removal from the work sites, of all materials which, in its opinion, are not in accordance with the specifications and in case of default, Cuttack Municipal Corporation (CMC) shall be at liberty to sell such materials and/or to employ other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials.

14. Contractor to Provide and Facilitate Inspection, Safety Gear, etc:

(i) **Scaffolding:** Suitable scaffolding shall be provided for workmen for all works that cannot be safely done from the ground or solid construction except such short period of work as can be done safely from the ladders. When a ladder is used an extra labour shall be engaged for holding the ladder and if the ladder is used in carrying the materials, suitable foot holds and handholds shall be provided on the ladder.

(ii) **Inspection:** Cuttack Municipal Corporation (CMC) will have the right to Inspect the scaffolding and centring etc. for the work and can reject partly or fully such structure if found defective in his opinion.

(iii) **Working Platforms:** Working platforms, gangways and stairways shall be constructed such that they do not sag unduly or unequally. If the height of the platforms or gangway or stairway is more than 3.25 meters above the ground or floor level, it shall be closely guarded, have adequate width and suitably fenced.

(iv) **Safe Means of Access:** Safe means of access shall be provided to all working platforms and other working places.

(v) **Precaution Against Electrical Equipment:** Adequate precaution shall be taken to prevent danger from electrical equipment. Hand lamps shall be provided with Mesh guard, wherever required.

(vi) **Preventing Public from Accident:** No materials on any of the sites shall be so stacked or placed as to cause danger or inconvenience to any person or public. The contractor shall provide all necessary fencing and light to protect the public from accident and shall be bound to bear expenses of defense or any suit action or other proceedings at law that may be brought by any persons for Injury sustained owing to neglect of the above precaution and to pay any damages and cost which may be awarded in any such suit action or proceedings to any such person or which may with the consent of the contractor, be paid to compromise any claim by any such person. The contractor not to come cause blockage of traffic /disruption of the traffic.

(vii) **Personal Safety Equipment:** All personal safety equipment shall be made adequately available by the contractor for use of persons employed at the site of work and maintained in a condition suitable for immediate use. The contractor shall take adequate steps to ensure proper use of the equipment by persons concerned.

(viii) **Precaution Against Fire:** Suitable fire extinguishers, water and sand buckets shall be provided at the work site to tackle situations of fire.

(ix) **Demolition:** Before any demolition work is commenced and also during process of work;

a) all roads and open areas adjacent to the work site shall either be closed or suitably protected,

b) no electric cable or apparatus which is liable to be a source of danger shall remain electrically charged.

C)all practical steps shall be taken to prevent danger to persons employed from the risk of fire, explosion or flooding,

d) no floor roof or other parts of the building shall be over loaded with debris or materials which may render it unsafe.

15. **Fair Wages Clause:** (a) The contractor shall not employ for the purpose of this contract any person who is below the age of fourteen years and shall pay to each labour for work done by such labourers fair wages.

Explanation "**Fair Wage**" means wages, whether for time or piece work prescribed by the State Public Works Department provided that where higher rates have been prescribed under the minimum wages Act 1948 wages at such higher rates should constitute fair wages. Cuttack Municipal Corporation (CMC) shall have the right to enquire into and decide any complaint alleging that the wages paid by the contractor to any labour for the work done by such labour is less than the wages described above.

(b) Cuttack Municipal Corporation (CMC) shall have the right to enquire whether any labour employed by the contractor is below the age of fourteen years and to refuse to allow any labour below the age of fourteen years for engagement in this work by the contractor.

C. The contractor shall, notwithstanding the provisions of any contract to contrary, cause to be paid a fair wage to labourers indirectly engaged on the work including any labour engaged by his sub-contractors in connection with the said work, as if, the labourers had been immediately employed by him.

d. In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the contractor shall comply with or cause to be

complied with all regulations made by Government In regard to payment of wages, wage period deductions from wages, recovery of wages not paid and deductions unauthorisedly made, maintenance of wage register, wage cards, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of a like nature.

e. City Engineer/Executive Engineer, Cuttack Municipal Corporation (CMC) shall have the right to deduct, from the money due to the contractor, any such required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of the workers non-payment of wages or of deduction made from his or their wages, which are not justified by their terms of the contract or non-observance of the regulations. Money so deducted should be transferred to the workers concerned.

f. Vis-à-vis, Cuttack Municipal Corporation (CMC), the contractor shall be primarily liable for all payments to be made under and for the observance of the regulations aforesaid without prejudice to his right to claim indemnity from his sub- contractor.

g. The regulations aforesaid shall be deemed to be a part of this contract and any breach thereof shall be breach of this contract.

16. Contractor to Respond for Disengagement of Unruly Labour/Personnel : Cuttack Municipal Corporation are to have round the clock access to the work sites during execution and defect liability period. Cuttack Municipal Corporation (CMC) may require the contractor to remove dismiss any labour/representative(s) of person of the contractor's found to be incompetent or ill mannered/behaved or of doubtful background/integrity, etc., and the contractor shall comply with such requirements.

17. Provision for Workman Compensation: Cuttack Municipal Corporation (CMC) shall not be held liable to pay any compensation to any workman under workman's compensation Act, 1923. The contractor shall have to pay the entire compensation as decided in any court of law for any injury/loss sustained by any workman during execution of the work. If, by order of any authority/court, Cuttack Municipal Corporation (CMC) pays any compensation to honour and abide the order, then the said amount(s) shall be recovered from the contractor.

18. Contractor to IndemnifyCuttack Municipal Corporation (CMC): The contractor shall take every precaution not to damage or injure life and/or property of any person/organisation/entity in connection with this work. He shall indemnify and keep Cuttack Municipal Corporation (CMC) indemnified against all claims for injuries or damages to any person/property which may arise out of or in consequence of any negligence or fault of the selected bidder for this work and, for all the claims, demands, proceedings, damages, costs, charges and expenses whatsoever, in respect of or in relation thereto, the contractor shall be responsible. Cuttack Municipal Corporation (CMC) will not assume any responsibility on this account.

19. Resident Engineer(s) and Assistant(s): The contractor shall engage for this work, qualified and experienced Resident Engineer(s) and Assistant(s) to the satisfaction of Cuttack Municipal Corporation (CMC). The Resident Engineer(s) shall represent the contractor in his/her/their absence for receiving instructions of Cuttack Municipal Corporation (CMC) which will be binding on the contractor.

20. Odisha PWD / Electricity Department Contractor Labour Regulations

20.1 "Contractor" shall include every person whether a sub-contractor or headman or agent employing labour on the work taken on contract.

20.2 "Wages" shall have the same meaning as defined in the payment of Wages Act and include time and piece rate wages, if any.

20.3 Display of Notices Regarding Wages, etc.: The contractor shall;

- a. Before he commences his work on contract display and correctly maintain and continue to display and correctly maintain, in a clean and legible condition, in conspicuous places on the work, notices in English and in the local Indian language spoken by the majority of the workers, giving the rate of wag prescribed by the State Public Works Department / Electricity Department for the district in which the work is done.

b. Send a copy of such notices to the Engineer-in-charge of the work.

20.4 Payment of Wages:

(a) Wages due to every worker shall be paid to him direct.

(b) All wages shall be paid in current coin or currency or in both

20.5 Fixation of Wage Period:

(a) The contractor shall fix the wage period in respect of which the wages be payable. No wage period shall exceed one month.

(b) Wages of every workman employed on the contract shall be paid before, the expiry of ten days, after the last day of the wage period in respect of which the wages are payable.

(c) When the employment of any worker is terminated by or on behalf of the contractor, the wages earned by him shall be paid before the expiry of the day succeeding the one on which his employment is terminated.

(d) All payments of wages shall be made on a working day

20.6 Wage Book and Wage Cards, etc.: (1) The contractor shall maintain a wage book of each worker in such form as may be convenient, but the same shall include the following particulars-

a. Rate of daily or monthly wages.

b. Nature of work on which employed

c. Total number of days worked during each wage period

d. Total amount payable for the work during each wage period.

e. All deductions made from the wages with an indication in each case of the ground for which the deduction is made.

f. Wage actually paid for each wage period.

(2) The contractor shall also maintain a wage card for each worker employed on the work.

(3) City Engineer/Municipal Engineer, Cuttack Municipal Corporation (CMC) may grant an exemption from the maintenance of wage bond, wage cards to contractor who, in his opinion - may not directly or indirectly employ more than 100 persons on the work.

20.7 Fines and Deductions Which May be Made from Wages:

(1) The wages of a worker shall be paid to him without and deduction of any kind except the following –

a. Fines

b. Deductions for absence from duty, i.e., from the place of places whereby the terms of his employment he is required to work. The amount of deductions shall be in proportion to the period for which he was absence.

c. Deductions for damage to or loss of good expressly entrusted to the employed person for custody or for loss of money for which he is required to account where such damage or loss is directly attributable to his neglect or default.

d. Any other deductions which the Odisha Government may from time to time allow

(2) No fines shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deduction.

(3) The total amount of fines which may be imposed in any one wage period on a works shall not exceed an amount equal to five paise in a rupee of the wages payable to him in respect of that wage period.

(4) No fine imposed on any worker shall be recovered from him by installments, or after the expiry of 60 days from the date on which it was imposed.

20.8 Register of Fines, etc.:

(a) The contractor shall maintain a register of fines and of all deduction for damage or loss. Such register shall mention the reason for which fine was imposed or deduction for damage or loss was made.

(b) The contractor shall maintain a list in English and in the local Indian language, clearly defining acts and omissions for which penalty of fine can be imposed. It shall display such list and maintain it in a clean and legible condition in conspicuous places on the work.

20.9 Preservation of Register: The wage register, the wage cards and the register of fines, deduction required to be maintained under the regulations shall be preserved for 12 (twelve) months after day of the last entry made in them.

20.10 Powers of Labour Welfare Officer(s) to Conduct Investigation or Enquiry:

The Labour Welfare Officer(s) or any other person(s) authorized by the Government of Odisha on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of the fair wage clauses and the provisions of these regulations. He shall investigate into any complaint regarding default made by the contractor, sub-contractor in regard to such provisions.

20.11 Report of Labour Welfare Officer(s): The Labour Welfare Officer or others authorized as aforesaid shall submit a report of the results of his investigation or enquiry to City Engineer/Municipal Engineer, Cuttack Municipal Corporation (CMC) indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor bill be made and the wages and other dues be paid to the labourers concerned.

20.12 Appeal Against the Decision of Labour Welfare Officer: Any persons aggrieved by the decision and recommendation of the Labour Welfare Officer or other person so authorized may appeal against such decision to the Labour Commissioner within 30 days from the date of decision forwarding simultaneously a copy of his appeal to City Engineer/Municipal Engineer, Cuttack Municipal Corporation (CMC) but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.

20.13 Inspection of Register: The contractor shall also allow inspection of the wage book and wage cards to the wage book and wage cards to any of his workers or to his agent at a convenient time and place after due notice is received, or to the Labour Commissioner or any other person authorized by the Government of Odisha on his behalf.

20.14 Submission of Return: The contractor shall submit periodical returns as may be specified from time to time.

20.15 Amendments: The Government of Odisha may from time to time, add to or amend these regulations and on any question as to the application, interpretation of effect of these regulations, the decision of the Labour Commissioner or any other person authorized by the Government of Odisha in that behalf shall be final.

21. Unilateral Stoppage of Work Progress: Unilateral stoppage of work by the contractor, without prior written permission of Cuttack Municipal Corporation (CMC), shall be considered as breach of contract and Cuttack Municipal Corporation (CMC) reserves the right to take such actions as it may deem fit against the contractor.

22. Rescission of Contract: Subject to other provisions contained in this DTCN or in the agreement, Cuttack Municipal Corporation (CMC) may, without prejudice to any other right or remedy available to the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, rescind the contract in any of the following cases:

i) If the contractor having been given by Cuttack Municipal Corporation (CMC) a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper manner shall omit/fail to comply with the requirement of such notice for a period of seven days thereafter.

ii) If the contractor being a company shall pass a resolution & the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if that circumstances shall arise which may entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.

iii) If the contractor has, without reasonable cause, suspended the progress of the work without due diligence so that in the opinion of City Engineer/Municipal Engineer (which shall be final & binding) he will be unable to secure completion of the work by the due date of completion and continues to do so after a notice in writing of seven days from City Engineer/Municipal Engineer, Cuttack Municipal Corporation (CMC).

Iv) If the contractor fails to follow and comply with the relevant provisions this DTCN and/or agreement.

v) If the contractor fails to complete the work within the stipulated date or items of the work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the stipulated period.

When the contractor has made himself liable for action under any of the cases aforesaid, Cuttack Municipal Corporation (CMC) shall have the power to rescind the contract (of which rescission notice in writing to the contractor under the hand of City Engineer/ Executive Engineer / Municipal Engineer shall be conclusive evidence), 20% of the value of the left over work will be realized from the contractor as Penalty in addition to other punitive measures deemed fit by Cuttack Municipal Corporation (CMC) including debarring the contractor from participating in Cuttack Municipal Corporation (CMC) tenders at least for 3 years, blocking his/her/their DSC in the e-procurement portal and recommending the corresponding license issue authority not to renew the license of the contractor

In case of rescission of contract, the contractor shall have no claim for compensation for any loss sustained by him by reasons of having purchased or procured any materials or entered any engagement on account of or with a view to execute the work /performance of the contractor.

23. Black Listing: A contract may be black listed as per the amendment made to Appendix XXXIV to OPWD Code Vol-II on rules for black listing of Contractors vide letter No.3365 Dt.01.03.2007 of Works Department, Odisha. As per said amendment a Contractor may be blacklisted.

a) Misbehavior/threatening of Departmental & supervisory officers during execution of work/tendering process.

b) Involvement in any sort of tender fixing.

c) Constant non-achievement of milestones on insufficient and Imaginary grounds and non-adherence to quality specifications despite being pointed out.

d) Persistent and intentional violation of important conditions of contract.

e) Security consideration of the State i.e., any action that jeopardizes the security of the State.

f) Submission of false/ fabricated / forged documents for consideration of a tender.

In case a contractor is black listed, it will be widely published and intimated to all Departments of Government and also to Govt. of India Agencies working in the state.

24. Force Majeure: Neither the contractor nor Cuttack Municipal Corporation (CMC) shall be considered in default in delayed performance of its obligation if such performance is prevented or delayed because of work to hostilities, revolution, civil commotion, epidemic, accident, fire, cyclone, flood, earthquake or because of any law and order proclamation, regulations or ordinance of the Government thereof or because of any act of God or for any cause beyond reasonable control of the party affected. Should one or both the parties be prevented from fulfilling their contractual obligations due to the aforesaid a state of force majeure lasting continuously for a period of 6 months, the two parties may consult each other regarding the future execution of the contract for mutual settlement.

25. Jurisdiction for Legal Dispute: That for the purpose of jurisdiction in the event of dispute if any, the contract should be deemed to have been entered into within the State of Odisha and it is agreed that neither party to this agreement will be competent to bring a suit with regard to the matters covered by this contract at any place outside Odisha.

SPECIAL CONDITIONS OF THE DTCN/CONTRACT

1. The stipulated date of commencement of the work shall be the date on which the agreement is signed/executed/drawn between Cuttack Municipal Corporation (CMC)& the contractor.

2. The contractor shall not be entitled to any compensation on account of delay in locating the sites by Cuttack Municipal Corporation (CMC) or due to any natural calamity or labour unrest or non-availability of labour, theft of materials or any kind of force majeure situation, etc.

3. If the contractor could not achieve proportionate progress with respect to time, then Cuttack Municipal Corporation (CMC) shall have the right to take any action deemed fit against the contractor as per the agreement and/or OPWD Code including rescind of contract, levy of penalty, etc. In case of non-cooperation/deliberate delay either to start or expedite and complete the work/utterly or written defiance to achieve required quality and progress/unnecessary or uncalled for correspondence(s) embedded with condition(s)/instruction(s) not commensurate

Contractor

with the explicit condition(s) of the agreement by the contractor for the work, Cuttack Municipal Corporation (CMC) shall not only have the right to rescind the contract but also to execute either the whole or balance portion of the work through MSG following the instruction given vide HUD-FUND-SCH- 0003-2023 Letter no-15616/Dated 05.08.2023 and the excess expenditure if any, for execution of the same, shall be recovered from the contractor resorting to the procedures deemed fit by Cuttack Municipal Corporation (CMC). The employer (Cuttack Municipal Corporation (CMC)) also reserves the right whether to respond or not to the correspondence(s)/queries of the contractor or any other organisation/entity regarding this work. And/or the conditions/Instructions associated with this work.

4. The decision of Commissioner/Executive Engineer, Cuttack Municipal Corporation (CMC) regarding the reasons for delay, if any, in completion of the work shall be final and binding on the contractor. If the Commissioner/ Executive Engineer, Cuttack Municipal Corporation (CMC) is not satisfied regarding the genuineness of delay for progress and/or completion of the work, then he/she may impose penalty upon the contractor @0.05% per day of delay of the value of work lying unfinished beyond stipulated date of completion subject to a maximum 10% of the agreement amount/value of unfinished work.

5. Cuttack Municipal Corporation (CMC) reserves the right, to make such increase or decrease in the quantities and/or items of the work which are considered necessary during the course of execution. Such increase or decrease shall be at the discretion of Cuttack Municipal Corporation (CMC) and in no case, shall invalidate the contract except the corresponding financial involvement admissible by/acceptable to Cuttack Municipal Corporation (CMC)

6. Extra item and/or quantities of the work, if found essential for the project, shall be covered under supplementary agreement to be drawn between the contractor & Cuttack Municipal Corporation (CMC). The rate(s) for such item(s) and quantity(s) shall be the prevailing Govt. of Odisha Schedule of Rates (SOR) of PHEO & Works Deptt. or local market rate(s), as applicable for the items/components not covered under SOR subject to approval of City Engineer/Municipal Engineer, Cuttack Municipal Corporation (CMC)

7. The contractor shall put his/her/their signature in the measurement book(s) and bill(s) (before payment) as a token of acceptance of the quantities, specifications, rates and amounts of the bill (s) and no further claim in this regard shall be entertained by Cuttack Municipal Corporation.

8. Defect liability period must cover concurrent three years. Maintenance period of the constructed roads to ensure qualitative work & good condition of road for at least 3 years period. In addition to that 10% Security deposit (2 % towards initial security deposit at the time of signing of the agreement + 8 % Security Deposit(SD) to be deducted from running or final bill amount to cover the maintenance period of the work), which shall be released to the Executing Agency 2% at the end of 1st year after completion of the work, @3% at the end of 2nd year after completion of the work and @5% at the end of 3rd year after completion of the work. In case, the Executing Agency fails to maintain the road properly during the above mentioned three years period, the ULB shall incur expenditure and maintain the road at the cost and risk of the Executing Agency and the entire expenditure so incurred by the ULB shall be recovered from the security deposit available with the ULB, apart from blacklisting of the contractor.

9. The timeline(s) for the nature of work(s) to be executed by shall be communicated by Cuttack Municipal Corporation (CMC) through whatsapp /physically/e-mail/letter by post and contractor has to abide by the same failing which it will be treated as a breach of contract and hence, Cuttack Municipal Corporation will be at liberty to take any action deemed fit against the contractor including levy of economic penalty and/or other punitive measures such as; debar from participating in Cuttack Municipal Corporation (CMC) tenders, blocking of DSC of the contractor, etc.

10. The APS (if any) submitted by the contractor shall be refunded within two months from the date of satisfactory completion of the original work.

11. No interest will be paid by Cuttack Municipal Corporation (CMC) on the EMD furnished by any bidder, on the EMD and ISD of the contractor and on the amount(s) to be retained/withheld/deducted by Cuttack Municipal Corporation (CMC) from the bill amount(s) of Contractor

the contractor or upon delay in release of payment(s) or release of deposit(s) of the bidder(s)/contractor.

No claim in this regard in any manner by the contractor or any organisation/entity shall be entertained/accepted by Cuttack Municipal Corporation (CMC).

SECTION – 05

SCOPE OF WORK

GENERAL

The intent of this Section is to specify the work items to be covered on **Percentage Rate Bids** in conformity with the technical specifications as enumerated in the subsequent clauses for the work “As per NIT”.

5.1. **Location:**

Town : **Cuttack**
District : **Cuttack**
State : **Odisha**

5.2 **Intent of this Section**

The intent of this section is to cover “As per NIT” as per the required specification mentioned in the Bill of Quantity all complete in connection with the work .

The provisions under this section shall be read in conjunction with the Conditions of Contract (Section-03), Special Condition of Contract (Section-04) of this DTCN and other documents issued by **Cuttack Municipal Corporation, which shall also form a part of the Contract.**

5.3 **Scope of Work**

The scope of work shall cover all the items on ‘**Percentage Rate Basis**’ in conformity with the technical specifications as enumerated in the BOQ and subsequent clauses in connection with the work **as described in the NIT**

The above scope of works is not exhaustive but gives only an idea about the type of work involved. Any other items/works, which have not been specifically mentioned but required for completeness and soundness of the systems, shall be automatically covered within the scope of work & no extra claim shall be entertained due to such coverage.

5.4. **Site Visit:**

The tenderer shall inspect the site at his own cost and shall satisfy himself with regard to the nature and extent of the work involved, the actual site conditions, existing facilities & shall collect any other information which may be required before submitting the tender. Any claim afterwards by the tenderer shall not be entertained on account of the ignorance of the site conditions.

5.5. **Format Language and Units:**

The language of all documents shall be in English. Units of measurement in the documents, on the drawings, and the submissions shall be in S.I/ Metric Units.

5.6. **Quality of Material and Workmanship:**

All the materials supplied by the contractor shall be best of their respective kinds and shall comply with latest revisions of Indian Standards/International Standards/ Water Supply & Public Health regulations stipulated by Govt. of India, AWWA, State Pollution Control & Prevention Board, Indian Electricity Rules and other statutory requirements of Govt. of India and Govt. of Orissa.

The contractor shall be responsible for the quality of materials supplied by him and workmanship. The contractor shall guarantee the satisfactory functioning & performance of entire laid rising main from intake well to water treatment plant. If any modification/ replacement is necessitated during trial-run and guarantee period, the same shall be carried out immediately free of cost.

5.7. **Construction & Erection Facilities:**

Water, power, accommodation and storage of materials for construction, erection and fabrication at site shall be arranged by the contractor at his own cost. The power supply & consumption during the construction stage shall be the responsibility of the contractor & no extra payment shall be made on account of this.

5.8. **Inspection & Testing:**

For all materials, the contractor shall furnish Manufacturer's test certificate with each consignment. At site, Testing and inspection shall be carried out as per Indian standards/International Standards in presence of Engineer-in-Charge, contractor and manufacturer.

Inspection by the Engineer-in-charge of the Department shall not relieve the contractor of his liability for rectifying the defects which may subsequently appear or be detected during testing and commissioning or subsequent operation. After rectification of the defects or replacement, the equipments shall be re-tested to the satisfaction of the Department.

All equipments, labour, tools & tackles, instruments and other facilities for testing shall be provided by the contractor. He shall also maintain records of all the tests and furnish copies of the same to the Department.

Whenever untested materials are used, written permission from the Engineer-in-Charge shall be obtained. Manufacturer's test certificates shall be furnished by the contractor for such equipments and materials used.

The Department reserves the right to test any material at any of the reputed laboratories if necessity arises & the cost of such test(s) shall be borne by the contractor & rejected materials shall have to be replaced by the contractor by approved material at his cost.

5.9. **Completion Schedule:**

The time is the essence of this contract. The entire job is to be completed within a time frame as mentioned in the NIT from the date of issue of work order by the Executive EngineerCMC, Cuttack. The tenderer shall submit a Bar Chart indicating starting and completion dates of each activity such as submission of designs & drawings, site mobilization, procurement of materials and equipment, transportation, execution, assembly/ erection, testing, trial running and commissioning without which the tender shall be liable for rejection.

On approval, the Bar Chart shall form a part of the contract as detailed in the DTCN. The successful tenderer shall submit PERT Network based on above Bar Chart for monitoring of the project as per relevant clause of "Conditions of Contract/Special Condition of Contract".

5.10. **Schedule of Tender for Submission:**

The tenderer shall submit the following details in addition to other documents as indicated elsewhere in this DTCN along with the 'General & Techno-commercial Bid' of his tender document without which his 'tender' shall not be considered further for appraisal.

- i) Detailed specifications with codes/standards of all the materials/ Equipment / construction work etc, with makes & their source of supply and testing codes including manufacturer's catalogue.
- ii) Delivery period with Bar Chart for the complete scheme.
- iii) Equipments, tools & tackles (with their capacities) proposed to be mobilised to the site.
- iv) Personnel & staff proposed to be deployed at site.

- v) Past experience of the Tenderer with respect to eligibility criteria. A list of similar jobs designed & executed by the tenderer with their capacity, year of commencement & installation, value of work and full addresses of their client.
- vi) Brief details of the tenderer, technical personnel/ executive Employed with the tenderer, their qualifications & experience, Organisation chart.

5.11 **Payment Criteria**

Since the contract is on percentage rate basis, running bills shall be prepared as per the actual quantities of item of works executed at the accepted offered rates. **90%** of such bill amount or value of works shall be paid against each running bill after statutory deductions as per **clause 4.6 & 4.7** of special conditions of contract and **clause 23.6** of Instructions to bidders while the balance **10 %** shall be paid after final measurement testing and commissioning.

BROAD SCOPE OF WORK.

The broad scope of work shall include execution of all Civil, Architectural (including Horticulture and Landscaping), Electrical works as per the Schedule of Rates (S.O.R), Specifications, Engineering Standards and construction Drawings. Contractor shall do all necessary co-ordination activities with OWNER

1.1 Detailed scope of work

1.1.1 Civil Works:

- Earthwork in excavation in all types of soil for civil works, jogging track, foundations, paved areas or any other place as per direction of Engineer-in-Charge. The water table depth may fluctuate. The quoted rate of excavation shall include requirement of dewatering etc. for completion of total works including concreting, backfilling etc. and no extra amount is payable on this account. Earthwork in filling with available excavated earth for site grading or any other place including compacting to achieve at least 90% of maximum laboratory dry density as per IS: 2720 Part VII and testing the degree of consolidation all complete as per direction of Engineer-In-Charge. Earthwork in filling with borrow earth for site grading or any other place including compacting to achieve at least 90% of maximum laboratory dry density as per IS: 2720 Part VII and testing the degree of consolidation all complete as per direction of Engineer-In-Charge. (Borrow areas shall be arranged by Contractor at his own cost.). Filling with excavated/borrow earth for mound (Maximum Height upto 1.5m) as per drawing, direction of Engineer-in-Charge all complete. PCC works for jogging track, foundation or any other place as per direction of Engineer-in-Charge all complete excluding Centering & shuttering. Centering & shuttering in sub-structure at all depths and in super-structure at all heights/ elevations. RCC works including centering and shuttering for foundation of gazebo or any other structure as per direction of Engineer-in-Charge all complete.
- Supplying & placing Steel reinforcement for R.C.C. work using FE - 500 (D) HYSD Steel Bars conforming to IS:1786 including straightening, cutting, bending, placing in position and binding (including cost of binding wire 18 to 20 Gauge) all complete for all works at all levels

- Providing, laying water bound macadam sub-base (Over burnt Jhama brick aggregate 90 mm to 45 mm) and blinding material, earth etc. including screening, sorting and spreading to template and consolidation with light power road-roller etc. complete as per EIC.
- Fly ash Brick masonry in substructure and superstructure for all depths and heights as per specifications.
- Providing and laying pre-cast C.C. Kerb stones in 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) including setting in position all complete as per direction of Engineer-in-Charge.
- Dismantling/ Demolishing of PCC/RCC, brickwork for all depths below plinth level and all heights above plinth level including disposal of unserviceable item outside **park** area. Stacking & depositing of serviceable items at locations as identified and approved by Engineer-in-Charge.
- Disposal of malba /rubbish or similar unserviceable materials by mechanical means beyond 50m initial lead including all lifts involved including loading & unloading.
- Any other miscellaneous work as per specifications, codes etc. but not specifically mentioned in scope of work shall form part of scope of work.
- Obtaining statutory approvals from local bodies (including existing complex) and other designated authorities etc.

1.1.2 Architectural works (including Horticulture and Landscaping).

The detail scope of work shall include (but not shall be limited to) the following:

- Landscaping and horticulture works.
- Supply and installation of FRP play equipment, Outdoor fitness equipment, benches, dustbins, sculpture etc.
- Cement concrete interlocking paver blocks/ Chequerred Tiles in Jogging Track.
- Other miscellaneous items as per attached “Schedule of rates”.
- Third Party inspection and testing of Play equipment & Outdoor fitness equipment.

2.0 SCOPE OF SUPPLY

2.1 Owner’s Scope of Supply

Nil

2.2 Contractor’s Scope of Supply

All materials (consumables & non-consumables), tools tackles etc. as required for satisfactory completion of the job shall be supplied by the contractor. Prior approval from Owner/ Engineer In-charge shall be obtained prior to use of all material at site.

3.0 SPECIFICATIONS

The works shall be performed conforming to the Indian Standard codes, P.H.D & P.W.D. specifications of the State Government. Wherever such specifications are not available, CPWD specifications, relevant references, manuals etc. shall be followed as directed by Owner. For Horticulture and landscaping works CPWD-Delhi Schedule of Rates, Analysis of Rate and Specifications (Horticulture & Landscaping) 2014 shall be followed.

SECTION – 6

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATION OF CIVIL PORTION OF WORK

Materials of following specification are to be used in work. The Tenderer are expected to possess and be well conversant with the following IS standard and code of practice.

1.	Cement	Will be as per I.S. 269/455 (However the grade of cement to be selected by the Engineer-in-Charge of work and complex cube test before commencement of work in each batch).
2.	Steel	I.S. 432 (Plain) and 1786 (Tor)
3.	Vibrator	I.S. 7246
4.	Aggregate	I.S. 383, I.S. 515
5.	Water for mixing and curing	Shall be clean, free from injurious amount of oil, salt, acid, vegetable materials and other substances and harmful to concrete in conformity to I.S. 456 and I.S. 3025.
6.	Sand / Fine Aggregate	I.S. 2116, 383
7.	Binding wire	I.S. 280 (galvanised minimum 1 mm)
8.	Rain water pipe	I.S. 2527
9.	Construction joints	I.S. 3414
10.	Steel Window Frame	I.S. 1038/83
11.	Steel Door Frame	I.S. 4351/75
12.	Fitting & Fixtures for journey works	Conforming to I.S. 7452/82 strictly conform to I.S. specification and as per direction of Engineer-in-Charge.

Note : For road work (Approach Road) specification as per road and bridges (latest edition) published by I.R.C & M.O.S.T. shall be followed. In case of any doubt and absence of provision, regarding specification I.S. shall be referred (Indian standard).

ITEM OF WORK

1. Concrete shall be with conformity to I.S.456.
2. Foundation shall be with conformity to I.S.1080.
3. Stone masonry (R.R.) shall be with conformity to I.S.1597 (Part-I)
4. C.R. Masonry shall be with conformity to I.S.1597.
5. Brick masonry shall be with conformity to I.S.2212.
6. Cement plastering shall be with conformity to I.S.9103 & 6925.
7. Mortar shall be with conformity to I.S.2250
8. White and colour washing shall be with conformity to I.S.6278.
9. CC in foundation shall be with conformity to I.S.2571.
10. Anti-Termite Treatment shall be with conformity to I.S.6813. (Part – I & Part – II)

11. Painting to all surfaces shall be with conformity to I.S.2395 (Part – I & Part – II)
12. DPC shall be with conformity to I.S.3067
13. Tarfelt treatment shall be with conformity to I.S.1346
14. Mosaic flooring with conformity to I.S.2114

Steel painting shall be with conformity to I.S.1477 (Part – I & Part – II) I.S.1661

TECHNICAL SPECIFICATION OF PAVER BLOCK ROAD/FOOTPATH/JOGGING TRACK/FOOTPATH

DESIGN CONSTRUCTION SPECIFICATION

COMPOSITION OF BLOCK PAVEMENT

4.1 General

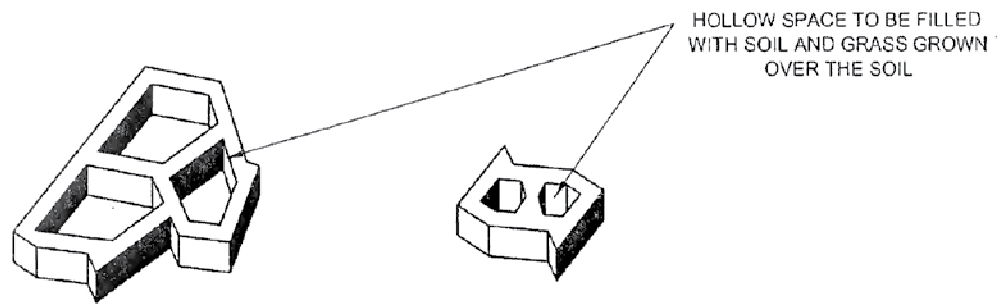
Except for the top wearing part of the pavement, the base and sub-bas layers are similar to the conventional flexible or rigid pavement. Depending upon the load coming on them, the composition of the pavement differs.

4.2 Typical Pavement Composition

A few typical composition normally used are given in **Figs. 5 and 6**.

4.3 Block Thickness

Interlocking concrete blocks come in different thicknesses. These blocks serve as wearing surface but at the same time help in reducing the stresses imposed on subgrade and also help in resisting pavement deformation and elastic deflections similar to the base course of a flexible pavement.



TYPICAL GRASS BLOCKS

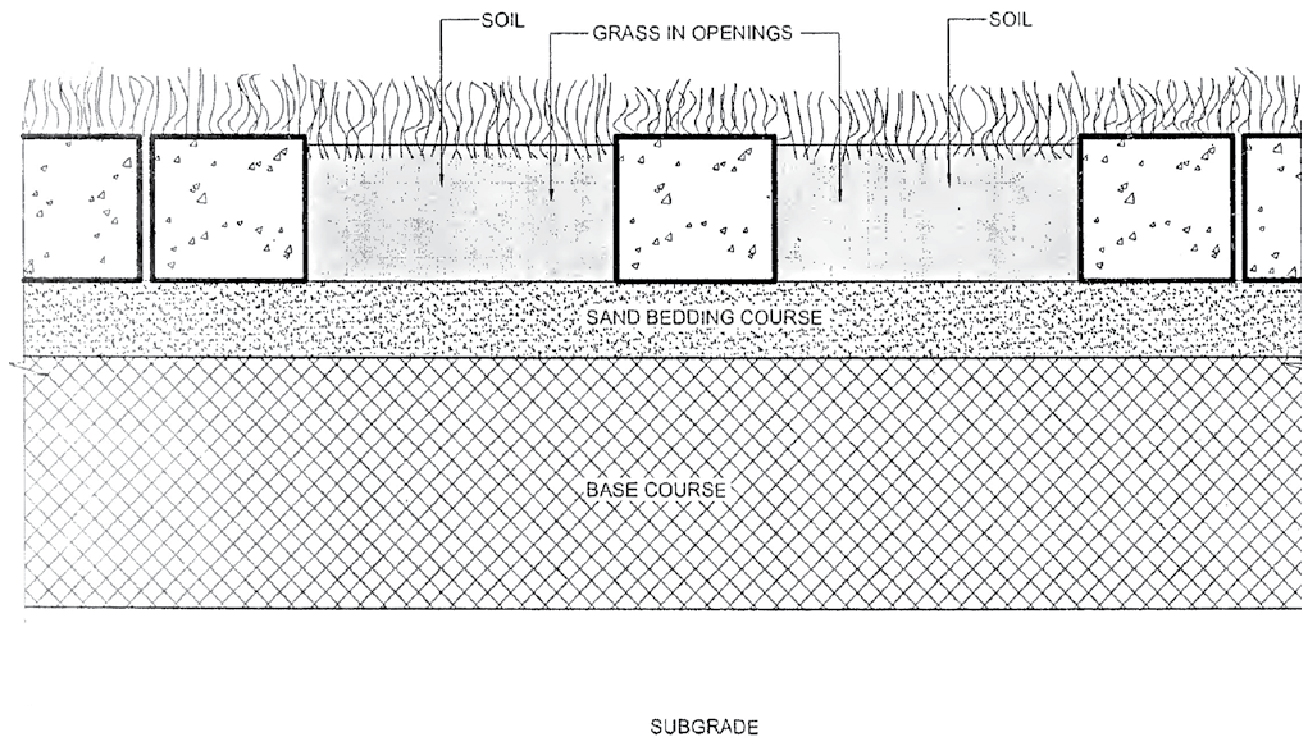


Fig.4 Grass Blocks and Construction Technique

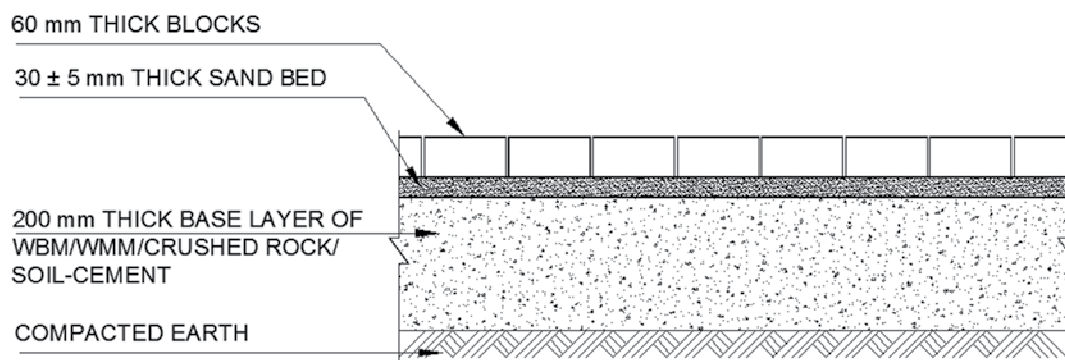


Fig. 5 Typical Cross Section of Block Pavement used in Sidewalks/Footpaths/Car-Parks/Cycle Tracks

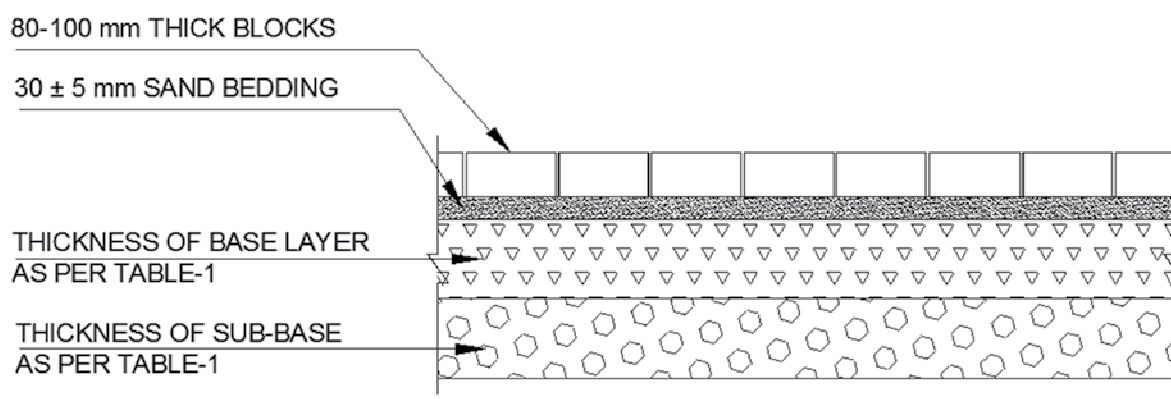


Fig. 6 Typical Cross Section of Block Pavement for Medium and Heavily Trafficked Roads except National-Highways, Expressways, State Highways and MDR

For light traffic, such as, pedestrians, motor cars, cycles, etc., a block thickness of 60 mm is adequate; for medium traffic, a thickness of 80 mm is generally used; for heavily trafficked roads, blocks of the thickness 100-120 mm are used. Thick blocks are best suited where high volumes of turning movements are involved.

Non-uniformity in thickness of blocks affects the evenness of the surface. A block pavement which is initially paved to a levelled surface will settle unevenly with the movement of vehicles, as shown in **Fig. 7**. In view of this, all blocks should be of the same thickness, with a maximum allowable tolerance limit of ± 2 mm. Similarly, variations in length and width of blocks should be limited to ± 2 to ± 3 mm for ensuring uniform joint width and avoiding staggering effect.

4.4 Sand Bedding and Jointing

A layer of sand bedding is provided between block pavement and base/sub-base for the following reasons:

- (i) To provide a cushion between the hard base and the paving blocks.
- (ii) The base or sub-base will have some permitted surface unevenness. By providing a layer of sand bedding, the paved block can be levelled perfectly.

- (iii) The sand bed acts as a barrier and does not allow propagation of cracks from ed in base/sub-base.
- (iv) The sand also helpsto keep lower part of the joint filled with sand and provides added interlocking effect.

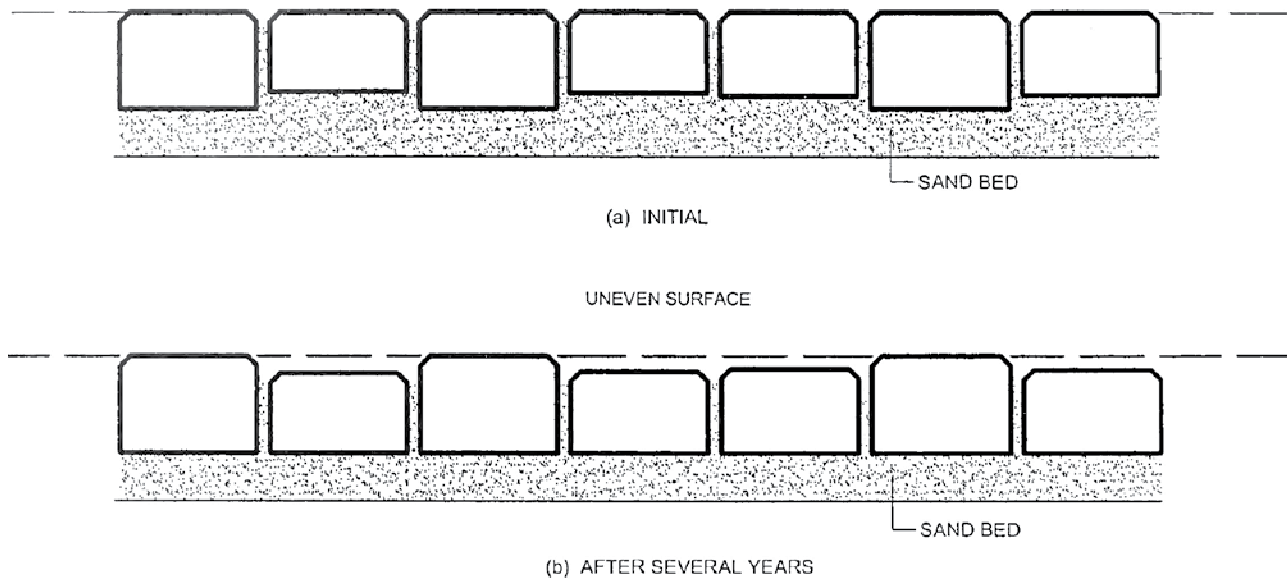


Fig.7EffectofThicknessVariationsinPavingBlocks

The sand bed should not be too thick lest it would be difficult to control the surface level of the blocks. A layer thickness of 30 ± 5 mm is found to be satisfactory.

For block pavement to perform satisfactorily, it is necessary that the lower layers are profiled to proper level and finish and that the bedding sand layer is of uniform thickness. Varying thickness of sand bed ultimately results in uneven surface of the pavement.

The grading and quality of sand is very important for the block pavement to perform satisfactorily. The sand used should be free from plastic clay and should be angular type. It should not be of degradable type for e.g., sand produced from limestone, etc. is likely to get powdered under the loading.

Joints between blocks are filled by fine sand. Normally, the bottom 20 to 30 mm of the joint gets filled with bedding sand, whereas, the remainder space has to be filled with jointing sand by brooming it from the top. The joints are normally 2-4 mm wide.

4.5 Base and Sub-base Layers

These layers are the important structural layers of a block pavement. The materials used for base construction consist of either bound material like lean concrete or soil-cement or bituminous layers or unbound materials like wet mix macadam or WBM. The sub-bases are generally of granular material. The sub-base can function as a drainage layer as well, provided

proper disposal arrangement for water is made. The base course layer is normally provided where heavy vehicular traffic is likely to ply on the pavement.

Besides intensity of loading, the type of soil encountered determines the type and thickness of base and sub-base. For weak subgrade soils like clays, where ground water table is shallow, bound bases are preferred.

4.6 Edge Restraint Blocks and Kerbs

Concrete blocks on trafficked pavement tend to move sideways and forward due to braking and manoeuvring of vehicles. The tendency to move sideways has to be counteracted at the edges by special edge blocks and kerbs. The edge blocks should be designed such that the rotation or displacement of blocks is resisted. These are to be made of concrete of high strength to withstand the traffic wheel loading without getting damaged. These members should be manufactured or constructed in-situ to have at least a 28 day compressive strength of 30 MPa or flexural strength of 3.8 MPa. As far as possible the edge blocks should have vertical face towards the inside blocks. A few typical edge blocks are also shown in **Fig. 8**.

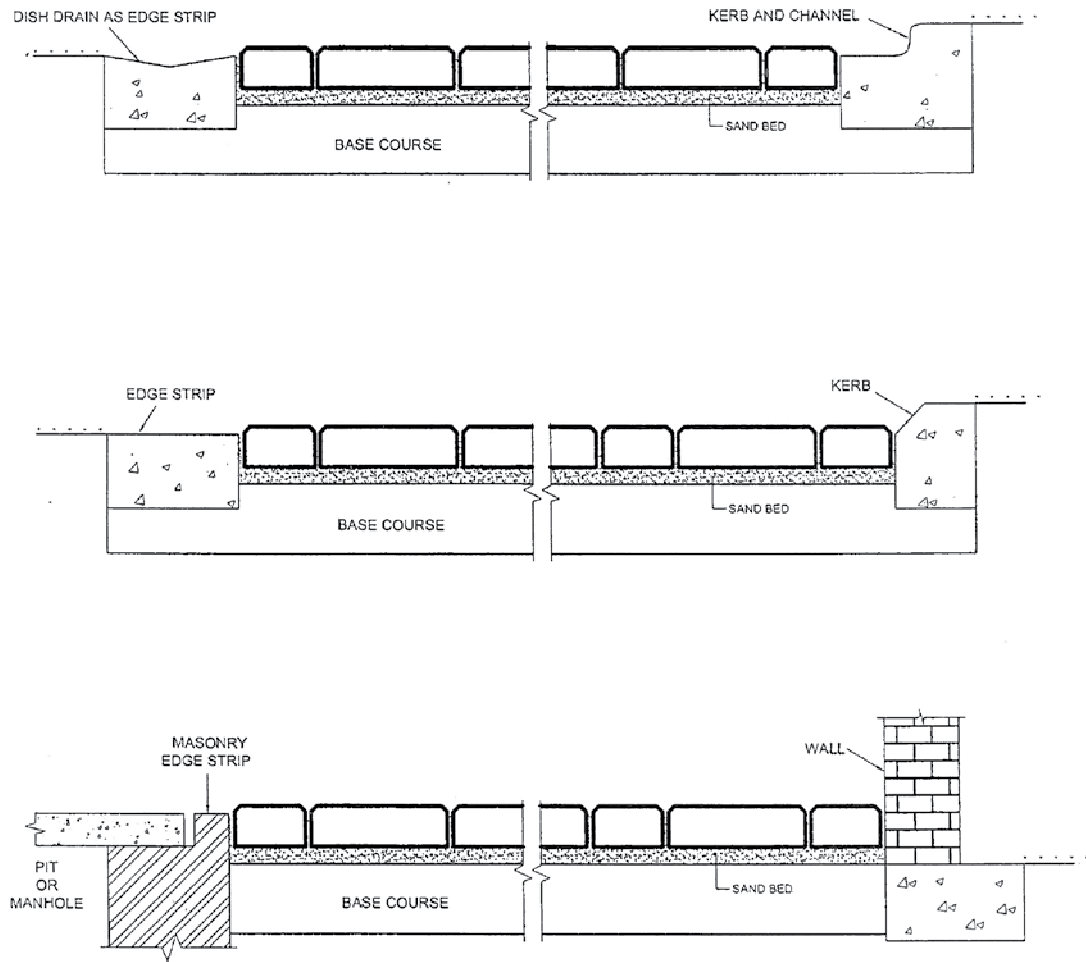


Fig.8 Edge Restraints

The road kerbs provided on the edge of the road also serve the purpose of edge blocks as shown in **Fig. 8**. In case the kerbs are not provided, it has to be replaced by edgestrips.

STRUCTURAL DESIGN OF CONCRETE BLOCK PAVEMENT

5.1 Suggested Design Procedure

It is recommended that the catalogue of design as given in **Table 1** may be used.

5.2 Lightly Trafficked Pavements

Pedestrian side-walks, footpaths, cycle tracks, car parks and malls are lightly trafficked. In such situations, the pavement can consist of blocks 60 mm thick laid over a sand bedding 30 ± 5 mm and a base course 200 mm thick. The base course can be in WBM/WMM/crushed stone/soil-cement. This design can be adopted for the range of subgrade soils met within India. A typical cross-section is given in **Fig. 5**.

5.3 Block Pavements Subjected to Commercial Traffic

City streets and highway (except National-Highways and Expressways) sections subjected to commercial traffic (trucks and buses) require a heavier section. Though design methods based on empirical approach and mechanistic behaviour are available, enough work has not been done in India to evolve the country's own design procedure. In the absence of such knowledge, the ad-hoc design catalogues based on international experience as given in **Table 1** are suggested for adoption. A design life of 20 years can be considered for determining the repetitions of standard axles.

5.4 For block pavements for industrial applications like container yard and port wharf and roads and warehouse the following thickness is recommended:

Block	100-120 mm
Sand Bedding	30 ± 5 mm
Cement bound base	300
mm Granular sub-base (out of which the bottom 150 mm is a drain age layer)	300 mm

6 MATERIALS

6.1 General

The quality of materials, cement concrete strength, durability and dimensional tolerances, etc. are of great importance for the satisfactory performance of block pavements. These aspects and the block manufacturing process itself, which immensely influences the quality of paving blocks, are broadly outlined in the subsequent paragraphs. The desired engineering properties of bedding/joint fillings and layer beneath the block, the base course and sub-base materials are also described.

Table 1 Design Catalogue for Pavement Thickness

Traffic and Road Type	Types of Layers	Subgrade CBR (%)	Grade of
			<u>Above 10</u>
• Cycle Tracks, Pedestrian Footpaths	Block Thickness Sand Bed Granulated Sub	Granular Sub-base	60mm 30±5mm 200mm
• Commercial Traffic Axle Load Repetitions less than 10 msa • Residential Streets	base Block Thickness Sand Bed WBM/WMM Base Granular Sub		60- 80mm 30±5mm 250mm
• Commercial traffic Axle Load Repetitions 10-20 msa • Collector Streets Industrial Streets, Bus and Truck Parking Areas	-base Block Thickness Sand Bed		200mm 80- 100mm 30±5mm
• Commercial traffic (Container yard and seaports) Axle Load Repetitions 20-50 msa	WBM/WMM Base Granular Sub-base		250mm 200mm 100-120 30±5 mm
• Arterial Streets	Block Thickness Sand Bed WBM/WMM Base or WBM/WMM Base and DL Coverit*		250mm 150mm 100mm 200mm

<u>5-10</u>	<u>Block</u>
60mm	
30±5mm	M-30
200mm	
60-80mm	
30±5mm	M-40
250mm	
250mm	
80-100mm	
30±5mm	M-40
250mm	
250mm	
100-120	
30±5 mm	
250mm	M-50
150mm	
100mm	
250mm	

- Notes:**
1. Thickness of layers given above are in mm.
 2. Granular sub-bases should have at least 150mm layer at the bottom.
 3. A typical cross-section is given in Fig. 5 and Fig. 6.
 4. If the subgrade soil has a CBR of less than 5%, it should be improved by suitable stabilization technique to bring the CBR value to 5%.

5. msadenotesrepetitionsinmillionstandardaxles
 *incaseofroadshavinginadequatedrainageorheavyrainfallareas(above1500mmp
 erannum)

6.2 Salient Mix Design Aspects

Thecommonlyusedprocessesforthemanufactureofpre-castcementconcretepavingunitsrequiredry,low-slumpmixes.Thedesiredcharacteristicsofthemixareasunder:

Water/cement ratio	0.34 to 0.38
Water content of the mix	5 to 7% by weight of total mix
Quantity of cement in mix	Generally not less than 380 kg/m ³ depending on the equipment being used for block making. Upper limit of cement shall not be more than 450 kg/m ³ . Flyash also can be used in the mix, replacing Ordinary Portland Cement to an extent of 35 percent by weight of cementitious material. The
Aggregate/cement ratio	above values are for general guidance only. The actual mix design has to be made to suit each individual requirement. 3:1 to 6:1
Aggregate	Aggregate should conform to IS: 383. The proportion of coarse aggregate in the mix is typically 40 percent and the fine aggregate (sand) 60 per cent. The size of coarse aggregates should lie between 6 mm and 12 mm and the gradations should be in the recommended range for cement concrete mixes in general.
Strength	In general terms, the paving block must have adequate strength to withstand handling, construction stresses and effects of traffic. It is suggested that the minimum compressive strength of a single block should be above 30 MPa and blocks of compressive strength of 40 MPa for commercial traffic.
Abrasion Resistance	of less than 20 msa and 50 MPa for commercial traffic more than 20 msa. Abrasion Resistance test shall be performed with rolling disc machine as per ASTM C779 procure-A.

The depth of wear after 60 minutes should not be more than 1.5 mm in case of M-30 Grade blocks, 1.25 mm in case of M-40 Grade blocks and 1 mm in case of M-50 Grade blocks.

Addition of Pigments	To provide the desired colour to paving blocks, appropriate type and amount of pigments are added during mixing, in the form of powder or slurry. Although organic pigments render brighter colours than inorganic pigments, the former are adversely affected by the alkaline environment of concrete and do deteriorate with time. Inorganic pigments, mostly metal oxides, are more durable and hence preferred for consistency and purity. Saturation of colour takes place with a pigment volume of around 5 to 9 percent of cement content. Pigments should be finer than cement (fineness value between 2 and 15 m²/gm). For the same slump, addition of pigments requires increase in mixing water, which in some cases may lead to lowering of flexural and compressive strength of concrete; therefore, suitable adjustments in mix proportions may become necessary. Under special circumstances, super-plasticizers at around 0.4 per cent of cement by weight, may be added for better workability. Water repellent admixtures of calcium stearate are sometimes used to reduce water absorption. Air entraining agents, when added to the mix, cause some reduction in the needed amount of cement. Further reduction is achieved by substituting part of the cement with blast-furnace slag (50%) or pozzolanas like flyash (35%); besides reducing cost, these also control "efflorescence" (surface deposition of salts as a result of water movement upwards).
Other Additives	

6.3 Manufacture of Paving Blocks

The method of manufacture of paving blocks has an important bearing on the quality, durability and level of finish-dimensional tolerance, etc. all of which reflect on the ultimate performance of the block pavement during service. At the very outset, therefore, it is to be

emphasized that hand-casted concrete blocks are unacceptable for use and that an appropriate plant with high frequency hydraulic press machine should be used. It would make it possible to apply high pressure together with controlled vibration. Adaptation of production facilities designed for high quality hollow masonry blocks, though feasible, is not as economical and as efficient as the use of purpose designed machinery for paving block manufacture. Essentially, the manufacturing process involves compacting concrete, in a steel mould clamped to a vibrating table, by hydraulic pressure.

Concrete is fed into the mould from a hopper by a drawer - if a second hopper is added, a block can be made of two kinds of concrete having "backing" and "facing" surfaces. In the "facing" of the block, the top 5mm has greater amount of cement and sand to make it more durable and skid resistant, and extra pigment is added for the coloured face - a vis-à-vis the rest of the block. In the first stage of compaction, pre-vibration is effected by running the vibrators

attached to the vibratory table, the frequency generally being in the range of 50 to 100 Hz. In the second stage of compaction, compression pressure is applied to the tamper heads, also fitted with vibrators for a high level of surface finish. Blocks are extruded from mould by forcing down the tamper heads, after the vibrating table is disengaged from the mould. The blocks thus prepared are stacked either in a single layer or multiple layers for curing.

6.4 Dimensional and other Requirements of Paving Blocks

For normal paving work, the length of a paving block should ordinarily be not greater than twice the mean width; the thickness is a minimum of 60 mm; the maximum length generally not exceeding 280 mm; the width generally is in the range 75 to 140 mm with a chamfer in the range 3-5 mm. The sides of the blocks should be perpendicular.

To the top and bottom faces except that the top edge may be chamfered. The blocks should have the following dimensional tolerances:

Plan dimensions $\pm$ 2
mm Thickness $\pm$
2mm

To ensure durability, the average water absorption in a block should not exceed 5 per cent; and for cold regions in a standard freeze-thaw durability test, the weight loss should not exceed 1 per cent.

In situations, where parts of blocks are to be used e.g., around manholes, the blocks should be purpose-cut at site.

It is to be recognized that variations in the thickness of blocks used for a paving job can be a major cause for the loss of surface profile, as shown in **Fig. 7** on an exaggerated scale. In the interest of maintaining a good surface profile, the block thickness should be controlled carefully; this can be done to advantage by adopting multi-layer method of manufacture of paving blocks, which reduces the variation in block thickness.

Annexure gives suggested technical specifications for laying block pavements.

6.5 Bedding and Joint Filling Sand

6.5.1 *Bedding sand*

It is well established that if proper attention is not paid to the quality of bedding sand, and if the thickness of the bedding sand layer is not uniform enough, serious irregularities in surface profile can result; excessive differential deformation and rutting can occur early in service life of the block pavement. The desired gradation of bedding sands should be as per **Annexure I**.

Care should be taken to see that single-sized or gap graded sands or sands with excessive amount of fines or plastic fines should not be used. The shape of sand particles should preferably be sharp rather than rounded, since the sharp sands possess higher strength and resist the migration of sand from under the block to less frequently trafficked areas. Even

though sharp sands are relatively more difficult to compact than rounded sands, the use of sharp sands should be preferred for the more heavily trafficked pavements. The bedding sand should be free of deleterious materials.

6.5.2 *Joint filling sand*

The gaps in between two paving blocks (typically about 2-3 mm wide) need to be filled by sand, relatively finer than the bedding sand. The desired gradation for the joint filling sand is as under:

<u>IS Sieve Size</u>	<u>Percent Passing</u>
2.36mm	100
1.18mm	90-100
600micron	60-90
300micron	30-60
150micron	15-30
75micron	0-10

It is necessary to restrict the fines (silt and/or clay) to 10 percent, since excessive fine sand makes joint filling very difficult. Similarly, it is not advisable to use cement in the joint filling sand which will not only make it difficult to completely fill the joints but would also adversely affect the desired flexibility characteristics of the paving block layer. The joint filling sand should be as dry as possible; otherwise complete filling of joints will be difficult. To overcome the problem of efflorescence on the surface of paving block layer, the joint filling sand should be washed to remove soluble salts.

6.6 Base Layer

The engineering properties of base layer, which include load spreading properties or reduce stresses on the subgrade and desired drainage characteristics, have an important bearing on the performance of a block pavement. Although, local availability and economics generally dictate the choice of base material at the design stage, the commonly used materials considered suitable for base courses are unbound crushed rock, water-bound macadam, wet mix macadam, cement bound crushed rock/granular materials, and lean cement concrete. For heavy duty block pavement, lean concrete base must be provided.

In broad terms, wherever the subgrade is weak (having a CBR value below 5) use of bound granular materials, like, cement treated crushed rock, requiring a relatively thinner base, should be preferred while for high strength subgrades, unbound crushed rock can be used. The climatic and environmental factors also need to be considered during the choice of base material.

6.7 Sub-base Layer

Generally, a sub-base is warranted where commercial traffic is expected. The quality of sub-base material is inferior to the base materials and includes natural gravels, cement treated

gravelsandsandsandstabilizedsubgradematerials. The quality of sub-basematerials should be in conformance with IRC:37 or MoRTH Specifications.

7 DRAINAGE

Block pavement with joints filled with sand is not a waterproof layer and hence care has to be taken to drain out the surface water seeping through the joints in initial stage of the construction. This water can find way to sand bed below, base, sub-base and subgrade layers. Unless these layers are free draining, appropriate drainage arrangement has to be provided. The drainage provided generally consists of subsurface drains surrounded by filter material or a geotextile/geocomposite, which would allow the water to pass through and at the same time prevent the escape of bedding jointing sand. Typical subsurface drainage arrangement used in block pavement is shown in **Figs. 9, 10 and 11**. It is a drainage system with pervious concrete provided below the sand bed. The water collected is to be taken through 80mm diameter perforated pipe.

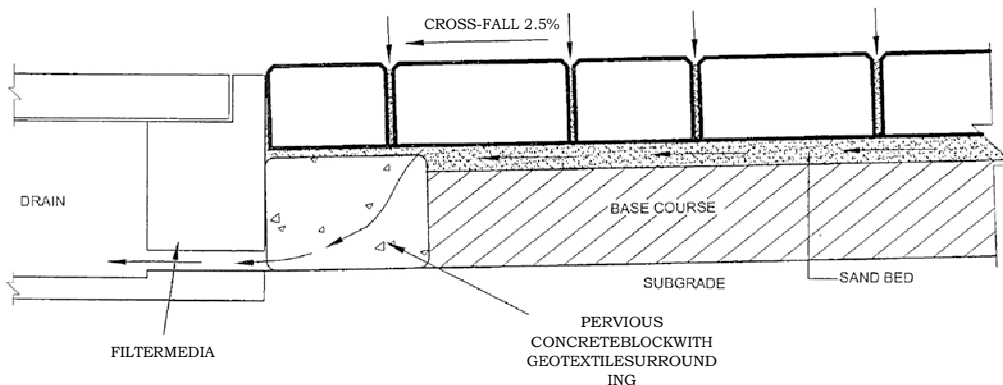
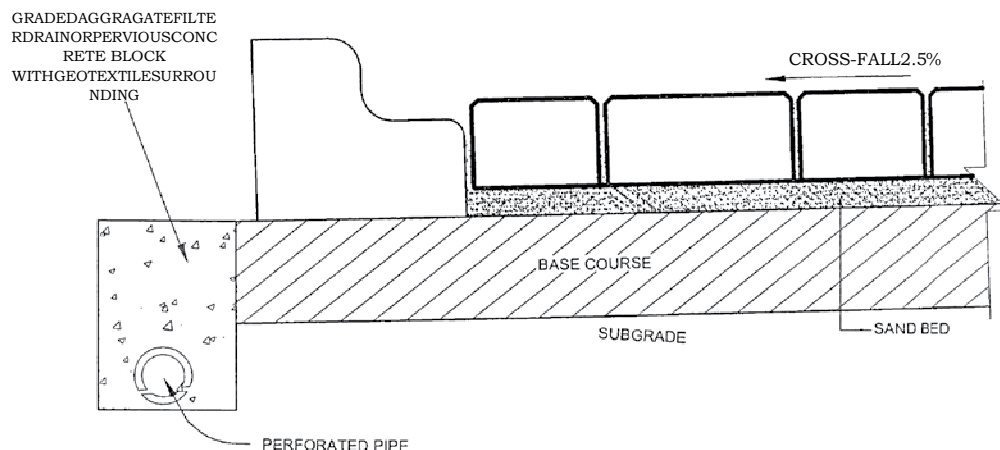


Fig. 9 Sub Surface Drainage in a Block Pavement



Contractor

Fig.10SubSurfaceDrainageinaBlockPavement

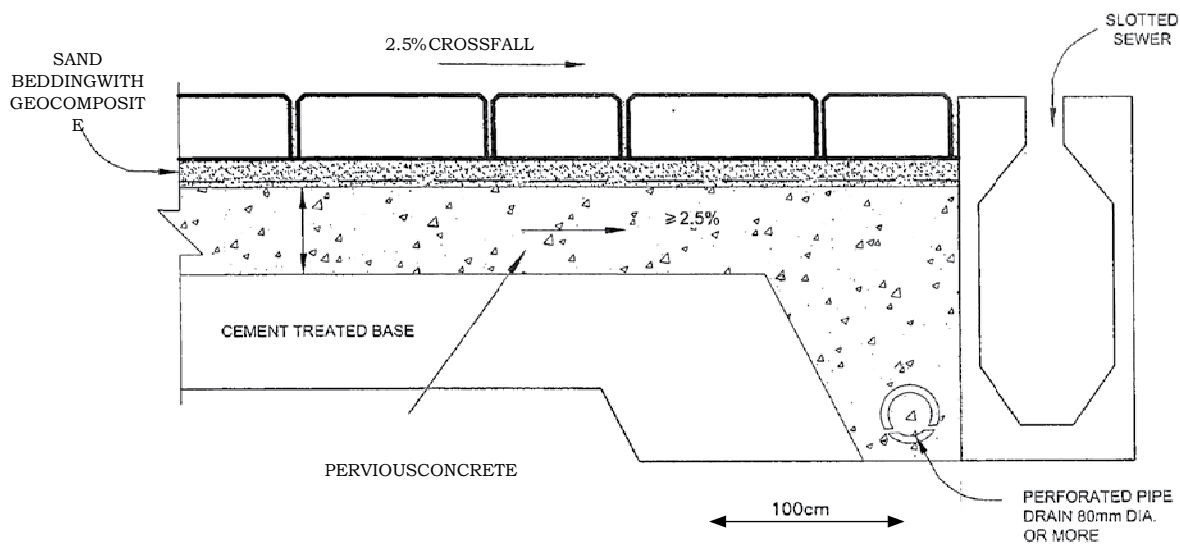


Fig. 11 Heavy Trafficked Concrete Block Pavement Structure with a Base Course of Pervious Concrete for Drainage

A crossfall of 2.5 percent slope is generally sufficient to drain the surface runoff. The block pavements should be at least 5mm above the manholes, side drains, etc:

8 CONSTRUCTION

8.1 General

The construction of block pavement involves preparation of subgrade, sub-base and basecourse layers, bedding sand and finally the laying of blocks. The block paving can be done entirely by manual labour. However, for efficient construction work, the workforce has to be properly trained for this specialised job. Paving can also be done by mechanical means. Technical specifications for laying concrete paving blocks is given in **Annexure-I** and specification for controlled low strength material for repair work is given in **Annexure-II**.

8.2 Preparation of Subgrade

This is the foundation layer on which the block pavement is constructed. Like in conventional pavements the water table should be at a minimum depth of 600

mm below the subgrade. Subgrade should be compacted in layers of 150 or 100 mm thickness as per IRC:36/MORTH Specifications.

8.3 Base and Sub-base Course

Base and sub-base courses are constructed in accordance with standard procedures as per MORTH Specifications.

When cement bound base are proposed it may be constructed using dry lean concrete as per IRC:SP:49. The quality controls specified in IRC:SP:112 shall apply, in case of repair work where compaction is not possible CLSM may be used as under.

- | | | |
|------|--------------------------------|-------|
| i. | For footpaths and cycle tracks | 2 MPa |
| ii. | For cars and light vehicles | 4 MPa |
| iii. | For heavy vehicles | 6 MPa |

Constructing the layers to proper level and grade is very essential to maintain the level and surface regularity of the block pavement. In small widths where compaction of GSB, WBM, and WMM may not be done adequately it is recommended that 75 mm to 100 mm thick DLC be provided over these granular layers to maintain the level and surface regularity.

8.4 Placing and Screeding of Bedding Sand

The thickness of the sand bed after compaction should be in the range of 30 ± 5 mm, whereas, in the loose form it can be 30 to 50 mm. It is preferable to restrict the 'compacted thickness to 30 ± 5 mm to reduce the risk of any localized precompaction, which would affect the final block surface level. Bedding sand should not be used to fill up local depressions on the surface of a base or sub-base. The depressions should be repaired in advance before placing sand.

Sand to be used should be uniformly in loose condition and should have a uniform moisture content. Best moisture content is that when sand is neither too wet nor too dry and have a value of 6 to 8 percent. Requirement of sand for a day's work should be prepared and stored in advance and covered with tarpaulin or polythene sheets.

The processed sand is spread with the help of screed boards to the required thickness. The screed boards are provided with nails at 2-3 m apart which when dragged gives the desired thickness. The length of nail should take into account the surcharge to be provided in the uncompacted thickness. Alternatively, the screed can be dragged on edge strips kept on both sides as guide. Asphalt paver can be employed in large projects. The sand is subsequently compacted with plate vibrators weighing 0.6 tonnes or more. Level checks shall be carried out on a grid pattern to establish that the desired level is achieved. Local correction can be done either by removing or adding extra sand followed by levelling and compacting.

gthelayer. There will be some settlement of sand after the blocks are placed and compacted, which must be allowed for, while fixing the level of sand bed.

The effect of undulating surface of base or sub-base on the profile of block pavement is explained in **Fig. 12**. The blocks will settle after trafficking in such a manner that the surface profile becomes parallel to base/sub-base profile. Sand bed assumes uniform thickness under moving loads.

8.5 Laying of Blocks

Blocks can be laid generally by manual labour but mechanical aids like hand-pushed trolleys can expedite the work.

Normally, laying should commence from the edge strip and proceed towards the inner side. When dentated blocks are used, the laying done at two fronts will create problem for matching joints in the middle. Hence, as far as possible, laying should proceed in one direction only, along the entire width of the area to be paved.

While locating the starting line, the following should be considered:

On a sloping site, start from the lowest point and proceed uphill on a continuous basis, to avoid downhill creep in incomplete areas.

In case of irregular shaped edgerestraints or strip, it is better to start from straight string line as shown in **Fig. 13**.

Influence of alignment of edgerestraints on achieving and maintaining laying bond.

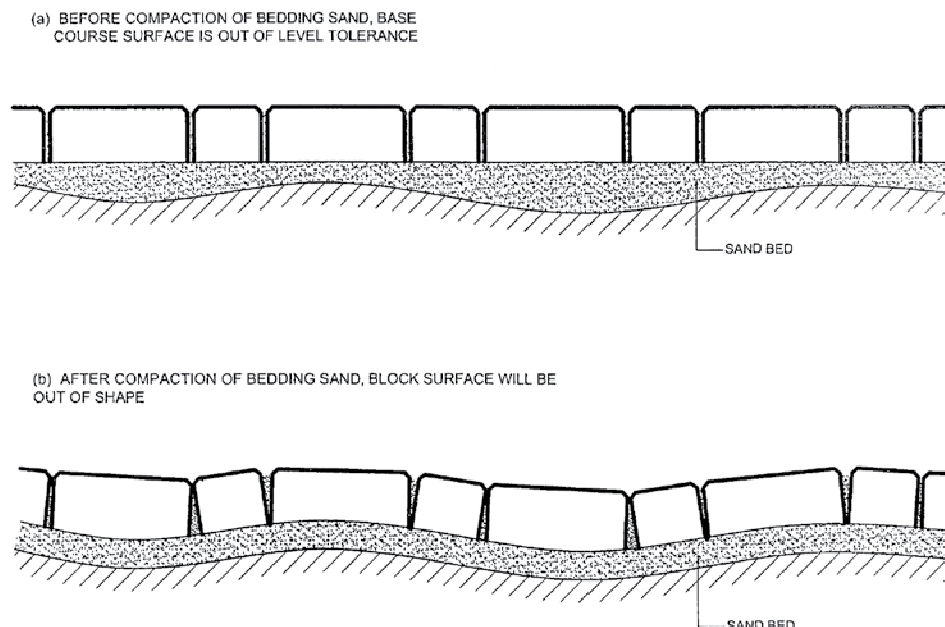


Fig. 12 Effect of Base-Course Surface Shape on Bedding Sand and Block Surface Shape

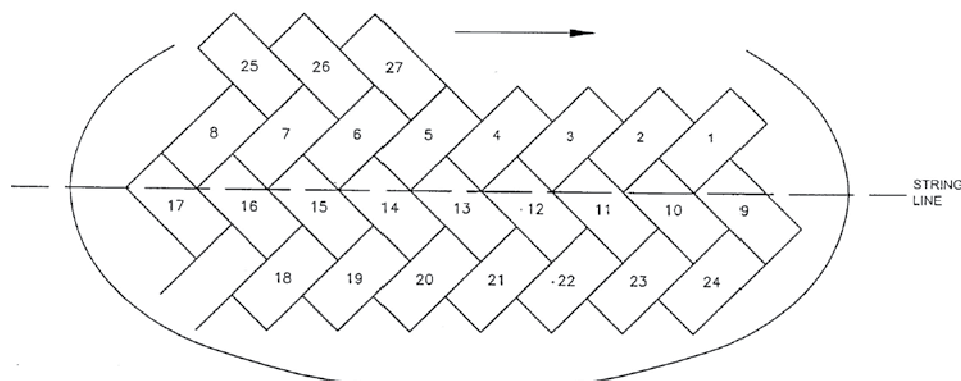


Fig. 13 Starting at Irregular Shaped Edge Restraint

8.6 Bonds or Patterns of Laying Blocks

The blocks can be placed to different bonds or patterns depending upon choice. Some popular bonds commonly adopted for block paving are:

- (i) Stretcher or running bond
- (ii) Herringbone bond
- (iii) Basketweave or parquet bond

The typical layout of these bonds are given in **Fig. 14**.

8.7 Establishing the Laying Pattern

In relation to the starting line, the blocks should be placed at the correct angle to achieve the final orientation as required by the laying pattern. If the edger restraint is straight and suitably oriented, the first row of blocks can abut it. For irregular-shaped and unfavourably oriented edger restraints, a string line should be established a few rows away to position the first row.

With the help of gauges, the joint width specification (2 to 3 mm) should be checked in the first few square metres, where it should be ensured that the block alignment is correct. The laying patterns and face should be established (**Fig. 15**) to permit fast and easy laying without the necessity of forcing a block between previously positioned blocks. To start with, full blocks should be used; only subsequently, cutting and in-filling at edges be permitted. Under no circumstances should the blocks be forced or hammered into the beddings and at this stage of laying. For cutting paving blocks, hydraulic or mechanical block cutters, or power saws are used. Cut units less than 50 mm minimum dimension should not be used, as these are difficult to cut accurately and can be dislodged under traffic. Where space does not permit use of a larger segment, use premixed concrete or sand-cement mortar instead.

The control over alignment, laying pattern and joint widths can be maintained by the use of chalked string lines, at about 5 m intervals.

8.8 Methods of Construction of Block Pavement

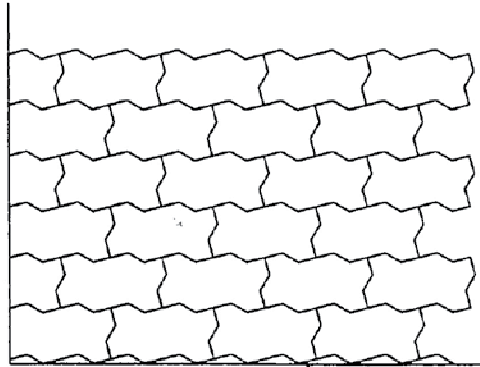
8.8.1 *Manual methods*

In the traditional manual method, the sand is roughly screeded and a skilled worker (called a pavior) levels the sand and then embeds the block using a hammer; he works backwards so as to have a continuous view of the completed pavement in

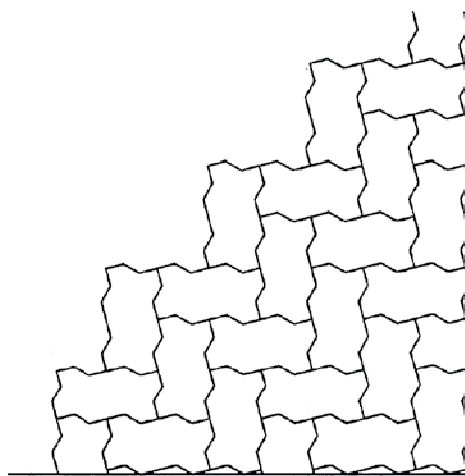
order to obtain a good finish.
A pavior, along with an assistant, can lay 50 to 75 m² of paving per day.

An alternative to the above method, the block layers (generally unskilled labourers) work on the completed surface, moving forward.

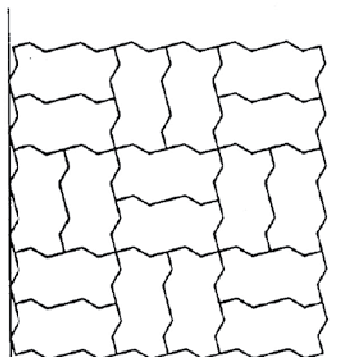
For optimum output, it is advantageous to select an easy fitting block shape, with the desirable size being that which can be easily accommodated in the worker's hand; in addition, the blocks should be chamfered for easy handling and their weight should preferably be less than 4 kg.



(a). STRETCHER BOND OR RUNNING BOND



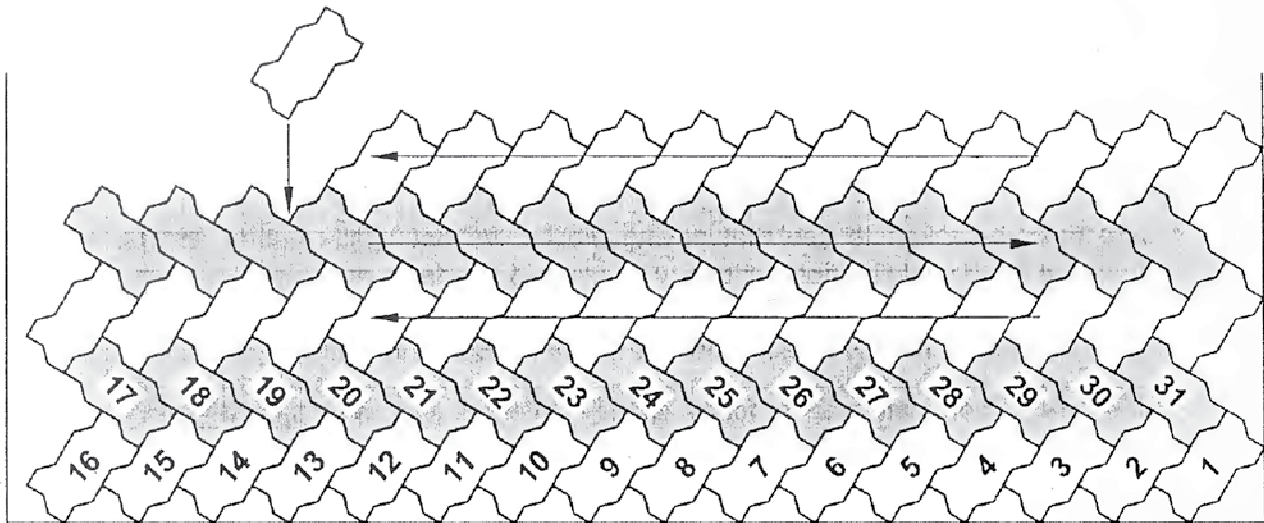
(b). HERRINGBONE BOND



(c). BASKET WEAVE OR PARQUET BOND

Fig.14 Typical Bond or Laying Pattern of Bond

(A) AXIS OF UNITS NOT PARALLEL TO EDGE RESTRAINTS
-ONLY ONE OPERATOR CAN WORK ON THE LAYING FACE



(B) AXIS OF UNITS PARALLEL TO EDGE RESTRAINTS -MORE
THAN ONE OPERATOR MAY WORK ON THE LAYING FACE

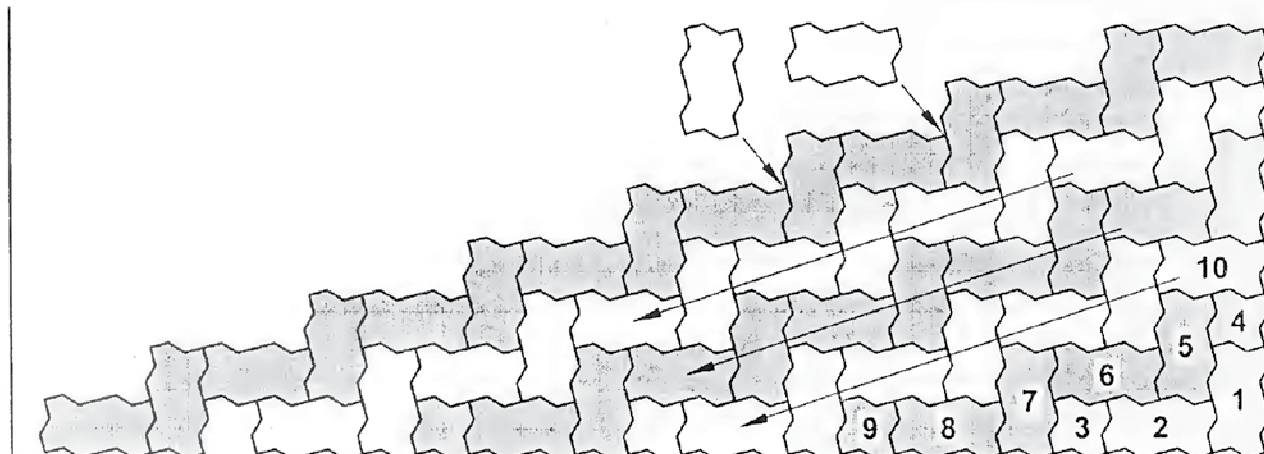


Fig.15 Establishing Laying Face for Blocks in Herringbone Bond

The output of finished pavement varies widely with training of workmen, over a wide range from a low of 20 to a high of 120 m²/man-day. The higher outputs being for industrial hardstandings where intrusion like manholes, etc. are minimal. To keep up the speed of work, it is important to maintain an adequate supply of paving blocks to the laying site for manual paving. Ordinarily, hand pushed trolleys are adequate for the purpose, but for large projects employing a number of laying teams, use of powered trolleys is preferable.

Care must be taken to see that paving blocks are not tightly butted against each other, otherwise there could be non-uniformity in the laying patterns and the blocks may spall or even crack. Joint widths of 2 to 3 mm can be maintained if, when laying a paving unit, it is held lightly against the face of an adjacent laid unit and allowed to vertically slide in to position.

Since each workman may produce slightly different joint widths, it is desirable to rotate workmen along the workface, and also periodically interchange the personnel laying and transporting blocks.

The average joint width can be measured and checked, by determining statistically the representative values of average length and breadth of blocks at the project site and then obtaining average distance between joints, say 40 blocks apart; or it can be done by measuring joint widths directly, using a calibrated, hardened steel mandrel which is forced into joints at a series of randomly selected locations, to obtain a statistically representative figure.

8.8.2 *Mechanised methods*

Mechanised laying requires the use of specialised equipment for transporting and placing clusters of paving blocks. The size of paving block cluster suitable for paving, is usually 0.3 to 0.5 m² in area for hand-operated equipment. For fully mechanised equipment, the cluster surface area can be up to about 1.2 m². These clusters are designed to maintain a joint space of about 3 mm between blocks, when clamped together (**Fig. 16**).

Since the blocks are placed in separate clusters, there exists the possibility of damage if joints between adjacent clusters run uninterrupted throughout the pavement. To overcome this problem, clusters may be arranged so that the joints are periodically staggered both along and across the cluster axis or link blocks are installed by hand across these joints (**Fig. 17**).

Mechanised laying must be coordinated with the manufacturer, so that the blocks are redelivered stacked on pallets in the required pattern; in some cases, spacing ribs may be cast on the sides of blocks to preserve the required joint spacing.

8.8.3 *Compaction*

For compaction of the bedding sand and the blocks laid over it, vibratory plate compactors are used over the laid paving units; at least two passes of the vibratory plate compactor are needed. Such vibratory compactions should be continued till the top of each paving block is level with its adjacent blocks. It is not good practice to leave compaction till end of the day, as some blocks may move under construction traffic, resulting in the widening of joints and corner contact of blocks, which may cause spalling or cracking of blocks. There should

be minimal delay in compaction after laying of the paving blocks to achieve uniformity of compaction and retention of the pattern of laying; however, compaction should not proceed closer than 1m from the laying face, except after completion of the pavement.

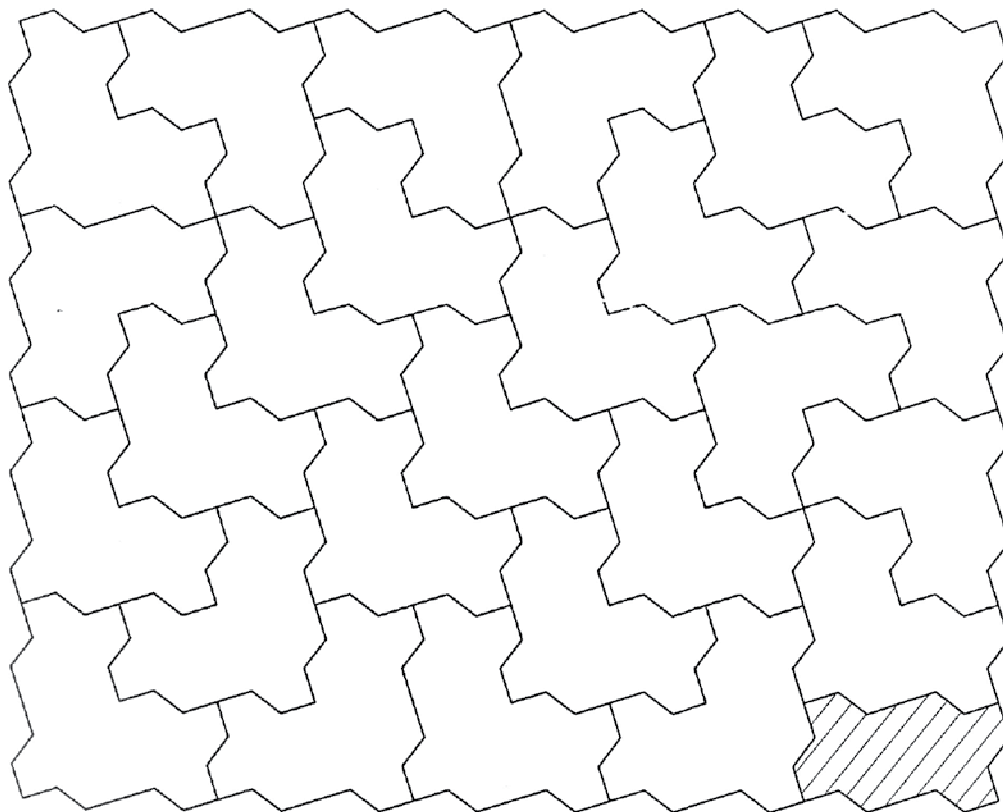
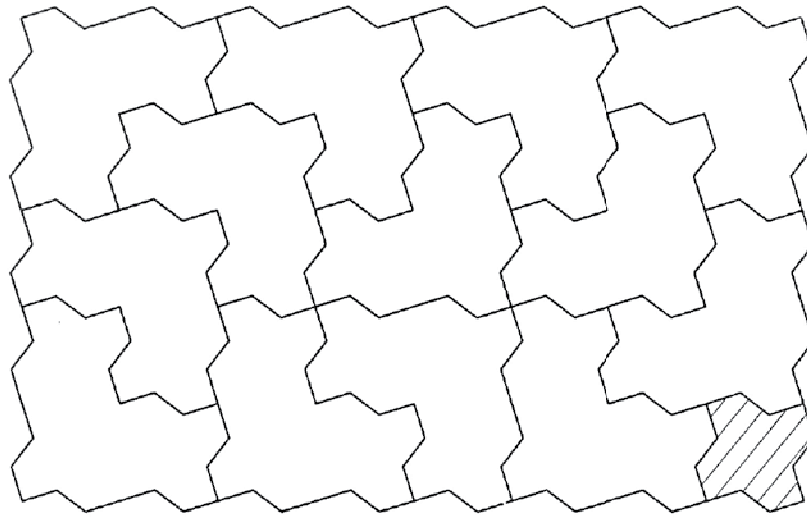


Fig.16 Typical Block Cluster in Mechanised Laying

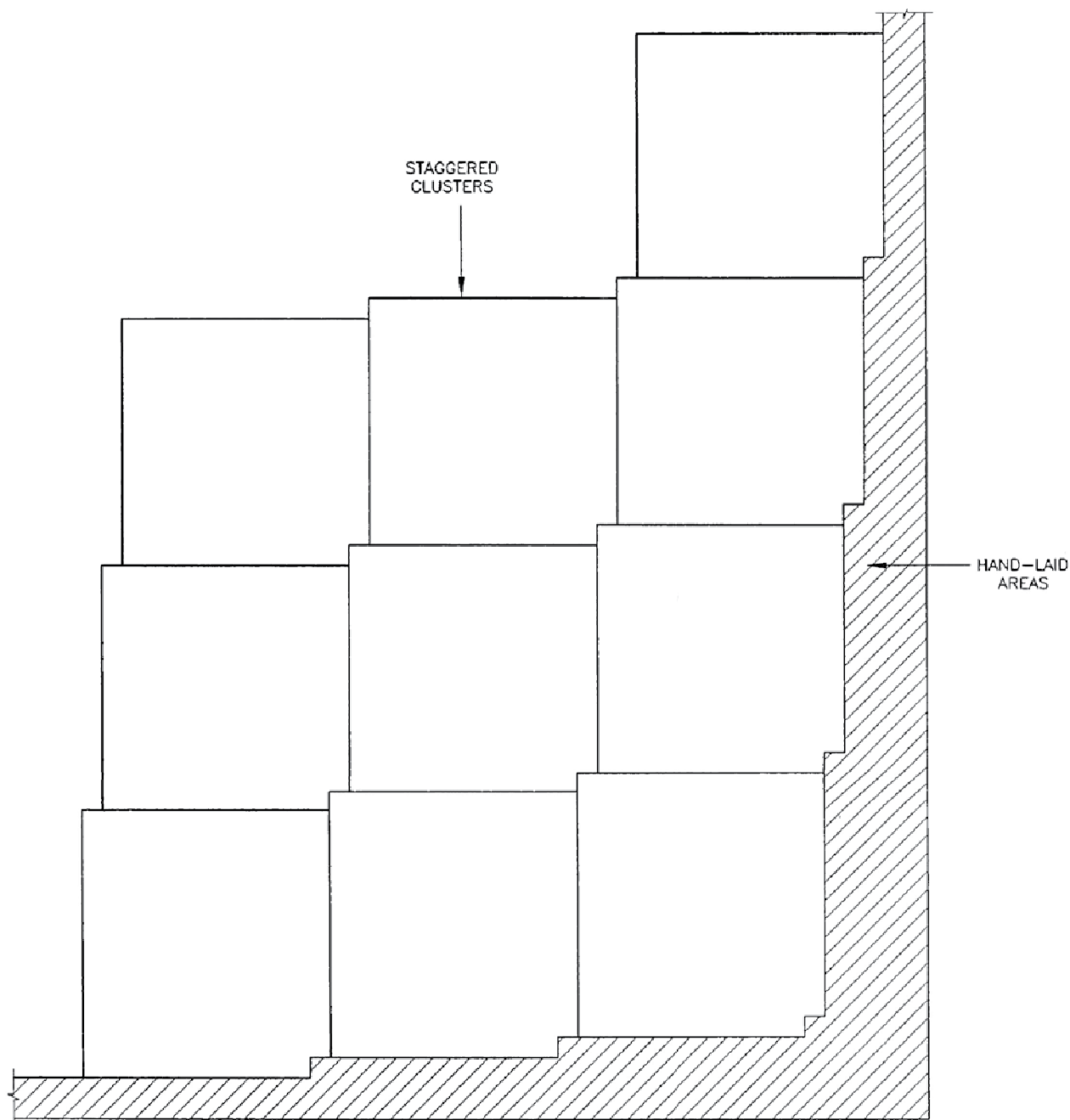


Fig.17 Staggered Installation of Block Clusters

During vibratory compaction of the laid blocks, some amount of bedding sand will work its way into the joints between them. The extent of sand getting worked up into the joints will depend on the degree of pre-compaction of sand and the force applied by the block compactor. Standard compactors may have a weight of about 90 kg, plate area of about 0.3 m² and apply a centrifugal force of about 15 kN, while heavy duty compactors may weigh 300-600 kg, have a plate area of about 0.5-0.6 m²

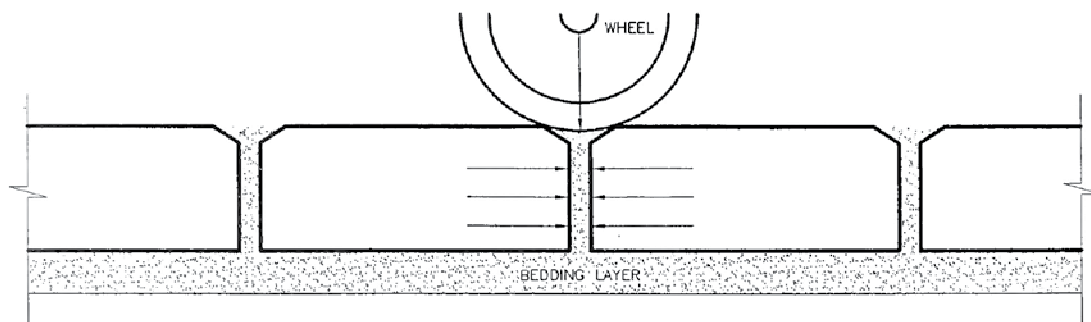
and apply a centrifugal force of 30-65 kN. Where the bedding sand has been pre-compacted and for heavily trafficked block pavements, heavy

duty compactor should be used. After compaction by vibratory plate compactors, some 2 to 6 passes of a vibratory roller (with rubber coated drums or those of static weight less than 4 tonnes and nominal amplitude of not more than 0.4 mm) will further help in compaction of bedding sand and joint filling.

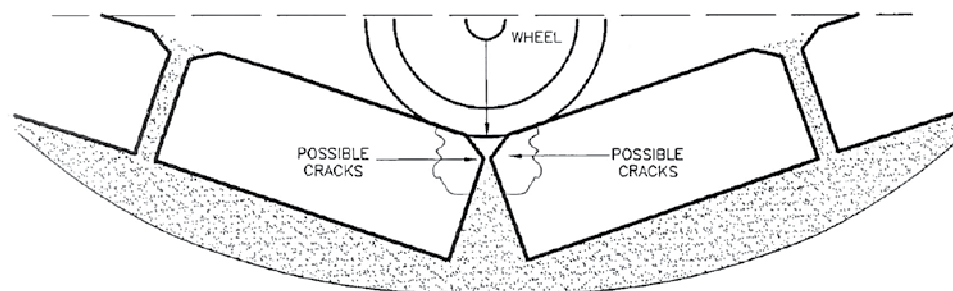
8.8.4 Joint filling

The importance of complete joint filling cannot be over-emphasised. Unfilled or partially filled joints allow blocks to deflect, leading to loose blocks, possibly spalling the edges and a locally disturbing bedding sand layer, as shown in **Fig. 18**.

After the compaction of the bedding sand has been completed and some bedding sand has been forced up in the joints between blocks, the joints should be completely filled with sand meeting the desired specifications, as given in Section 6. The joint filling sand should be stockpiled at suitable locations for convenience. There should be minimum delay in joint filling; the process should in any case, be completed by the end of the day's work.



(A) SAND-FILLED JOINT SPREADS WHEEL LOAD



(B) UNFILLED JOINT ALLOWS BLOCK TO DEFLECT LEADING TO LOOSE BLOCKS WITH POSSIBLE CRACKS

Fig.18NeedforCompleteFillingofJoints

The operation of joint filling comprises of spreading a thin layer of the joint filling sand on the block surface and working the sand into each joint by brooming. Following this, a few passes of heavy plate compactor are applied to facilitate fine sand to fill the joints. The sand should be broomed or spread over the surface with a small surcharge.

Dry sand and dry blocks are best for the filling of joint, as damp sand tends to stick at the very top of the joints; also, if the block is wet and the sand dry, the sand will again stick at the joint top. Hence, if either the blocks or sand are wet, one may get a false impression of the joints being full, but the next rain will reveal that they are actually hollow. If the weather does not allow sand and blocks to be dry, the joint filling sand should be washed in by light sprinkling of water. In this case, several cycles of application of sand, water-sprinkling and plate compaction will be necessary to completely fill the joints.

8.8.5 *Opening to traffic*

Until all the joints are completely filled, no traffic should be permitted over the block pavement. In case of lime or cement treated layers in the pavement, it must be ensured that these are given at least 14 and 7 days respectively to cure, before traffic is permitted. The block pavement should be inspected frequently, to ensure that any incompletely filled joints, exposed by traffic and/or weather are promptly filled. Such frequent inspection should be continued till dust and detritus from the roadway tighten the surface of the joints.

8.8.6 *Laying and Surface Tolerances*

While laying the surface tolerances, given below may be observed:

Layer/Item	Tolerance
Subgrade	+0, -25 mm of nominated level
Select subgrade/Sub-base	-0, -20 mm of nominated level
Base Course	-0, +10 mm of nominated level
	10 mm deviation from a 3 m straight edge
Plan deviation from any 3 m line from any 10 m line	Vertical deviation from 3 m line at kerbs intrusions, channels, edge restraints elsewhere Maximum difference in surface level between adjacent paving units

Deviation of finished surface level from designated level	10mm (maximum)
Joint width	20mm (maximum)
Range	+3 mm, -0 mm
Percentage of joints outside range	+5 mm, -5 mm
Nominal joint width	+5 mm, -5 mm
Final finished surface with 3m straight edge	+10 mm, -15 mm
	2 mm to 3mm
	10% max. along 10m line
	3 mm
	± 3mm

8.8.7 Detailing block pavements

Essentially, there are three important aspects in detailing. These are

- (i) Curves
- (ii) Treatment of intrusions
- (iii) Changes in alignment

8.8.7.1 Curves

It is necessary to cut the paving unit to fit the edge restraints. Rectangular blocks of a similar or contrasting colour as an edging have been used to minimise the visual effects of small errors in block cutting. To avoid unsightly and potentially weak construction joints, it is often preferable to change the laying pattern at the curve. For example, as shown in **Fig. 19**, the curve itself can be installed in herringbone bond and yet the pavement can revert to stretcher bond on the approaches.

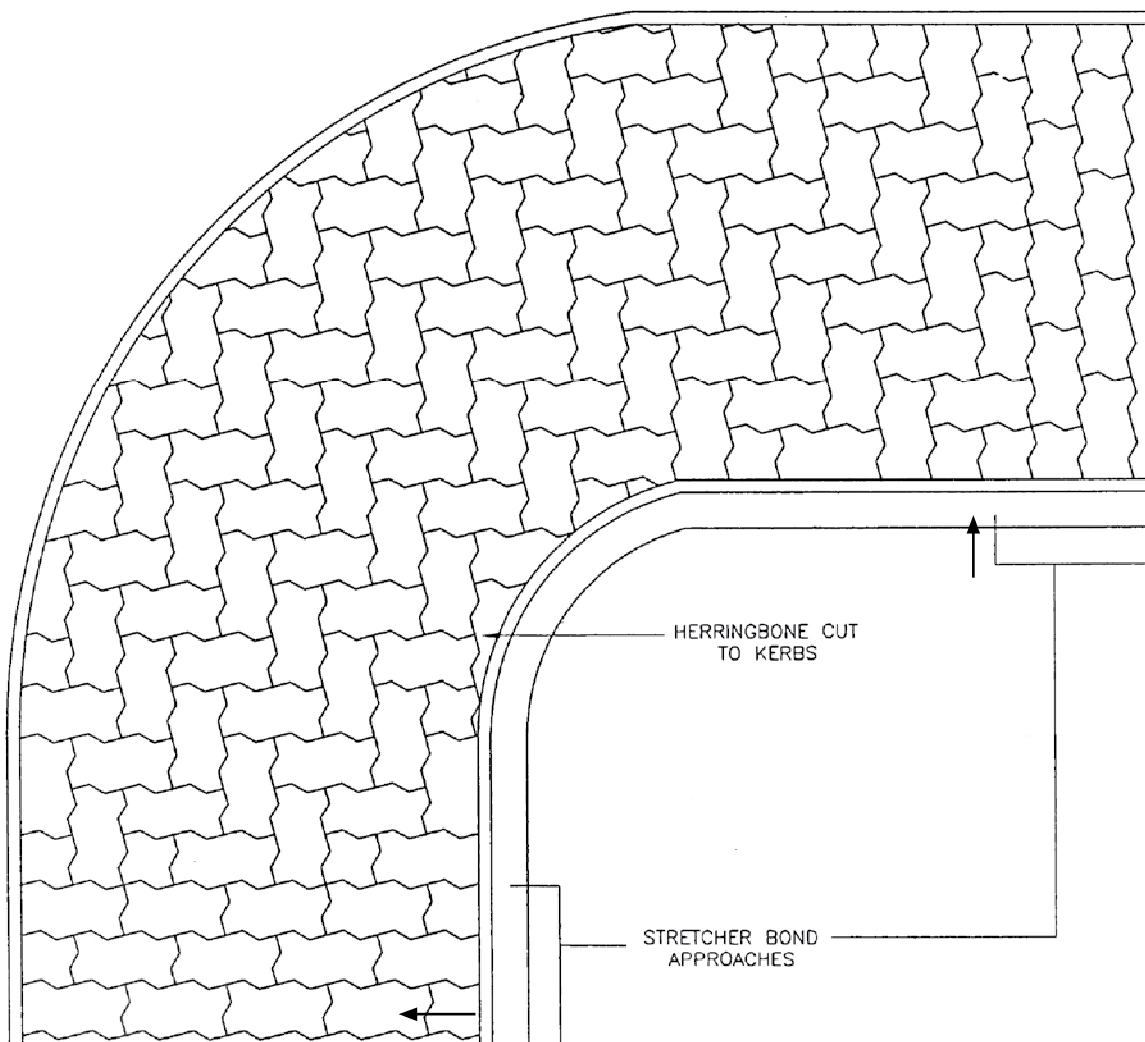


Fig.19.CurveinHerringboneBondandApproachesinStretcherBond

8.8.7.2 Pavement intrusions

On some pavements, like in city streets, there could be several intrusions, like, manholes, drainage gulleys, etc. Where meeting these intrusions with the pavement is desirable. **Fig.20** shows how this should be done around a manhole.

Around intrusions, it is good practice to lay along both sides of the intrusion simultaneously so that closure is made away from the starting workface, rather than carrying the pavement around the intrusion to return to the original laying face (**Fig. 20**) to avoid accumulation of closing error.

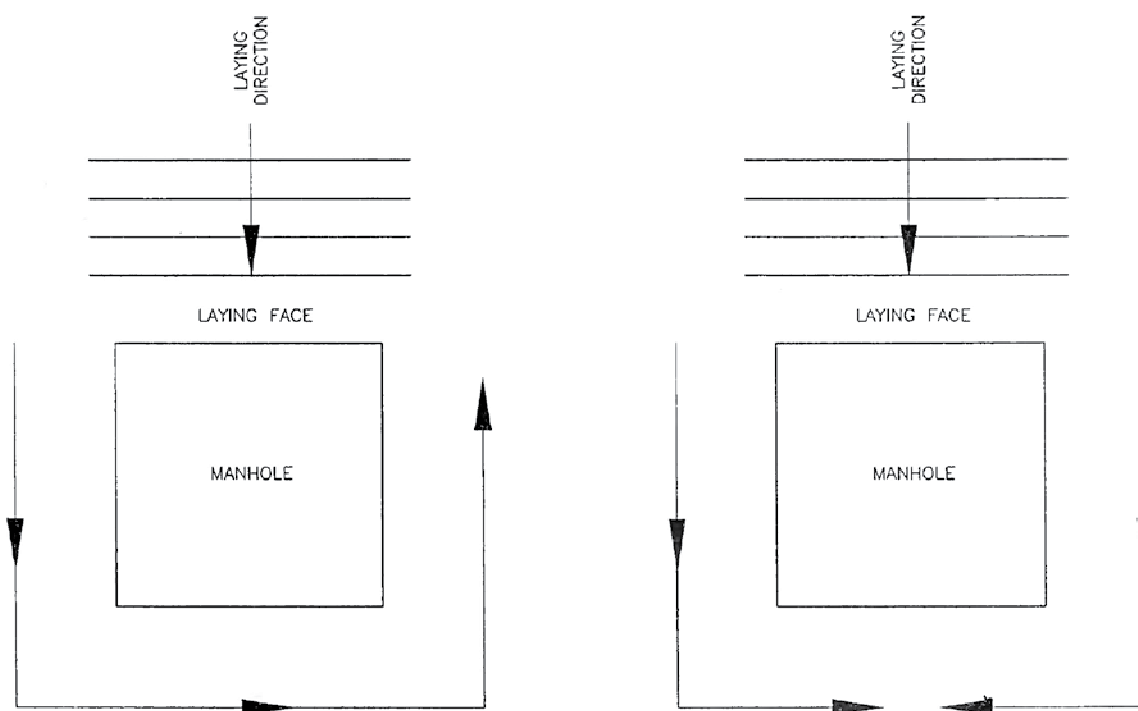


Fig.20.LayingBlockPavingAroundaManhole

8.8.7.3 Changes in alignment

Changes in alignment of a road pavement can sometimes be achieved by the use of special blocks. However, it is generally easier to choose a block that can be installed in herringbone bond and simply cut the blocks to fit the edge restraints. Where aesthetic requirements or shape of the paving unit dictate the use of stretcher bond, then only a 90° shape change in alignment can be achieved without cutting the blocks (**Fig. 21**). At intersections, if a herringbone bond laying pattern is adopted, the paving can proceed without the need for construction joints (**Fig.22**). An alternative to this is to install a shoulder (support

t)courseof rectangular paving units between the main roadway and the side streets; this permitsdifferentlayingpatternstobeusedintheworoadways.

8.9 Specifications

Annexure-I gives the specifications for laying. The BIS Specifications IS:15658:2011 for Precast Concrete Blocks for Paving may be followed for the manufacture and testing of blocks.

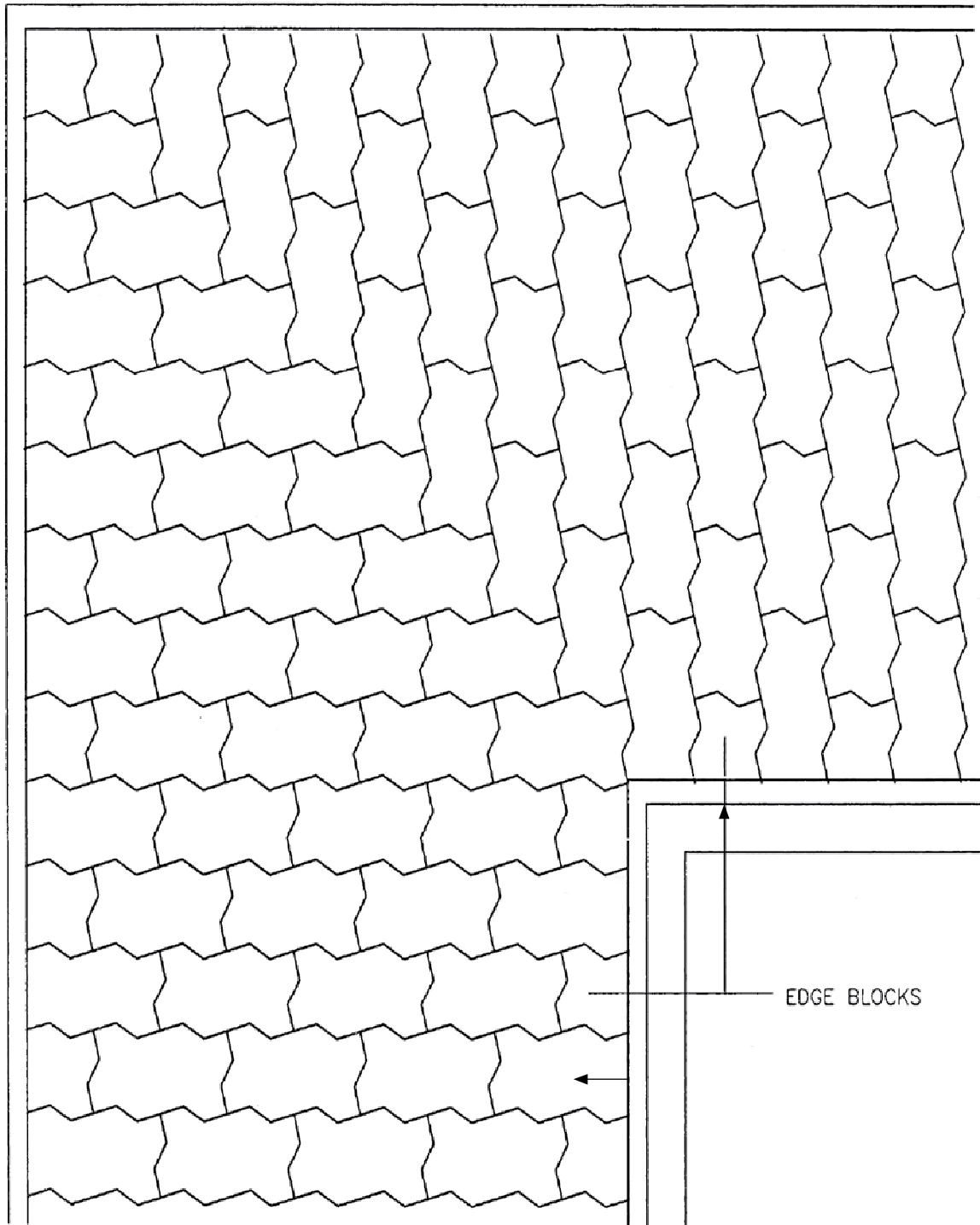


Fig.2 190° Change in Alignment using Stretcher Bond

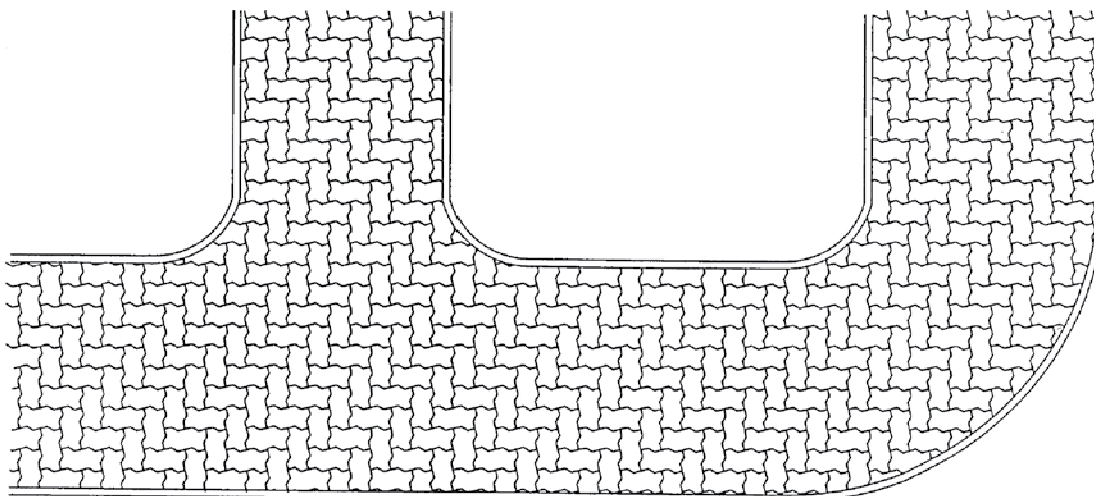


Fig.22 Adaptation of Herringbone Bond to Changes in Alignment

9. MAINTENANCE

9.1 General

Like any other roadwork, block pavement also required to be maintained to get long service. The maintenance requirement of block pavement is minimal. The block pavement requires initial maintenance soon after its laying, say after a week or two for checking sand in the joints. Subsequently, the maintenance is in the form of replacing any damaged block/blocks or raising the settled section, if any. Repair especially after laying a cable duct is much simpler in the case of block pavements. The cut area can be reinstated without any blemish.

9.2 Initial Maintenance

After about a week of laying the blocks there is a need to inspect the surface to check for any loss of sand at joints. Wherever sand level has dropped down it should be reinstated. This type of inspection should continue for two to three months till the sand level is stabilized and topping up is no more required. With time the joints receive fine dust and detritus thus making them waterproof. During rains these joints may allow weeds to grow but these normally should get eliminated with the traffic. In case it does not get eliminated the weeds may have to be controlled by spraying herbicide or by manual removal. Annual inspection, however, will be required.

9.3 Storage of Blocks

For the purpose of reinstating damaged blocks it is necessary to stockpile as small percentage of blocks from the lots used in the construction. The size and colour of the blocks may be difficult to obtain at a later date matching with the original blocks. For important projects, it is normal to stockpile blocks from 1 percent to 3 percent of initial supply for subsequent use.

9.4 Coating and Cleaning

As part of preventive maintenance, blocks can be sealed using compounds, like,

silicone, acrylics and silica fluorides for enhancing the colour, reducing absorptive nature of the blocks and for improving surface toughness. These coatings have a life of 1 to 3 years and hence they have to be repeated as per the requirement. The most durable of these chemicals is solvent-borne acrylics which are abrasion resistant and also minimize chemical effects of spillage even at 60°C.

Cleaning of block pavement can be done by mechanical brooms, compressors or even by manual means. For removing certain stains, chemicals, like, oxalic, acetic and phosphoric acid etc. are used. Sometimes it may be expedient to replace the blocks where stains have penetrated to a greater depth.

TECHNICAL SPECIFICATIONS FOR LAYING CONCRETE PAVING BLOCKS

1.1 Base

1.1.1 The finished surface of the concrete bases shall match the design profile of the concrete blocks within ± 10 mm.

1.1.2 Compaction shall be done by normal roller preferably with vibratory roller. In restricted areas where normal rollers cannot operate, hand-held or plate vibrator should be employed.

1.2 Bedding Sand Layer

1.2.1 The bedding sand layers shall be from either a single source or blended to achieve the following grading:

<i>IS Sieve Size</i>	<i>Percent Passing</i>
9.52mm	100
4.75mm	95-100
2.36mm	80-100
1.18mm	50-95
600micron	25-60
300micron	10-30
150micron	0-15
75micron	0-10

Singlesized, gap-graded sands or those containing an excessive amount of fines shall not be used. The sand particles should preferably be angular type.

1.2.2 The bedding sand should be slightly moist, and the moisture content shall be about 4 percent by weight.

1.2.3 The joint-filling sand should pass a 2.36 mm sieve and be well graded. The following grading is recommended:

<i>Sieve Size</i>	<i>Percent Passing</i>
2.36mm	100
1.18mm	90-100
600micron	60-90

300micron	30-60
150micron	15-30
75micron	0-10

1.2.3.1 The use of cement in the joint-fillings and is not recommended as a general practice as the cemented sand is likely to crack into segments which are easily dislodged.

1.2.3.2 Average thickness of this laying course shall be 30 ± 5 mm.

1.2.4 It should contain not more than 3 per cent by weight of clay and silt and the material shall be free from deleterious salts or contaminants.

1.2.5 The finished surface of the bedding layers shall match exactly the design profile as indicated on the drawings.

1.2.6 Before placing the bedding layers, the surface of concrete should be cleared by sweeping.

1.2.7 Walking or driving on the finished surface of the bedding layers shall not be permitted.

1.3 Concrete Paving Blocks

1.3.1 Laying of the blocks shall be done, precisely at the indicated level and profile and in a way that a good surface draining to the gulley chambers is assured.

1.3.2 Around gulley chambers and inspection pits the pavements shall have a level of 5 mm higher than the above mentioned elements.

1.3.3 The blocks shall be laid to the pattern shown in the drawing/specification or the pattern recommended by the designer. The blocks shall be laid as tight as possible to each other. The maximum joint width shall be limited to 3 mm.

1.3.4 Laying of broken blocks is not allowed except along connections or edges.

The maximum length of a purpose broken block is 100 mm. Breaking of the blocks shall be done with a "block splitter" or a mechanical saw.

1.3.5 Fine angular sand as per specification shall be brushed into the joints, and thereafter compaction shall be done with a vibrating plate compactor on a clean surface. After compaction, again fine angular sand shall be brushed into the joints.

1.4 Surface Tolerances

1.4.1 Surface tolerance for finished surfaces shall be ± 5 mm from the design level.

1.4.2 The surface tolerance for base course shall be in the range of 0 to +10 mm from nominated level and 10 mm deviation from a 3 m straight edge.

1.4.3 The surface tolerance for sub-bases shall be within 0 to 20 mm of nominated level.

1.5 Methodology for Laying Blocks on Trench Filled Areas

1.5.1 In urban area it is common practice to leave 1 to 1.5m wide strip along main concrete road for laying of utilities in future. This is laid as flexible pavement or paver block

pavement. However after the laying of services the reinstatement is not done properly resulting into undulated surface leading to public inconvenience, WMM and GSB is generally provided as base and subbase, under block pavement, but these layers get disturb during trenching for laying utilities. Reconstruction of these layers after laying utility is not done properly. As a result settlement and undulation occur causing failure and inconvenience it is recommended that a layer of DLC or Controlled Low Strength Material (CLSM) be provided above well compacted GSB & WMM layers. Specification of CLSM are given in **Annexure II**.

CLSM-Controlled Low Strength Material is self compacting, cementations material. The properties of CLSM are between Soil and Concrete. CLSM is manufactured from materials similar to those used to produce concrete and displace from equipment in a fashion similar to that of concrete. Guidance should be taken from Report on Controlled Low Strength Material, American Concrete Institute, ACI-229R-13, which was referred for drafting this specification. Specification for controlled low strength material is given in **Annexure-II**.

2 FIELD/LABORATORY TESTS

- (a) Necessary field/laboratory tests shall be carried out by the contractor while executing the work at his own cost.
- (b) The field/laboratory tests may be conducted in an Engineering College / approved technical institution as per specification in contract agreement.

SPECIFICATION FOR CONTROLLED LOW STRENGTH MATERIAL (CLSM)

1

INTRODUCTION

CLSM- Controlled Low Strength Material is self compacting, cementations material. The properties of CLSM are between soil and concrete. CLSM is manufactured from materials similar to those used to produce concrete and displaced from equipment in a fashion similar to that of concrete. Guidance should be taken from Report on Controlled Low Strength Material, American Concrete Institute, ACI 1229R-13, which was referred for drafting this specification.

2

APPLICATIONS

2.1 General

The primary application of CLSM is as a structural fill or as a base pavement. Since freshly mixed CLSM is in fluid form, it is self levelling and needs no compaction. It is ideal for use in restricted access areas where replacing and compacting fill is difficult e.g. refilling trenches, spaces behind walls, around manholes etc.

The strength of the hardened fill material is measured by unconfined compressive strength, by the method similar to soil testing of remoulded specimen. The size of test specimen can be 38 mm diameter to 150 mm diameter cylinder having length 2 to 2.5 times the diameter. Test can also be performed on cubes 100 mm size or 150 mm size. Normal diameter of the test specimen should be about 8 times the largest particle with size in the mix. The strength has to be specified with size of test specimen to be used, and may change with size of specimen and its aspect ratio. Refer IS 2720 part 10 for unconfined compressive strength of remoulded soil specimen. The strength of CLSM can generally be in range of 1.5 to 5.0 MPa, though fills having strength 0.5 to 8 MPa are possible.

3

MATERIALS

3.1 Controlled Low Strength Material (CLSM) is a mixture of water, Portland

cement, sand, fly ash Ground Granulated Blast Furnace Slag (GGBS) and aggregate. For lower strength (say below 2.5 MPa) natural soil, available material excavated from road crust, recycled aggregates, marginal or low aggregates (not conforming to IS 383) can also be used. Selection of material should be based on required characteristics of the mixture including flow-ability and strength. Trial mixes can be done to arrive at proper quality of CLSM.

3.2 Cement

The cement used shall be any of the following type selected for the intended use.

- (i) Ordinary Portland Cement, IS 269-2015 (OPC)
- (ii) Portland-Pozzolana Cement, IS 1489 Part 1-2015 (PPC)
- (iii) Portland Slag Cement, IS 445-2015 (PSC)
- (iv) Composite cement, IS 16415-2015 (blended with granulated slag & flyash) Cement can additionally be mixed with more supplementary cementitious materials with multiple blending.

The cement content varies from 60 to 120 kg/m³.

3.3 Supplementary Cementitious Materials:

Coal combustion fly ash or Ground Granulated Blast Furnace Slag (GGBFS) can be used.

The quantity used from 50 to 750 kg/m³.

3.4 Aggregates

Aggregates are the major constituent of CLSM mixtures. The type, grading and shape of aggregates can affect the physical properties such as flow ability and compressive strength. Generally aggregates sizes 10 mm down are utilized. Quarry waste of this size could be utilized. The sand shall be river sand of required gradation. Silty sand could be used. However, sand with clayey fines should not be used. The quantity of total aggregates used could be from 1500 to 1700 kg/m³.

3.5 Admixtures

Air entraining admixtures and foaming agents can be a useful constituent for the CLSM. The inclusion of air in CLSM can help to provide improved workability and reduced shrinkage, less bleeding, minimum segregation and lower unit weights.

The CLSM mixtures are pumpable but require higher pump pressures. To prevent extended setting times, extra cement or an early setting admixture may be added if required. In such cases pretesting should be performed to determine acceptability by providing trial stretches. This can give opportunity to effect minor modification in the design.

3.6 Water

Water that is acceptable for normal concrete mixture is acceptable for CSLM mixtures. (Potable water is generally considered satisfactory for mixing of CLSM). Water used is from 150 to 400 kg/m³.

CLSM can be successfully delivered by conventional concrete pumping equipment or by locally preparing in concrete mixers. Proportioning of the mixture is critical. Voids must be adequately filled with particles to provide adequate cohesiveness for transport through the pump line under pressure without segregation. Hardening time is mainly dependent on the type and quantity of cementitious material used in CLSM.

Wet density of normal CLSM in place is in the range of 1840 kg/m^3 to 2300 kg/m^3 . A CLSM mixture with only flyash, cement and water should have a density between 1440 to 1600 kg/m^3 .

The ability to excavate CLSM in required in future is an important consideration for road shoulder work. In general CLSM can be excavated by pickaxes or with light excavating equipment. However, the limits for excavability are somewhat arbitrary, depending upon the CLSM mixtures.

CLSM is incompatible with Polyethylene materials which are mainly used as protection for the underground utilities or as the conduits themselves. As with any backfill care must be taken to avoid damaging the protective coating of underground utility lines.

4.1.1 *Flow Ability*

Flow ability is the property that distinguishes CLSM from other fill materials. It enables the material to be self-levelling flow into small size excavated portion and readily fill void and is a self-compacting without the need for conventional placing and compacting equipment. This property represents a major advantage of CLSM compared with conventional fill materials that need mechanical placement and need compaction.

4.1.2 *Hardening Time*

Hardening Time is the approximate period of time required for CLSM to go from fluid state to a hardened state with sufficient working strength. Generally it takes 24 hours under normal conditions without admixtures. With admixtures this time is required to be brought between 2 to 4 hours. Broadly speaking, a person should be able to walk over the laid CLSM within about 2 to 4 hours.

Following are the factors affecting the grading time:

1. Type and quantity of cementation material
2. Moisture content of CLSM
3. Permeability and degree of saturation of surrounding material that is in contact with CLSM
4. Proportioning of CLSM
5. Mixture and surrounding temperature
6. Humidity
7. Method of filling

5 MIXTURE PROPORTIONING AND PROCEDURE

Different proportioning of mixes for CLSM have been prescribed in ACI. But trial mixes and stretches can be prepared with different proportion to achieve the CLSM, which hardens sufficiently in 2 to 4 hours. To achieve required strength of M^2_i , i.e. 20 kg/cm² mixes with 1 cement and 60 parts of sand/grit/flyash combination is usually required. Trials are, however, necessary to fix actual proportions.

Following is the procedure that can be adopted for mixing:

1. Add 70 to 80% of water required
2. Add 50% of the aggregate filler
3. Add all cement and flyash required
4. Add balance of aggregates
5. Add balance water

Generally about 15 min is required to produce a homogenous slurry.

6 MIXING, TRANSPORTING AND PLACING

6.1 Mixing

CLSM can be mixed by several methods including ready mix through batching plant conveyed by RMCTrucks. It can be also done by concrete mixers etc.

6.2 Placing

6.3 The placing of CLSM can be done thorough, conveyor, buckets or pumps depending upon the application and its accessibility. As mentioned internal vibration or compaction is not required since the CLSM gets considered essential for CLSM.

7 QUALITY CONTROL

The extent of a quality control of CLSM can vary as per experience, application and basic materials utilized and level of quality desired. Quality control of CLSM can be as simple as a visual check of the completed work, where standard pretested mixtures are being used. Mould cubes should be taken and tested as for normal concrete.

TECHNICAL SPECIFICATION OF ELECTRIFICATION INSTALLATION WORKS

The details of internal wiring, the position of fittings, fans, switches and plug sockets etc. are indicated in the layout drawings. The position of light fittings, fans, switchboards etc. indicated in these drawings are only for the guidance of the supplier and the actual position of these shall be mutually decided between the supplier and the purchaser. The supplier shall submit the purchaser of his consideration and approval all runs of wiring and the exact position of all the points and the switch boxes first marked on the points buildings.

All internal wiring shall be done in conformity to the latest Indian standard specification/Rules, code of practice adopted by CPWD and other standard practices prevalent in the part of the country. For the purpose of the specification the terminology used shall be as defined in IS:732 and IS:1356 of the definition of points wiring. The installation shall be carried out in conformity to all requirements of IE Act, 1910 and IE Rules 1956.

- a) Ceiling rose in (in case of ceiling and exhaust fan).
- b) Ceiling rose or connector (in case of pendants except stiff pendant points)
- c) Bank plate (in case of stiff pendant).
- d) Socket outlet (in case of socket outlet points)
- e) Lamps holder (in case of wall Bracket, batten holder bulk head fitting and similar other fittings)
- f) Call bell / buzzer (in case words 'via' the switch shall be read 'via' the ceiling rose / socket outlet for bell push, where no ceiling rose / socket outlet its provided.

The following shall be deemed to be included in the point wiring

- a) Switch and ceiling rose are required
- b) In case of wall brackets, bulk head fittings, cables as required up to the lamp holders]
- c) Bushed conduit for porcelain tubing where cables pass through walls.
- d) All wood or metal blocks, boards and boxes, R.J. Boxes sunks or surface type including those required for fan regulator but excluding those under the distribution board and main control switch.
- e) Earth wire from 3 pin socket point to the common earth including connection to the earth dolly.
- f) Earth wire of 18SWG/H.D.B.C. wire for loop earthing of the fixture
- g) All fixing accessories such as clips, nails, screw, plug, rawl plug, wooden plug, round blocks etc. as required
- h) Joint for junction boxes and connecting the same as required
- i) Connections to ceiling rose or connection socket outlet, lamp holders, switch , fan regulators etc

The point wiring in case of fan and light points shall mean the distance between the control switch and ceiling rose, connect or back plate, socket outlet or lamp holder depending upon the fittings measured along the runs of wiring irrespective of the number of wires in run. In the case of socket outlet points, the length shall mean the distance between the socket outlet and the tapping point of live wire on the nearest switchboard or junction box, as the case may be.

In the case of exclusive socket outlet circuits wired on 'Joint Box' system of wiring, any junction provided for extending the wiring beyond the point referred to, shall be treated as the nearest tapping point. In case of call bell / buzzer points the length shall mean the distance between the call bell and the ceiling rose / socket outlet or the bell push (when the ceiling rose / socket outlet is not used).

Sub main shall include the earth wire of adequate size main distribution Board up to sub distribution board B.B. such wiring has been classified on the basis of length. For the internal lighting, either surface conduct wiring system or recessed conduit or batten wiring system shall be provided as specific in the bill of quantities and working drawings.

Conduit wiring

For recessed conduit wiring system the conduit shall be placed in the ceiling / columns etc. before the casting of the slab or column. The conduit pipes shall be properly positioned and fixed so that it will not be displaced at the time of concreting. The junction boxes provided shall be so arranged that its cover will be flushed with the finished surface of the ceiling or column.

For placing the conduits in the walls, chases of ample dimension shall be made neatly to fix the conduit in a desired manner. The conduit pipe shall be fixed by means of staple or saddles not more than 600mm apart. Fixing of standard bends or elbows shall be avoided and all curves maintained by bending the conduit itself with a long radius will permit easy drawing of the conductors. Suitable inspection boxes shall be provided to permit periodical inspection and removal or replacement of wires if necessary. There shall be mounted flush with the wall with holes in the cover of the box.

The switch or regulator box shall be made of metal on all sides except on the front where backlight sheet or Perspex cover painted to match the colours of the wall shall be used in case of surface wiring system. For recessed wiring system, these boxes shall be made flush with the conduit of each conduit or section shall be completed before conductors are drawn in. The entire system of conduit after installation shall be tested for mechanical strength and electrical continuity throughout the earthing of the entire installation shall be carried out in accordance with I.E. Rules and standards.

The number of wires drawn in the conduits shall not exceed the numbers those specified in Indian standard specification No.732.

Main and Sub distribution Boards:

The position of main boards for lighting and sub distribution board for different buildings are approximate and the exact location shall be given to the successful tenderer at the time of installation.

The scope of this specification includes installation of the panel boards and distribution boards and making necessary connections. The installation of the boards shall be done strictly in accordance with the details supplied with the specifications; the instructions supplied by the switchgear manufacturer, Indian standard specifications and H.E. rules.

The supplier shall submit the details of installations to the purchaser for his consideration and approval, prior to installation.

When the switchboards are wall / column mounted top, they shall, be mounted on a suitable angle iron framework. All the metal supports etc. shall be protected against corrosion. The mounting height for such switchboards shall be such that it can be conveniently operated.

Earthing

Earthing shall generally be carried out in accordance with the requirements of Indian Electricity Rules and the relevant rules and regulations of electrical supply authorities. The complete earthing work for the installation covered by this specifications shall also be provided taking into account Indian Standard Specification No.IS:732 and IS:3043. The earthing system adopted shall also have adequate mechanical strength.

The work shall include earthing of non current carrying metallic parts of all the equipment, light fittings, conduit pipes, cable and cable supports and earth strips (the design to be approved by the purchaser) and all the inter connection between the earthing system to a value mutually agreed upon between the purchasers and the supplier.

Installation, testing and Commissioning:

The supplier shall be responsible for the installation testing the commissioning of all the equipment and materials supplied by him against this specification. This shall also include the provision of miscellaneous wiring and supports and earthing in compliance with Indian Electricity rules and to the full satisfaction of the Government Electrical Inspector. All small items such as clamps, bolts, nuts, racks, supports, miscellaneous wiring etc. required to make the installation complete, shall constitute the part of major items specified in the bill of quantities and the tenderer should quote for each item taking these into consideration.

The responsibility of the supplier shall include receiving all the equipment and materials at site, storage for required period, handling the same at the site of erection, final

execution , erections, revisions of equipment, if any, testing and commissioning and handing over the installation complete in all respect to the entire satisfaction of the purchaser's authorized representative. The supplier shall make good of all the damaged equipment and materials during this period at his own expense.

The supplier shall submit sample of each and every equipment and materials for the final approval of the purchaser's representatives immediately after the acceptance of offer. All the equipments and materials shall be supplied exactly as per to the approved samples. If at any stage the purchaser brings to the notice of the supplier any discrepancy or defect the supplier shall replace the same at his own expense.

The supplier shall render all reasonable assistance to the purchaser in getting the installation approved by the Government Electrical Inspector prior to the energisation and supply necessary drawings, test certificates and both for tests carried out at the factory and site as well as the tests which the inspector may demand. In case any addition of alternations are required, to be made in the installation or in the equipment as per he directive of the Government Electrical Inspector / Local Authorities, he same will have to be carried out by the supplier , at his own expense.

The position of light fittings, main board, switches, sockets and routes of pipes and cables shown in the drawings are only indicative. The actual position of these shall be decided at site at the time of execution joints by the supplier and the purchaser's authorized representative. The position of light fittings, pipes and board if required, to be changed / shifted due to the change in the building design etc by the purchaser's authorized representative, the same shall be carried out at no extra cost.

All the materials supplied to the contractor according to the Contract condition will be subject to inspection and approval of the officer or his representative from time to time. The contractor will provide all facilities of such inspections free of cost. At the time of inspection, the owner of his representative will have full liberty to reject any such materials, which does not conform to the specification / requirement. No claim fo any rejected materials will be entertained by the owner. The contractor will remove all rejected materials from site at his own cost.

No surplus materials procured by the contractor will be accepted by the owner.

The contractor will be responsible to get the Electric installations cleared by the Electrical Inspector of Orissa Government.

Only the inspection fee will be reimbursed by Department on production of challan copy.

Installation and Maintenance Tools:

The supplier along with the tender shall furnish a complete list of tools, appliances and accessories required for the installations of switch grass, light fittings, pipes cables and wires.

Drawings:

All drawings, test certificates, instructions manuals etc. shall be in English Language and all dimensioins and weights shall be in metric units.

The tenderer shall submit with the tender general arrangement drawings for the installations work, typical methods and cabling and cables supports pipe work and pipe supports, typical methods of earthing and fixing of light fittings earthing etc. as offered by him in the tender.

The contractor shall submit for he purchaser's approval all layout, the general arrangement drawings as well as the typical details of all types of installation work in three sets before commencing the manufacture and the site installations work well in advance so that the site work shall not sufer.

After obtaining approval of the above drawings the contractor shall supply three sets of the following drawings:

- (a) The arrangement and support of conduit pipe
- (b) The position of light fittings, switches / plug socket and switch boards
- (c) Earthing installations

(d) Layout plan showing the entire cable network

On completion of work, the successful tenderer shall supply one set of tracing in transparent linen and five sets of prints of all drawings incorporating all the changes / modifications affected during the execution of the contract. All wiring diagrams shall indicate clearly, the switch board, the runs of main and sub main wiring and the position of all the points with their controls. All the circuits shall be clearly indicated and numbered in accordance with IS:375.

The technical literatures and operating instructions and the maintenance manuals shall also be supplied in triplicate to the purchasers after the completion of the installations work.

Test:

Manufactures standard tests in accordance with Indian Standard and other standards, adopted shall be carried out on all the equipment and accessories covered by this specification so as to ensure efficient and satisfactory performances of all the components and also the equipment as a whole under working conditions at site. The tenderer shall submit a complete list of all such tests. If the purchaser, if so desired for special tests, to be carried out, under certain conditions the same shall be made by the successful tenderer at his own expenses.

All equipment shall be tested at site before the commissioning in accordance with the adopted standard and Indian Electricity Rules. Voltage test shall be carried out on each circuit on completion of wiring and cabling.

Technical Data:

The tenderers shall submit with their tender all such technical data, which are required for complete evaluation of the equipment offered. The suppliers shall give complete technical information of the equipment as detailed in Annexure and relevant Indian standards. The tenderer should supply such details of all equipment and materials offered specially with regard to the following.

- a) Fuse switch board and distribution boards
- b) Light fittings
- c) Conduits and the accessories for them
- d) Switches / plug sockets
- e) Cable and wires

The tender shall give along with his tender the following details:

- a) Complete details of earthing electrodes, earthing station and earthing conductors
- b) Details of conduit supports
- c) Details of all the equipment and accessories to be supplied

Exception to Specifications:

The object of this specification is to have all tenderers quote for equivalent materials and workmanship. It is, however, understood the certain manufacturers may not be able to offer as specified in every case, where the tenderer may find it necessary to deviate from the exact letter and not the intent of the specification, he must specifically state what these deviations may be at the time he submits the tender. All deviations must be grouped in one statement.

No deviations other than those included in the tender will be permitted. These deviations should be listed as per Annexure.

PVC insulated Cables and Wires:

For 415V Distribution system, cables of voltage grade not less than 1000V shall be used. These cables shall be heavy-duty class, PVC insulated and PVC sheathed with aluminium conductors. The wires used in the lighting installation shall be PVC insulated and sheathed in case of conduits wiring and of 660V grade. Wires of different colours shall be made use of for quick identification of phase wire / neutral wire etc. All cable of wires shall comply with the requirements regarding the manufacture and testing etc as specified in India Standard Specification IS:1554 and IS:694.

The length of cables indicated in the bill of quantities and drawings are only indicative and the successful tenderer will be paid for the exact length of cables laid at site. No joint shall be allowed in a run of cables, which can be covered by a possible drum length of cables.

Fuse switch / switch fuse shall be metal clad dust and vermin proof suitable for use under climatic conditions prevailing at site. Switch fuse / fuse switch units shall comply in general to IS:1567/4064 with regard to design and constructional / features.

The 'ON' and 'OFF' position of the switch handles shall be distinctly indicated and interlocks shall be provided to ensure that the switch cover cannot be opened unless the switch is in the 'OFF' position. Means shall, however, be provided for releasing the interlock to permit closing of switch with cover open for testing purposes. Designs with normal conventional position of switch handles, i.e. with switch handle up in the 'ON' position and down in the 'OFF' position shall be preferred. All live parts inside the switch shall be properly surrounded and inter phase barrier shall be provided.

Switch fuse / fuse switch units, distribution boards shall be provided with necessary metal frame work so that they can be mounted on wall / columns structure etc. as desired. The panel boards, shall be wall mounted type or floor mounted type as specified in the bill of quantities or drawings. Necessary supporting metal frame of approved design shall be provided for all panel boards.

The arrangements of work boards shall be such that the operational handle of the top mounted switches are within the convenient of operators (about 1.2 M from the finished floor level) and proper space shall be provided for the termination of the cable in the switches provided below the bus-bars.

The bus-bars within the bus-bar chamber shall be liberally spaced for taking the riser connection. The bus bars with aluminium conductors shall be provided and PVC sleeves of different colour shall be mounted on them for easy identification, Clamped joints for taking the riser connections, instead of bolted type shall be preferred.

Two bolted type earthing terminals shall be provided on the switch boards. All individual switches shall be connected with suitable size earth wire to the main earthing terminals of the switchboard.

Hanger Board and shock treatment / charts shall be supplied wherever required.

At the incoming side of each pen phase, 3-neon type indicating lamps should be provided at the main board.

Switches and Plug Sockets

Switches provided for control of light points shall conform to IS:1087 and shall be rated for 5A/15A 250V

Ceiling Fans and Exhaust Fans:

Ceiling fans shall conform to Indian standard specification IS: 374-1960. The fans shall be supplied with all standard accessories like regulator and capacitors etc.

The performances rating of the propeller fans shall in accordance with stipulations of IS:2312. All fans shall be robust in design and construction and shall be supplied complete with wall brackets / clamps etc.

Fluorescent Fittings:

All fluorescent fittings supplied shall conform in general to IS:1913 and shall be complete with all standard accessories like choke, starter and capacitor etc

The type of enclosure provided for the fittings shall be of that specified in the bill of quantities and the working drawings. The materials of construction for fittings used for outdoor installations and for use in the work anodes shall be such that they shall withstand the atmospheric condition in that area.

Lamp holders used shall be fully shock proof, spring-loaded rotary type to ensure positive lamp locking. It should also be not possible to touch live parts of the lamp holder both after the lamp has been taken out and during the insertion or removal of the lamp. The starters shall be designed to give designed starting characteristics that shall promote full lamp life. Starter shall have high mechanical strength and shock proof construction. It should be

incorporated with radio suppression capacitor of adequate rating and capacity. Power factor improvement capacitors are provided with hermetically sealed housing to ensure long and trouble free service. Terminal soldering tango shall be provided for easy electrical connections. The capacitors in general shall conform to IS:1569-1963 and P.F improvement up to 0.95 for twin fluorescent light fittings and 0.9 for single fluorescent light fittings is to be maintained.

The ballast provided in the fluorescent fittings shall generally be in accordance to IS:1534.

The ballast should incorporate the following design features.

- i) Low working temperature
- ii) Correct pre heating current for the electrodes
- iii) Proper wave foam
- iv) Small in dimensions
- v) Correct power supply to the lamp
- vi) No hum.
- vii) Easy connection leads.

All the metal construction of the fittings shall be such that they shall:

- 1) Withstand the atmospheric condition prevailing in the area
 - 2) Provide maximum mechanical protection to the tubes and fittings accessories.
- Assists in maximum and uniform light distribution.

All fittings shall be provided complete with florescent lamps. All lamps shall conform to IS:2418.

Incandescent Fittings:

The incandescent fittings shall be supplied strictly as per the details given in the enclosed annexure and bill of quantities, deviation if any regarding designs, construction of materials should be specified clearly.

All the metal parts used in construction of the fittings shall have no effect due to dust / fumes / gases likely to exist in the atmosphere. All the bolts, clamps, nuts and guard wire etc shall be galvanized.

The wall fittings shall be provided with necessary hooks / clamps / supports etc for fixing the light fittings on wall / ceiling etc as detailed in the bill of quantities and the working drawings.

Light fittings shall be suitable for connection with 19mm dia. Conduit pipe as required. If fittings are to be connected through PVC cables, glands of adequate size and capacity shall be provided.

The lamp holders provided in the fittings shall conform to IS:1528.

CODES

Codes shall mean the following including the latest ascendants and / or replacement if any.

- a) Indian Boiler Act, 1923 and Rules and Regulations made there under
- b) Indian Electricity Act, 1923 and Rules and Regulations made there under
- c) Indian Factories Act, 1948 and Rules and Regulations made there under
- d) The minimum wages Act
- e) The Women's Compensation Act
- f) The Payment of Wages Act
- g) The Fatal Accident Act
- h) The Industrial Employment Act
- i) The Employment provident Fund Act
- j) Indian Explosive Act 1984 the Rules and Regulations made there under
- k) Indian Petroleum Act 1934, and Rules and Regulations made there under
- l) A.S.M.E. Test Codes
- m) AIRE Test, Codes

- n) American Society of Materials Testing Codes
- o) Standards of the Indian Standards Institution
- | | |
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| 1) Low Tension Circuit Breakers :
Sec.1 | IS 2516-1955 Part I |
| 2) Switchgear Bus Bars | IS 375-1963 |
| 3) HRC fuse links | IS 2208-1962 |
| 4) Distribution fuse boards | IS2675-1966 |
| 5) Enclosure for Low Voltage switchgear | IS214701962 |
| 6) PVC Cables | IS1554-1975 |
| 7) Tabular fluorescent lamps for Cameral lighting service | IS2418-1963 |
| 8) Tungsten Filament Lamps for cameral service | IS415-1963 |
| 9) Ceiling Fans | IS274-1966 |
| 10) Flood lights | IS1947-1961 |
| 11) Wall Glass flame-proof electric light fittings | IS2206-1962 (Part 1) |
| 12) Water Tight Electric Light Fittings | IS3553-1956 |
| 13) Steel Boxes for Enclosure of Electrical Accessories | IS5133-1969 |
| 14) Fittings for Rigid Steel conduit | IS2667-1979 |
| 15) Rigid steel circuits for electrical wiring | IS3837-1966 |
| 16) Accessories for Rigid Steel Conduits for Electrical Wiring | IS3837-1966 |
| 17) Switch Socket Outlets | IS3837-1966 |
| 18) PVC Wiring | IS694-1977 |
| 19) Switches for domestic and similar purpose | IS3854-1966 |
| 20) PVC wiring | IS694-1977 |
| 21) Call Bell and Buzzers | IS2268-1966 |
| 22) Straight through joint boxes and leads sleeves or
paper insulated cables- | EID-0032-1964 |
| 23) Earthing | IS3043-1966 |
| 24) Electrical Wirng installations | IS732-1963 |
| 25) Switchgear | IS3072-1965(Part I) |
| 26) Lighting protection | IS2309 -1969 |
| 27) Public Address system | IS1882-1962 |
| 28) Low Tension switch use units | IS4064-1978 |
| 29) Code of Practice for Automatic FIRE ALAM system | IS2189-1970 |
| 30) Specification for Heat Sensitive Fire Detectors | IS2175-1977 |
| 31) Guide for Safety procedure in Electric work | IS5216-1969 |
| 32) Rubber Mats for Electric works | IS5424-1969 |
- p) Other internationally approved standards and / or Rules and Regulations touching the subject matter of the contract

TECHNICAL SPECIFICATION FOR P.H PORTION OF THE WORK :

A. WATER SUPPLY PIPES AND FITTINGS

1. Materials

All galvanized Iron pipes are to be of mild Steel, continuous welded, screwed tubes, medium quality confirming to ISS & bearing ISI Marks, manufactured by reputed firms and approved brands as specified. The pipes shall confirm to I: S 1239 (Part - I) - 1975.

All G.I. Fittings shall be of 'R' Brand manufactured by M/S. R.M. Engineering Ltd., Ahmedabad and 'C' brand manufactured by Crescent Engineering works or equivalent best quality.

All pvc pipes are to be of medium quality (Schedule- 80) manufactured by reputed firms and approved brands as specified. The pipes shall confirm to ASTM- D- 1785

2. Weight of G.I. pipes for a Metre length:

The per meter weight of different diameters of G.I. pipes for medium class is indicated in the following table.

Sl No	Pipe size in mm	Medium class (in kg)
1	15mm	1.22
2	20mm	1.57
3	25mm	2.43
4	32mm	3.13
5	40mm	3.60
6	50mm	5.10

3. Laying of Pipes

The layout of the mains and service Pipes etc will be done in accordance with the drawings. The Contractor is to mark out the exact position of the pipes and fittings at site and take approval of the consultant /Engineer In-charge, before taking up the work.

4. Where the pipes are laid, underground these must not be laid less than 450mm below ground level and coated with one coat of approved black bituminous paint. For laying the G.I. Pipes and Fittings below ground level, the width and the depth of the trenches for different dimensions of the pipes shall be given as below:

Dia of pipe	Width of Trench	Depth of Trench
15mm to 50mm	300mm	600mm
65mm to 100mm	450mm	750mm

The pipes shall be laid on a layer of 75 mm thick sand and filled up with sand up to 75 mm above pipes and the remaining portion of the trench shall then be filled up with excavated earth with proper ramming as described in "Excavation and refilling". The surplus earth shall be disposed of as directed.

Thrust or anchor blocks of cement concrete 1:2:4 in hard granite chips shall be constructed on all bends or branches to transmit the hydraulic pressure without impairing the ground and spreading it over a sufficient area. Pipes shall not be laid to pass through manholes, catch pit, drain. Where it is unavoidable the pipes shall be carried in sleeve pipes of M.S./G.I., as approved by the consultant/Engineer-in-charge. The rates should include such a situation

5. Where pipes run along walls, the same are to be fixed to the wall with holder bat clamps/ M.S. Hooks as below

Dia of pipe in mm	15	20	25	32	40	50
Horizontal Line	2m	2.5m	2.5m	2.5m	3m	3m
Vertical Line	2.5m	3m	3m	3m	3.5m	3.5m

Where the pipes are passing through the R.C.C. / Masonry wall/ Column/ beam or pillars, these must pass through the appropriate higher sizes of C.I. / G.I. Sleeve Pipes and are to be included in the rates

In case the Pipes are embedded in walls and floors it should be painted with one coat of anticorrosive paint of approved quality

All pipes should be fixed horizontal and vertical. For taking the Pipes through the walls and floors and roof slabs etc. the holes shall be made by filling with chisel or jumper and not by dismantling the brick work or concrete. After fixing, the holes shall be made good with cement concrete 1:2:4 and properly finished with cement plaster 1: 4 to match the adjacent surface.

Union Nuts are to be provided in each of the Vertical riser or drop on and from G.I. Tank and near the Valve and as and where necessary.

The long screw fittings of 8 cms are to be provided for long horizontal lines and inside the lavatory/ Kitchen etc.

6. After laying and jointing the Pipes and fittings shall be inspected under working condition of pressure and flow. Any joint found leaking pipes should be removed and replaced without extra cost. The Pipes and Fittings after they are laid shall be tested to hydraulic pressure of 6 Kg/ cm². The test pressure should maintain without loss of for at least half an hour.

7. Painting

On completion of the test, the exposed pipes and fittings are to be painted with two coats of synthetic enamel paint of approved colour and brand over a coat of priming.

8. Measurement

The length shall be measured in running meter correct to centimeter for the finished work, which shall include the Pipes and fittings such as Bends, Tees, Elbows etc., but excludes Brass or Gun-metal fixture like Tap, Cocks, Valves, PVC connection Pipes etc.

9. Jointing

The jointing of G.I. tubes/ pvc pipes and fittings etc. will be done as per the provisions stipulated in the B.I.S specification.

10. Bib cock and Stop Cock

These shall conform to I : S 781 - 1967 and bear ISI Mark. The Bib cock is a draw off tap with a horizontal inlet and free outlet and stopcock is a valve with a suitable means of connection for insertion in a pipeline for controlling or stopping the flow. This shall be of screw down type. The cocks shall open in anti-clockwise direction. The stopcocks should be C.P concealed stopcocks and C.P angle valves type as specified in tender schedule. Bib cocks should be also C.P Brass bib cocks.

11. Full way Valve (Brass)

Full way valve is a valve with suitable means of connection for insertion in a pipeline for controlling or stepping the flow. The valve shall be of brass fitted with a cast iron wheel and shall be of gate valve type conforming to I: S 780-1960 brass rod latest one, opening full way and of the size as specified

The approximate weight of the valves is indicated below for guidance.

Pipe size in mm	Flanged End valves in Kg	Screwed End valve in Kg
15mm	1.021	0.567
20mm	1.503	0.68
25mm	2.498	1.077
32mm	5.232	1.559
40mm	6.082	2.268
50mm	6.691	3.232

12. Gun-Metal Full way Valve

This shall be of the Gunmetal fitted with wheel and shall be of Gate-Valve type opening full way. This shall conform to I: S 778-1971. Class I. The valves should bear I.S.I. Mark

13. Ball Valve

The ball valve shall be high or low pressure class as stipulated in the Tender Schedule and shall conform to I : S 1703 - 1968. The nominal size of ball valve shall be that corresponding to the size of Pipe for which it is used. The ball valve shall be of brass or gunmetal and the float for low pressure in Polyethylene and for high pressure in copper.

Each and every ball valve while in closed position shall withstand an internally applied hydraulic pressure of 20 Kg/Cm² for a minimum period of two minutes without leakage or sweating.

Every high pressure ball valve when assemble in working condition, with the float immersed to not more than half its volume shall remain closed against a test pressure of 10.5 Kg/Cm².

Polyethylene floats shall be watertight and non-absorbent and shall not contaminate water and with no jointing adhesive jointing parts.

The minimum thickness of the copper sheet used for making copper floats shall be of 0.45 mm. The thickness of materials of the float shall be uniform throughout.

14. CUTTING HOLES UPTO 30 CM X 30 CM IN WALLS INCLUDING MAKING GOOD THE SAME;

General: - Square holes of size as specified or as directed by the Engineer-in-charge shall be cut in the masonry or taking pipes. Any damage to the adjoining portion or to any other item shall be made good as directed by the Engineer-in-charge. All dismantled material shall be removed from the site.

Masonry works: - Bricks work etc, shall be made good by using the same class of brick, tile or stone masonry as was cut during the execution of the work. The mortar to be used shall be cement mortar (1:4) as directed by the Engineer-in-charge.

Finishing: - Cement mortar in 1:4 mix shall be used for plastering or pointing as may be required. The surface shall be finished with two or more coats of white wash/colour wash/

distemper/ painting as required but where the surface is not to be white washed, colour washed, distempered or painted, it shall be finished smooth with a floating coat of neat cement or is required to match with the surrounding surfaces.

The specifications for brickwork, stonework and finishing etc. shall be the same as detailed under relevant standards of State P.W.D. specification.

15. CUTTING HOLES UPTO 15 CM X 15 CM IN RCC FLOORS INCLUDING MAKING GOOD THE SAME;

General: - Square holes of size as specified shall be in R.C.C. floor and roofs/chajjas for passing pipes etc. Any damage to the adjoining portion or to any other item shall be made good as directed by the Engineer-in-charge. All the dismantled material shall be removed from the site.

Cement Concrete: - After insertion of pipes etc. the hole shall be repaired with cement concrete 1:2:4 and the surface finished to match the existing surface. The top and bottom shall be finished properly to make the joint leak-proof. The specifications for cement concrete work and finishing etc. shall be the same as detailed under relevant sub-heads of State P.W.D. Specifications.

16. Shower rose

The shower rose: - The shower rose shall be of chromium-plated brass of specified diameter. It shall have uniform performance. The inlet size shall be 15 mm or 20 mm as required.

The chromium plating wherever specified shall be of grade-B type conforming to IS No. 1068 – 1958. The chromium shall never be deposited on brass unless a heavy coating of nickel is interposed. In the case of iron, a thick coat of copper shall first be applied, then one of nickel and finally the chromium. In finish and appearance, the plated articles, when inspected shall be free from plating defects such as blisters, pits, roughness and unplated areas and shall not be stained or discovered.

A stopcock of the specified size shall be provided to control the inlet water supply to the shower rose.

(a) Height of shower 1850 to 2000 mm from floor level.

(b) Height of tap: - 450mm from floor level projecting 150mm from wall.

Flushing Cistern:

17.

The flushing of the Indian water closet (Orissa closet) shall be done by C.I. or polystyrene high level valve less syphonic flushing cistern (PVC low level cistern) of approved brand and quality I.S.I. marked and capacity as specified. The connection between the cistern and water closet shall be made by 32mm dia G.I. flush pipe, made from G.I. pipe (Light quality) or 32mm dia PVC pipe as specified in the tender schedule. The flush pipe with an offset should be fixed to wall using C.I. holder bat clamps. The capacity of the cistern should be 10ltrs. As per I.S.S. The cistern shall be fixed on cast iron or rolled steel/PVC cantilever brackets (built in type), which shall be firmly embedded screwed in the wall, with C.C. M20. The cistern shall be provided with 20mm dia PVC. Overflow pipe with fittings, which shall terminate into mosquito proof coupling secured in a manner that will permit it to be readily cleaned or renewed.

The 32mm dia flush pipe shall be connected to the water closet by means of approved type joint. The flush pipe shall be fixed to the wall by using C.I. holder bat clamps. The bend and the offset as required in the flush pipe shall be made cold. The inside of the C.I. Cistern shall be painted with two coats of approved black bitumen paint. The outer face of the C.I. cistern, brackets overflow pipe and flush pipe etc., shall be painted with two coats of any synthetic enamel paint of approved shade and make, over a coat of priming. The cost of the painting shall be included in the rate quoted for the flushing cistern.

The inlet connection to the cistern shall be made with 450mm long 15mm dia PVC heavy type connection pipe.

B. **SOIL AND WASTE PIPES AND FITTINGS**

(a) These should conform to IS: 1729 – 1964 or its latest revision.

(b) The pipes and fittings should be true to shape smooth, cylindrical, inner and outer surfaces being concentric, free from cracks and pin holes and neatly dressed. The ends of the pipes and

fittings shall be square to their axes.

(c) Pipes are available with or without ear single socketed or double socketed. These should be procured as per requirement. Usual length of the pipes are 1.8 m but available in specific lengths, if so, ordered.

(d) Weights and other physical criteria including tolerances are stated in Table – 1.

(e) LAYING: - The laying is done by spigot – socket joints. The exact lengths are measured at the site, pipes are cut to sizes, if exact lengths of cut pieces are not readily available. In the stack lines, pipes with ears are used. The stack line is fixed to the wall with the help of 100 mm stout nails driven into wooden blocks fixed in the walls properly secured.

(f) JOINTING: - Jointing is made with the help of spun yarn and cement mortar (1:2). In certain places molten lead is used instead of cement mortar. Where molten lead is used, caulking is done after lead gets cooled.

(g) VENTILATION PIPES: - It should be carried up above the roof (at least 1 m above the parapet) and guarded with provision of a cowl. The stack lines must be secured to the walls by means of M.S. stay and clamps.

(h) Provision of doors in the fittings is a must so as to clean the line wherever required. The doors must be fitted along with rubber insertion and brass bolts.

(i) The lavatory waste stack shall be connected directly to the Inspection Chamber / Man hole whereas the wastes from kitchens, basins, sinks, baths are to discharge through gully traps, the gully traps being connected ultimately to Inspection Chamber / Manhole.

(j) Pipes and fittings must be internally painted with a coat – tar and externally with enamel paint of approved colour.

All soil-waste, vent and anti-siphonage pipes and fittings shall conform to I.S. 1729 – 1964 or as revised from time to time. The pipes shall have spigot and socket ends with bend on spigot end. The pipes and fittings shall be true to shape, smooth and cylindrical, their inner and outer surface being as nearly as practicable concentric. They shall be sound and nicely cast and shall be free from cracks, laps pinholes or other imperfection and shall be neatly dressed and carefully fettled.

The ends of pipes and fittings shall be reasonably square to their axes.

The sand cast iron pipes shall be of the dia as specified in the description of the item and shall be in length of 1.5m, 1.8m and 2m including sockets ends of the pipes unless shorter lengths are either specified or required at junctions etc. The pipes and fittings shall be supplied without ears unless specified or directed otherwise.

All pipes and fittings shall ring clearly when struck over with a light hand hammer, and shall be capable of being easily worked with drill or bib.

TOLERANCES:- The standard weights and thickness of pipes shall be as shown in the following table. A tolerance up to minus 10% may however, be allowed against these standard weights.

TABLE 1

Table showing the standard weight and thickness of SCI / HCI pipes

Sl. No.	Nominal dia of bore(In mm)	Thickness in mm.	Overall weight of pipe excluding ears (in Kg)		
			1.5 m	1.8 m	2.0 m
01	100	5.00	18.14	21.67	24.15
02	50	5.00	9.50	11.41	12.67

A tolerance up to minus 15 percent in thickness and 20mm in length will be allowed. For fittings, tolerance in length shall be plus 25 mm minus 10 mm.

The thickness of fittings and their socket and spigot dimensions shall conform to the

thickness and dimensions specified for the corresponding sizes of straight pipes. The tolerances in weights and thickness shall be the same as for straight pipes.

The access door fittings shall be designed so as to avoid dead spaces to avoid accumulation of filth. Doors shall be provided with 3 mm rubber insertion packing land when closed and bolted these shall be watertight.

SAND CAST IRON FLOOR TRAP: - Sand cast iron floor trap shall be P' or S' type with minimum 50 mm seal and shall be of self-cleansing design.

FIXING AND JOINTING: - The pipes and fittings shall be fixed in vertical alignment unless otherwise specified and shall be secured to the walls at all joints with M.S. holder butt6 clamps. The clamps shall be made from 1.6 mm thick M.S. sheet of 30 mm width, bent to the required shape and size so as to fit tightly on the socket of the pipe, when tightened with screw bolts. It shall be formed out of two semicircular pieces hinged with 6 mm diaM .S. pin on one side and provided with flanged ends on the other side with holes to fit in the screw bolt and nut 40 mm long. The clamp shall be provided with a hook made out of 275 mm long 10 mm diameter M.S.bar riveted to the ring at the centre of one semicircular piece. The clamps shall be fixed to the wall by embedding their hooks in cement concrete blocks 100 mm x 100 mm x 100 mm , 1:2:4 mix for which necessary holes shall be made in the wall at proper places. The clamps shall be kept about 25 mm clear of finished face of wall, so as to facilitate cleaning and painting the pipes.

The pipes shall be fixed vertically. The spigot of the upper pipe shall be properly fitted in the socket of the lower pipes such that there is uniform annular space for filling with the jointing material. The annular space between the spigot and socket shall be filled with a few turns of spun yarn socked in cement slurry or blown bitumen grade 85 / 25 or lead caulked. Caulking tools shall press these home. More skins of yard shall be wrapped, if necessary, and shall be rammed home. The joint shall then be filled with stiff cement mortar (1:2) well pressed with caulking tools and finished smooth at top at an angle of 45 degree sloping up. The joint shall be kept wet at least for seven days by tying four folds of gunny bag to the pipe and keeping it moist constantly.

Where pipes are embedded in masonry these shall be fixed in the masonry work as it proceeds. The pipe shall be kept vertical or to the line as directed by the Engineer-in-charge. The pipe shall have a minimum surrounding of 12mm thick cement mortar at every portion of external surface. The mortar shall be of the mix as used in masonry work. The length shall be caulked in with lead as soon as the next length of pipe placed in position. The open end (socket end) of the pipe shall be kept closed till; the next length of pipe is fitted and jointed to prevent any brick bat or concrete or pieces of wood falling in and chocking the pipe.

The spigot end shall butt the shoulder of the socket and leave no gap in between. The annular space between the socket and spigot will be first well packed in with spun-yarn leaving 25 mm from the lip of the socket for the lead. The joints shall then be lead caulked as described in detail under jointing of C.I. S/S pipes with lead joints in public W/S section of this specification. Pipes with ears shall be secured with 40 mm bore steel or iron barrel distance pieces or bobbins and stout C.I. / M.S. nails 10 cm long driven into hard wood plugs fixed in walls. Access doors to fittings shall be provided with 3 mm thick rubber insertion packing and received with screws to make them air / water tight.

All soil pipes shall be carried up above the roof and shall have a wire baboon guard or a cowl as specified.

HEIGHT OF VENTILATION PIPES: - All soil pipes shall be carried up above the roof and shall have sand cast iron terminal guard. The ventilating pipe or shaft shall be carried to a height of at least 1 mtr. above the outer covering of the roof of the building or in the case of a window in a gable wall or a dormer window it shall be carried up to the ridge of the roof or at least 2 metres above the top of the window. In the case of a flat roof to which access for use is provided, it shall be carried upto a height of at least 1 mtr. above the parapet or 2 metres above the roof whichever is greater and shall not terminate within 2 metres measured vertically from the top of any window or opening which may exist upto horizontal distance of 5 metres from the vent pipe into such building and in no case shall be carried to a height less than 3 metres above plinth level.

Where ventilating pipes are carried in pipe shafts, the shaft shall be of a minimum size

of 1 metre x 1 metre. If shafts are also used to give light and air to rooms, the ventilating pipe must be carried to a horizontal distance at roof level of not less than 5 metres from the side of the shaft. The payment for the shaft be made separately.

The pipes above the parapet shall be secured to the wall by means of M.S. stay and clamps as explained below.

M.S. STAYS AND CLAMPS: - Sand cast iron pipes above parapet shall be fixed with M.S. clamps and stays. The clamps shall be made from 1.5mm thick M.S. flat of 32 mm width, bend to the required shape and size to fit tightly on the socket, when tightened with screw bolts. It shall be formed of two semicircular pieces with flanged ends on both sides with holes to fit in the screw bolts and nuts, 40 mm long. The stay shall be minimum one meter long of 10 mm dia M.S. bar. One end of the stay shall be bent to form a hook to be fixed with the clamps by means of bolt and nut and the other end shall be bent for embedding in the wall in the cement concrete block of size 20 cm x 10 cm x 10 cm in 1:2:4 mix. The concrete shall be finished to match with the surrounding surfaces.

OTHER DETAILS: - The connection between the main pipe and branch pipes shall be made by using branches and bends with access door for cleaning.

Floor traps shall be provided with 25 mm dia puff pipe where length of the wastes is more than 180 cm or the floor trap is connected to a waste stack through bends.

The waste from lavatories, kitchens, basins, sinks, baths and other floor traps shall be separately connected to respective waste stack of inspection chamber / upper floors. The waste stack of lavatories will be connected directly to manhole while the waste stack of others shall separately discharge over fully trap.

Every starting manhole shall have a 100 mm sand cast iron vent, terminating at 1 mtr above the parapet of the building.

The main anti-siphonage pipe shall be of 50 mm internal diameter. When more than one branch from water closet / sink are connected with the soil pipe and discharge into it, anti-siphonage from the lowest one should pass through the wall and be carried up outside the building parallel to the soil pipe to a point 1.5 metres minimum above the highest branch. It can then be connected to the soil pipe or it can be carried in dependently. The anti-siphonage pipes of all the intermediate floors, water closets should be joined with the main anti-siphonage pipe. The ventilating pipe shall have internal diameter of not less than 50 mm in all parts and shall be connected with arm of soil pipe on trap through a 45 degree branch, at a point not less than 7.5 cm and not more than 30 cm from the highest part of the trap and on the side of the water seal which is nearest to the soil pipe the jointing shall be done according to the specification for piping materials used in soil, vent or waste pipes.

Joints shall be filled and caulked as described under sub-head "water supply". The depth of lead from the lip of the pipe socket shall be 25 mm.

TESTING: - All sand cast iron pipes and fittings including joints shall be tested by a smoke test to the satisfaction of the Engineer-in-charge and left in working order after completion. The smoke test shall be carried out as stated under.

Smoke shall be pumped into the pipe at the lowest end from a smoke machine, which consists of a bellow and burner. The material usually burnt is greasy cotton waste, which gives out a clear pungent smoke, which is easily detectable by sight as well as by smell if there is leakage at any point of the drain.

PAINTING: - All the sand cast iron pipes and fittings shall be painted with colours with two coats of paint over a coat of primer on exposed surfaces as directed by the Engineer-in-charge. Besides, the sand cast iron pipes and fittings shall be painted with a coat of coal tar to the inside surfaces before laying and jointing of pipes and fittings. The specification for painting as described in the relevant sub-heads of Orissa State P.W.D. specification and revised from time to time shall apply in this case also.

REQUIREMENTS OF JOINTING MATERIALS FOR H.C.I. BUILDING PIPES AND FITTINGS;

The requirement of jointing materials like cement, gasket for Hard Cast Iron pipes and fittings is indicated in the table below.

TABLE

Table showing the requirement of jointing materials for HCI building pipes and fittings.

1. REQUIREMENT OF LEAD AND GASKET CEMENT
FOR JOINTING H.C.I. PIPES (EACH JOINT)

Dia of pipe in In mm	lead in Kg.	Gasket In Kg(same for Lead and cement Joints)	Cement Kg.
100	1.2	0.13	0.12
50	0.36	0.06	0.06

C. Sanitary Ware & Allied Fittings:

1. General:

All sanitary fixtures and their allied fittings should be of first quality, manufactured by reputed manufacture Hindware/ E.I.D. Parry Ltd./Nycer /Madhusudan ceramics or equivalent. These should be approved by the consultant / Engineer-in-charge before use.

2. Squatting pattern W.C. pan (Orissa pattern Closets):

The water closets shall be of vitreous china of specified size and pattern, integral flushing rim. It shall have the flushing inlet at the back. The Orissa closets should be of approved quality confirming to I: S: S: -2556(part-III).

The squatting type Indian water closets (Orissa closet) shall be sunk in floor sloped towards the pan in a workmanship like manner. The closet shall be fixed on a proper cement concrete base of 1:3:6 proportions, taking care that the cushion is uniform and even without closet, to receive the specified thickness of the floor finishing. The joint between the closet and the P.V.C. (S.W.R.). Trap shall be made with W.C. ring and rubber lubricant and shall be of leak proof.

3. Wash Hand Basin:

The wash hand basin shall be of the white vitreous china of approved quality, make and brand I.S.I. marked. It shall be one-piece construction with an integral combined overflow. The size of the basin shall be specified. Each basin shall be provided with one 15mm dia C.P. Brass pillar Tap, 32mm dia C.P waste C.P. chain and rubber plug, unions, joints, C.P. Bottle trap casted PVC waste pipe complete in all respects of approved quality.

The basin shall be supported on a pair of R.S. or C.I cantilever brackets (built in type)m embedded and fixed in wall with cement concrete, M20. These brackets shall be painted to the required shade with two coats of synthetic enamel paint over coat of priming. The waste of the basin shall discharge into a floor trap or channel through bottle traps PVC waste pipe as specified. One 32mm dia C.P. bottle trap is to be fixed to the waste of the basin, & the outlet of the bottle trap is to be connected to the waste pipe, to discharge the waste to the - 164 -foresaid floor trap. The inlet connection to the basin shall be made with 450mm long 15mm dia heavy type P.V.C. connection pipe.

4. Kitchen Sink:

Unless otherwise mentioned the kitchen sink and drain board (if used) shall be of white vitreous china or fire clay as specified and of approved quality, make and brand, confirming to I.S.S. It shall be one-piece construction with integral combined overflow. The size of the sink and drain board shall be specified.

Each sink shall be provided with 15mm dia C.P. brass, Bib Cock, long body 40mm C.P. waste with overflow C.P chain and rubber plug, unions etc. , complete in all respects as specified and of approved quality.

The sink shall be supported on a pair of M.S. or C.I. cantilever brackets (built in type) embedded or fixed in position in the wall by cement concrete M20. The brackets shall be painted to required shade with two coats of approved synthetic enamel paint over a coat of priming. The waste should discharge into a floor trap or channel. The waste pipe should be 40mm dia PVC

pipe jointed to the waste of the sink with a brass union nut.

5. Standing Urinals

The urinals shall be flat pattern lipped front basin of required dimension of white/coloured vitreous china and one piece construction with internal flushing box, rim of an approved make and brand as specified. It shall be fixed in the position by using wooden plug embedded in the wall with screws of proper size. Each urinal shall be connected to a 40mm dia PVC waste pipe, which shall discharge into a channel or floor trap. The lip of urinal shall be kept at 525mm from floor level, while fixing the urinal on the wall.

Where no of urinals are fixed in a line, the distance between the center to center of each urinal shall be kept 750mm and each urinal should be separated from one to other by a partition plate. The center-to-center partition plates shall be kept 750mm.

The partition plates shall be of one-piece kota stone plates, cut to size or partition wall and front corners rounded. The partition plates are embedded in wall with cement concrete and finished smooth. The bottom of the partition plates should be kept 500mm above floor level and top should be kept at 1250 mm above floor level. The plates should project 600mm from wall surface. The width of the plates should be embedded inside the wall and should not be less than 100mm. The thickness of the plates shall be minimum of 25 mm to 32 mm. Thickness of partition wall should be limited to 150mm including smooth surface finishing.

For flushing the urinals each urinal shall be, connected with one 20mm dia G.I. Pipe (Medium class). One end of each of this pipe 15mm PVC connection pipe shall be inserted into the inlet of the Urinal and jointed with jute and putty where as the other end is connected either with a tee or bend with water pipe line fixed on the wall horizontal above the urinals. In each 20mm dia flush pipe, one 20 mm dia gunmetal gate valve angle stopcock to be fixed. By opening this valve, the water will flow to the rims of urinal through the inlet pipe and flush the urinal. After flush, the valve can be closed to avoid wastage of water. One 40mm dia P.V.C. waste pipe shall be connected to the waste of each urinal, to discharge the waste into the channel or trap. One end of this waste pipe shall be made a cup size to fit into the projected waste and tightened with screws and waste clamp.

6. Squatting Urinal Plates:

The urinal plates shall be of white glazed vitreous china with integral flushing rim of size 450mm X 350mm of approved make and brand as specified. There shall be white vitreous channel with stop and outlet pieces in the front. These plates shall be fixed on C.C. at 75mm to 100mm above floor level.

For flushing arrangement, one 25mm dia G.I. common water pipeline (minimum size) shall be fixed on the wall parallel to floor. For each urinal one 20mm dia G.I. Branch pipe shall be taken down upto 12mm from floor level just at the center of each plate, in which one 20mm dia gate valves is fixed at 1500mm above floor level. At 1200m heights, the 20mm dia flash pipe shall be divided into two branches with a tee and fixed horizontal. 300mm on either side and then with the help of elbows, both the branches shall be taken downward and connected to the inlets of the urinal plates at floor level. By operating the valve as above, the water will rush into the rims of the urinal plate and flush it.

Where there are number of Urinals fixed in a line, each Urinal should be separated by a partition plate fixed in the centre of two Urinal Plates. The centre to centre distance of the partition places shall be kept 750mm minimum.

The partition plates shall be of one-piece kota stone plate, 25 mm to 52mm thick, cut to sizes and front corners rounded. The plates are embedded in wall with cement concrete and finished smooth. The bottom of the partition plates wall shall be kept flushed to Urinal top level, the top level shall be kept at 1200mm from the Urinal Plate top and the projection form the wall shall be 600mm. The width of the plate to be embedded inside the wall should not be less than 100mm.

7. M I R R O R:

Materials: - The mirror shall be of superior glass with edges rounded off or leveled as specified. It shall be free from flaws, specks or bubbles. The size of the mirror shall be 60 mm x 45 mm unless specified otherwise and its thickness shall be not less than 6mm.

The glass for the mirror shall be uniformly silver plated at the back and shall be free from silvering defects. Silvering shall have a protective uniform covering of red lead pain.

Fixing: - The mirror shall be mounted on 6 mm thick plain asbestos sheet ground and

shall be fixed on the position by means of CP brass screws and CP brass washers, over rubber washers and wooden plugs firmly embedded in the wall. CP brass clamps with CP brass screws may be alternative methods of fixing where so directed. Chromium plating shall be of grade "B" type conforming to IS 1069-1958 or as revised from time to time. Unless specified otherwise, the longer side shall be fixed horizontally. The height of the bottom edge of the mirror shall generally be 120 cm above the floor level unless otherwise specified.

8. Glass shelf unit

The shelf shall be of glass of best quality with edges rounded off, and shall be free from flaws, specks or bubbles. The size of the shelf shall be 60 cm x 120 cm. Unless otherwise specified and thickness not less than 6 mm. The shelf shall have CP brass guardrail resting on rubber washers on the glass plate and CP brass brackets which shall be fixed with CP brass screws to wooden plug firmly embedded in the walls. Chromium plating shall be of grade "B" type conforming to IS 1068-1958 or as revised from time to time. The height of the glass shelf above the floor level shall be 115 cm unless otherwise specified.

GENERAL

The works shall be performed conforming to the Indian Standard codes, P.H.D & P.W.D. specifications of the State Government. Wherever such specifications are not available, CPWD specifications, relevant references, manuals etc. shall be followed as directed by Owner. For Horticulture and landscaping works CPWD-Delhi Schedule of Rates, Analysis of Rate and Specifications (Horticulture & Landscaping) 2014 shall be followed.

1.2 General specification: (Civil & Architectural work)

Works shall be performed considering following points in addition to specification mentioned whichever is more stringent.

1. Cement shall not be less than OPC-43 grade/PPC/PSC-53 grade of reputed manufactures confirming to relevant IS Specification.
2. Reinforcement to confirm FE-500(D) HYSD Steel and IS:1786.
3. As & when required, the steel/cement & other building materials will be tested by Department at the cost of contractor to ensure proper quality as per IS specification.
4. Machine mix shall be used in concrete work for all structure. Design mix of concrete will be preferred. Vibrator of appropriate type shall be used for compaction of concrete.
5. All the structures are to be designed as permanent type and shall have aesthetic elevation.
6. Form work shall be of steel plates and frame, sound seasoned timber or any approved materials as decided by Engineer-in-charge to be used for the centring and shuttering of the structures.
7. Bricks should conform to IS: 1077. Fly Ash bricks in cement mortar (1:4) in foundation and plinth. All non-load bearing outer walls shall be minimum-230 mm thick & inside partition walls shall be minimum 125 mm thick. Fly Ash bricks in cement mortar (1:4) in superstructure.
8. The testing for water tightness of the structures shall be conducted as per IS: 3370 and the results shall have to satisfy the relevant provisions of the above code.
9. All reinforcement shall be checked and recorded prior to concreting by the Engineer-in-charge or his representative and the contractor shall countersign this. Entire concreting work shall be done in the presence of an officer not below the rank of Junior Engineer, The contractor shall, therefore, give notice of at least two days to the Engineer-in-charge or his representative so that the works can be checked by him or his authorised representative.
10. The joints in the form work shall be arranged in a regular pattern.
11. Shuttering shall be provided to concrete faces where the slope exceeds 1: 2½.
12. The stripping time of all form work shall be in accordance with recommendations contained in IS: 456.
13. The exposed faces of concrete shall be true to line have smooth surface and without roughness occurring between successive sections of shuttering. In removal of forms, minor uneven surface defects shall be picked out to such a depth, refilled and properly replaced with such class concrete as necessary. All pin holes shall be plugged.
14. The surface of non-shuttered faces of concrete shall be finished with a wooden float to give a

finish equal to that of the rubbed down shuttered faces. The top faces of slabs not intended to be surfaced shall be leveled and floated to a smooth finish.

15. The surplus earth and debris should be lifted after completion of work and proper levelling of site as directed by Engineer-in-charge without any extra claim.

16. All the work including supply of materials to be executed as per relevant IS specification and direction of Engineer-in-charge.

17. All foundation, superstructure, construction etc. including all mechanical, electrical & civil engineering works covered under the scope of work of contractor shall be subjected to inspection & testing by the Department for its material, quality, workmanship and the performance. The contractor shall arrange and carryout all such inspection, testing, trial run etc. and demonstrate in presence of the Engineer-in-charge of the Department.

18. The cost of such inspection, testing, trial run, demonstration etc. shall be borne by the contractor. All responsibility of such inspection, testing, trial run, demonstration etc. and any damage/loss that may cause directly or indirectly shall exclusively rest with the contractor.

19. Such inspection, testing, demonstration etc. shall, however, not relieve the contractor of their liability for replacing/rectifying any defects, which may subsequently appear or be detected during erection and guarantee period.

20. Water bound macadam sub-base (Over burnt Jhama brick aggregate 90 mm to 45 mm) with brick aggregate and blinding material, earth etc. including screening, sorting and spreading to template and consolidation with light power road-roller etc.

SPECIFICATION FOR PLAY EQUIPMENT AND OUT DOOR FITNESS EQUIPMENT.

All play equipment and Out Door Fitness Equipment shall be as per specification, of approved quality and procured from manufacturers approved by Owner.

A. Fiber Reinforced Plastics (FRP) :

For children play equipment all the **Fiber Reinforced Plastics (FRP)** (minimum 4-5 mm thick) materials shall be processed by the hand laid process as follows:

1. After the preparation of the mould a layer of gel coat (tested as per IS 6746:1994) shall be applied which shall be of N.P.G duly mixed with U.V stabilized pigment to give the required colour to the product.

2. Then a coat of G.P resin tested (as per standard IS 6746: 1994) shall be applied above the surface of the gel coat after it becomes tack free.

3. The constitutive layers of C.S.M (chopped strand matt) as per IS 11551-1996, glass fiber shall be laid down along with resin to the required extent to build up the required thickness in sandwich pattern.

4. The back side coating of the resin shall be done to give a smooth finish.

5. The mould shall be kept open to dry for a specified duration for strengthened the F.R.P

6. After the mould is completely cured FRP shall be removed from the mould.

Then all the corners and edges of it shall ground to make them smooth and harmless from the strands of the glass wool.

B. PIPES & NUT BOLTS

1. All SS Nut Bolts shall confirm conforming to ASTM E-1086 : 1994

2. All metal shall confirm to Indian standard and shall be powder coated (60 micron) in desired shades.

3. Galvanized pipe shall confirm to IS 1239

4. All required nuts, bolts are included in items

C. THIRD PARTY INSPECTION AND TESTS

1. Third party inspection and testing of play equipment and outdoor fitness equipment shall be done as desired by OWNER. Contractor shall make all necessary arrangement for this.

2. The inspection and tests as required shall be done in the presence of OWNER's representative if so desired by OWNER.

3. Generally the following parameters shall be covered in inspection and testing

Dimensions ,Material Quality , Performance requirement as / EN 1176 (Playground Equipment Standard) EN 16630 (Permanently installed outdoor fitness equipment. Safety requirements and test methods)

4 Necessary testing of samples shall be done in Government or Government designated/ NABL (Nation Accreditation Board for testing and calibration laboratories) accredited Laboratories and

during factory visits. The cost of testing & inspection shall be borne by the contractor. No extra payment shall be paid by OWNER on this account.

5 In case defects are observed in the Equipment a performance Notice Shall be issued by the OWNER giving suitable time required for rectification of the defects, not exceeding 15 days from the date of notice, failing which Rejection Notes shall be issued to enable the CLIENT to proceed with further contractual action.

6. No extra payment on account of testing and inspection shall be paid by the OWNER. The rates in SOR are deemed to be inclusive of all the above activates as well.

6.1 TECHNICAL DATA SHEET

AS DETAILED IN THE BILL OF QUANTITY WITH DUE REGARDS TO THE DETAILED SPECIFICATION OF PWD / PHD / BIS / ISI SPECIFICATIONS

6.2 Test for material/ Workmanship

All tests required for all bought out materials a desired by the Engineer-in-Charge shall be carried out by the contractor as per relevant IS code and at his own cost in the presence of authorized representative of the Engineer-in-Charge.

6.3 Specifications

The detailed specifications as per IS codes and OPWD specifications are intended for the general description of the work, quality and workmanship. All work is to be carried out according to the specifications.

6.4 Wherever reference to the standard codes of practice etc. is made, they shall be taken as the latest edition of the same issued within one month before the date of submission of the tender.

6.5 Safety Measures

In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this agreement, the contractor shall at his own expense arrange for the safety provision as per IS code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make the above arrangement Engineer-in-Charge shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost incurred on his behalf from the contractor.

The contractor shall ensure the safety of men, material, machinery, existing structure and any other facilities. Since the work is to be done on road/ lanes/ by lanes, all necessary safety arrangements including proper barricading etc. shall be done by the contractor.

The contractor shall be absolutely and solely responsible for any accident that may accident that may occur during the progress of the work and for injury or damage to the men, materials, machinery, existing structure and any other facilities of any description whatsoever which may be causes by or result from the execution of work. The contractor shall make good any damage due to accident or pay any claim arising out of accident and will indemnify the employer of expenses on account thereof. No separate payment shall be made for safety measures.

6.6 Storage and handling of materials:

The protection all material and machinery from dirt, clay, rust, theft or damage at any stage of the project is the responsibility of the contractor and no claim will entertained in this regard.

6.7

- a) The agency has to submit Bar chart along with the tender.
- b) Disposal of surplus Earth & Debris after construction:
The surplus left over earth and debris after completion of work and levelling the site shall be transported and dumped in areas within 5 K.M and as directed by the Department's Engineer without any extra claim.

6.8 Tests at site:

- On completion of all nature of works covered under the scope of work of the contractor shall be tested to demonstrate their smooth operation and proper functioning. All defective items or any defects observed during the test shall be replaced and / or rectified by the contractor and test shall be repeated.
- The contractor shall also carry out at site, any tests, which may be required by the State/ Central Government, State Pollution control & prevention Board and /or any other Statutory Body.

6.9 Guarantee:

The Contractor shall guarantee the materials, quality, workmanship and the satisfactory performance of all the accessories, auxiliaries, piping etc. under his scope of work for a period of **12 (twelve) months** from the date of final commissioning. Any defects noticed during the guarantee period shall be replaced/ rectified immediately without any extra cost to the Department

6.10 Acceptance:

On completion of construction, the contractor shall clear all the left over surplus earth, bricks, debris, scrap, temporary structures etc. from the construction site and present the entire premises in a neat and tidy manner. All units, equipments, pipe lines etc. shall be cleaned thoroughly.

6.11 Final Acceptance:

On completion of **Six(6) months** of satisfactory performance, the works executed shall be finally accepted by the department. This shall be treated as the date of final commissioning.

6.12

a. Services to be provided by the contractor:

- i) The contractor shall open a fully furnished site office with all necessary facilities having office equipment such as computer, printer etc. A separate room shall be provided to the Engineer-in-Charge or its representative.
- ii) The contractor will make necessary arrangement for installation power and installation water.
- iii) The contractor shall make necessary arrangement for all the testing and inspection to be conducted in a manner as specified in the specifications and as per codes.
- iv) Transportation of all equipment / raw material/ spares from manufacturers work to the project site, inclusive of all intermediate handling and unloading/ storage at site and all taxes, octroi, etc.
- v) Supply, erection as per manufactures recommendations/ specifications, inspection, testing, start up and running of the equipment during trial run/ performance guarantee period at rated capacity and speed.

- vi) During defect liability period of one year the contractor has to replace any equipment component, etc. For manufacturing defect, malfunctioning and below rated performance. He will make good any structure or part of it if found defective or becomes during functioning.
 - vii) The contractor shall also arrange technical experts of equipment from proprietary supplier as and when necessary till the commissioning, trial run and performance guarantee period of the equipment.
- b. The detailed scope of work has been mentioned in BoQ.
- c. Nothing extra over the quoted price shall be paid to contractor on account any financial implications of all the conditions and specifications. It will be treated that necessary financial provision and deemed to have been kept in the quoted price. Any contiguous item or any provision / requirement, if not included in the general specification and scope of work, special specification and detailed specification but necessary to be provided for the completion of the work and for its functional necessity, shall be provided at no extra cost above quoted price. The decision of the Engineer-in-Charge in such cases shall be final and binding on the contractor.

The time is the essence of this contract. The entire work described under "Scope of Work" elsewhere in the tender (Design, approval of design & drawings, execution and three months trial run) is to be completed within stipulated time

All provisions of the technical scope of work & terms & conditions of the contract have been read by Me/Us and I/We certify that I/We clearly understand them & agree to abide by them.

Witness

Contractor

SCHEDULE – AA

STRUCTURE & ORGANISATION

1. General Information

- a) Name of Applicant
- b) Head Office Address

e-Mail Address:

Telephone No.

Fax :

- c) Regional Office Address (if any)

- e-Mail Address:
Telephone No. Fax :
- d) Local Office (if any)
e-Mail Address:
Telephone No. Fax :
- e) Class of contractor / farm and year of incorporation
(attach copy of certificate of registration)
- f) Name and Address of Bankers
- g) Main Lines of Business
- h) Establishment details:

Signature of the bidder

SCHEDULE – BB

AFFIDAVIT DECLARATION BY THE TENDERER/BIDDER

1. I/We have visited the site and have fully been acquainted myself/ ourselves with the local situation regarding materials, labour and the factors pertaining to the work before submitting the tender.
2. I/We have carefully studied the conditions of the contract, specification and other documents of this work and I/We agree to execute the same accordingly.
3. I/We solemnly pledge that I/We shall be sincere in discharging my/our duties as responsible contractor and complete the work within the prescribed time limit. I/We shall submit detailed construction programme with target dates for various items and stages of work keeping in view the time limit and shall accordingly arrange for necessary labours, materials, and equipments etc., punctually. In case there are deviations from the construction programme, I/We shall abide by the decision of the Engineer-in-charge for revision of the programme and shall arrange for labour, materials, equipments etc
4. I/We shall follow all rules and regulations of the state in force with regard to engagement of labour for the work.
5. The documents furnished with the tender are correct to the best of my/our knowledge and belief and if any information found to be incorrect in future, the Department has the liberty to take any action as deemed fit.
6. Should this tender be accepted I/We hereby agree to abide by and fulfil all the terms and provisions of the said conditions and special conditions of the contract annexed hereto or in default thereof to forfeit and pay to the Governor of Odisha the sums of money mentioned in the said conditions and in the event of such default the transaction effected by this tender shall cease and determine.

Date:

Place:

Signature of the Tenderer

Name/Organisation

Seal

SCHEDULE -CC

AFFIDAVIT

1. I/We _____ certify that all information furnished is true and agree that my / our Tender shall be rejected if I / we am / are found to have misled or made false representation in the form of any of the Schedules of Supplementary information and / or statements submitted in proof of the eligibility and qualification requirements or if I / We have a record of poor performance such as absconding from work, works not properly completed as per contract, inordinate delays in completion, financial failure and / or has / have participated in previous Tendering for the same work/s and had quoted unreasonable high Tender premium. In addition I/we shall be blacklisted and the work be taken over invoking relevant clause of the General conditions of contract and conditions of particular application.
2. I/We _____ certify that no criminal cases are pending against me/us partners at the time of submitting the Tender.
3. I/We _____ accept that my / our Tender shall be rejected if any criminal cases are pending against me/us/partners of the firm at the time of submitting the Tender.
4. I/We _____ agree that if the history of litigation, criminal cases pending against me/us/Partners furnished by me/us is false, I / We _____ will attend by the action taken by the Cuttack Municipal Corporation / H&U.D. Deptt., without approaching any court whatsoever for redress. However, I/We shall be given suitable opportunity to offer my/our explanation before action is taken against me/us.
5. I/We _____ certify that the following addenda issued by the Executive Engineer, have been received by me/us and incorporated in my/ our Tender.
 1. _____ dated _____
 2. _____ dated _____
 3. _____ dated _____

(Add if the addenda issued are more than 3)
6. Further I/We _____ certify that no near relatives in the cadre of an Assistant Engineer or above are working in Cuttack Municipal Corporation.
7. I / We _____ certify that the technical specification for which I have quoted rate is as per the requirement of the DTCN.

Dated this day of 20.. ..

Signature in the capacity of duly authorized to sign the Tender for and on behalf of

... ..

(Block Capitals)

Signature of Witness:

Name of Witness:

Address of Witness:

SCHEDULE -DD

AFFIDAVIT

(Applicable for All Bidders)

2. I, Sri/Smt/Ms.....,Son / Daughter/Wife of, hereby declare as the Contractor/as the authorized signatory on behalf of the Contractor,"....."(**Strike out whichever is not applicable**) that, I/we am/are validly registered as Class Contractor under Govt. of Odisha.
2. It is hereby declared that I/we are not currently deprived from tendering in any Govt. Organisation including CMC and I/we have furnished the required eligibility documents as a valid tenderer for the above mentioned work.
3. I/We hereby authorise and request any bank, person, firm or organisation to furnish information to CMC as deemed necessary by it in connection with my/our eligibility criteria and document verification related to my/our tender for the work mentioned below. I/We also authorise CMC to refer, peruse, consider & correlate my/our documents submitted in connection with other tenders of CMC (if any) and I /we have no objection if such documents either in whole or part are perused, referred and considered.
7. The undersigned undertake to submit further information/ documents as may be requested for/required by CMC in connection with this tender within the stipulated period to be intimated by CMC either through letter or through my/our Telephone No. furnished below. Non-response to this instruction by me/us within the stipulated period shall render my/our tender as non-responsive/incomplete and hence CMC shall be at liberty to take any action as deemed fit against me/us as well as to cancel my/our tender for the work and I/we will have no claim against such decision of CMC.
8. My/our present address for correspondence is and my/our Telephone Contact number is.....and e-mail ID for correspondence is..... I/We shall promptly and voluntarily intimate the Tender Inviting Officer (Commissioner) about subsequent changes, if any, of my/our telephone number, e-mail ID and address for correspondence within a week from the date of occurrence of such change(s) falling which, I/we will be held responsible for any eventual delay/gap in correspondence(s)/communication(s) between me/us and CMC and subsequent follow-up action(s) and situation which may arise due to such delay/gap.
9. I/We hereby declare that all the information and documents furnished herewith by me/us in connection with my/our tender invited by CMC are true and correct.

(*) - Strike out which is not applicable

(Deponent)

(Signature of the Tenderer/Authorised Signatory in case of Partnership Firm/Company with Seal of the Firm/Company)

SCHEDULE -EE

AFFIDAVIT

(Applicable for SC/ST Bidders)

1. I/We, Sri/Smt/Ms.....,Son/Daughter/Wife of,
hereby declare that;
 - a. I am a registered Class ST/SC Contactor under Govt. of Odisha
or
 - b. The Partnership Firm/Private Ltd. Company named/titled, as “.....
.....” is a registered SC/ST Contractor under Govt. of Odisha within the ambit
specified in Works Department Resolution No.27748 dt.11.10.77 and I,
Sri/Smt/Ms.....,Son/Daughter/Wife of
....., is the authorized signatory on behalf of the Firm/Company (scanned
authorization copy with my signature duly certified and attested/identified has been
submitted on-line with our tender).
[Tick (a) or (b) above whichever is applicable and fill up accordingly.]
2. As per Works Department, Govt. of Odisha Resolution No.27748 dt.11.10.77, I/My
Firm am/is entitled for exemption of 50% EMD & ISD and accordingly, I/My Firm
have/has submitted tender for the work.
3. I/My Firm hereby submit willingness to avail price preference as ST/SC category Civil
Contractor as entitled in the aforesaid resolution.
4. Necessary documentary evidence(s) as prescribed in the Tender Notice at * and at Sl.2
to 4 (Information for the Intending Bidders) of Section-I of DTCN Part-I in support of
my/our aforesaid claim for exemption of EMD & ISD have/has been duly up-loaded
on-line/submitted along with my/our tender for the aforesaid work.
5. In addition to those, other documents and original(s), as required by Commissioner,
CMC to sustain my/our aforesaid claim shall be submitted by me/us within a week
from the date of instruction/intimation of Commissioner, CMC through
telephone/letter/e-mail failing which my/our tender shall be liable for rejection.

(*) - Strike out which is not applicable

(Deponent)

**(Signature of the Tenderer/Authorised Signatory in case of Partnership
Firm/Company with Seal of the Firm/Company)**

SCHEDULE -FF

AFFIDAVIT

(Applicable for Contractors with Physical Disabilities)

1. I, Sri / Smt / Ms.....,Son/Daughter/Wife of, hereby declare that I am a registered Class Contactor with Physical Disabilities within the ambit prescribed in Works Department, Odisha-Resolution No.23934 dt.8.11.91.
2. As per the said Resolution, I am entitled for exemption of EMD & ISD and accordingly, I have submitted tender for the work.
3. Necessary documentary evidence(s) as prescribed in the Tender Notice at * and at Sl.2 to 4 (Information for the Intending Bidders) of Section-I, DTCN Part-I in support of my aforesaid claim for exemption of EMD & ISD have/has been duly up-loaded on-line/submitted along with my tender for the work.
4. In addition to those, other documents and original(s), as required by Commissioner, CMC to sustain my aforesaid claim shall be submitted by me within a week from the date of instruction/intimation of Commissioner, CMC through telephone/letter/e-mail failing which my tender shall be liable for rejection.

(Deponent)

SCHEDULE –GG

AFFIDAVIT

(Applicable for the Bidders not Registered under EPF)

I, Sri/Smt/Ms....., hereby declare as the Contractor/as the authorized signatory on behalf of the Contractor,”.....”(strike out whichever is not applicable) do hereby solemnly affirm and state as follows.

1. That as on date, I/we am/are not registered with RPFC (Regional Provident Fund Commission), and solemnly affirm that, I/we shall follow the “**Employees Provident Fund and Misc. Provision Act, 1952 & rules / schemes**”, made there under, in case this work is awarded to me/us.
2. That I/we shall submit, after execution of work and before payment of any bill, the detail list of labours, such as,
 - (i) Name:
 - (ii) Father’s Name:
 - (iii) Place of Permanent Residence:
 - (iv) Statement of wages paid to them till the completion of the work
3. That, CMC authority will be at liberty to deduct **26%** of the labour component amount of the contract & shall retain it as an **additional security with CMC**.
4. That, in case I/we submit the EPF registration certificate, then the said additional security shall be released to me/us by CMC without any interest subject to fulfilment of other compliances / conditions.
5. That, this affidavit is required to be produced before the authority of Cuttack Municipal Corporation for tender purpose.
That the facts stated above are true to the best of my/our knowledge.

(*) - Strike out which is not applicable

(Deponent)

(Signature of the Tenderer/Authorised Signatory in case of Partnership Firm/Company with Seal of the Firm/Company)

SCHEDULE –HH

AFFIDAVIT

(Applicable for Engineer Contractors Intending to Avail Exemption of EMD & ISD as per OPWD Code)

- 1) I, Sri/Smt/Ms....., hereby declare as the Contractor/as the authorized signatory on behalf of the Contractor,"....."***(strike out whichever is not applicable)*** do hereby solemnly affirm and state as follows.
- 2) That, I/we am/are a registered Class Engineer Contractor.
- 3) That, I/we herewith claim exemption of EMD during the year.....for participation in the tender for this work.
- 4) That, I/we have not exhausted the facility available to me/us an Engineer Contractor during the year..... for exemption of EMD & ISD as per Works Deptt. Guideline & OPWD Code.
- 5) That, I/we shall ensure production of my/our valid Original Contractor's Registration Certificate (license) after or during opening of bids (as per direction of Commissioner) for the above work for verification and also for subsequent entry of exemption of EMD and ISD(if selected as the contractor for this work and availed the exemption of EMD and ISD in my/our license as per direction of Commissioner, within such time as directed by him failing which action, as decided by CMC, may be taken against me/us and appropriate steps may be taken by CMC to facilitate execution of the tendered work.

(*) - Strike out which is not applicable

(Deponent)

(Signature of the Tenderer/Authorised Signatory in case of Partnership Firm/Company with Seal of the Firm/Company)

SCHEDULE – II

FORM OF BID SECURITY (BANK GUARANTEE)

Beneficiary : _____

Date : _____

BID GUARANTEE No: _____

We have been informed that _____ (hereinafter called "the Bidder") has submitted to you its bid dated _____ (hereinafter called "the Bid") for the execution of _____ under Invitation of Bids No: _____ ("the IFB")

Furthermore, we understand that, according to your conditions, bids must be supported by a Bid Guarantee.

At the request of Bidder, We _____ (Name and address of the bank), hereby irrecoverably undertake to pay you any sum or sums not exceeding in total an amount of Rs. _____ (Rupees _____) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid condition, because the Bidder :

- (a) has withdrawn its Bid during the period of Bid Validity specified by the Bidder in the Form of Bid; or
- (b) having been notified of the acceptance of its Bid by the Employer during the period of Bid Validity, (i) fails or refuses to execute the Contract Agreement or (ii) fails or refuses to furnish the Performance Security, in accordance with Instruction To Bidders (ITB).

This guarantee will expire : (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract signed by the Bidder and the Performance Security issued to you, upon the instructions of the Bidder ; and (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy your notification to the Bidder of the name of the successful Bidder; or (ii) min. 6 months from the Bid due date. Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

[Signature(s)]

Countersigned by : Issuing Bank

SCHEDULE –JJ

CERTIFICATE OF NO RELATIONSHIP

I/We hereby certify that I/We* am/are* **related / not related**(*) to any officer of **Cuttack Municipal Corporation** of the rank of Assistant Engineer & above and any officer of the rank of Assistant / UnderSecretary and above of the Housing & Urban Development Department, Govt. of Orissa I/We* am/are* aware that, if the facts subsequently proved to be false, my/our* contract will be rescinded with forfeiture of E.M.D and security deposit and I/We* shall be liable to make good the loss or damage resulting from such cancellation.

(*) - Strike out which is not applicable
Tenderer

Signature of the

Date:-

.....

SCHEDULE -KK

LIST OF PLANT AND EQUIPMENTS TO BE DEPLOYED ON THE CONTACT WORK
(MINIMUM REQUIREMENT)

Sl. No.	List of plants and equipments	Requirement	Marks
01.	Truck/Tipper	2 Nos.	10
02.	Concrete Mixture	2 Nos.	30
03.	Generator	1 No.	10
04.	Plate Vibrator	2 Nos.	10
05.	Needle Vibrator	2 Nos.	10
06.	Centering&shuttering materials.	500 sqm.	20
07.	Water Tanker	1 No.	10
		Total:-	100

Minimum Pass marks for qualification - 60

NOTE :

1. Capacity of each plant and equipment should be as per specification attached separately.
2. The above equipment should either be owned or availed on long-term lease extended beyond the duration of the work, the authority of which in either case is to be substantiated before award of the work.
2. As regards the ownership of centering& shuttering materials, the contractor shall produce in his bid a Possession Certificate from an Civil Engineering Authority not below the rank of Executive Engineer(Civil) from any Govt. / Govt. undertaking organization. The certificate must be obtained within 6 months period from the 1st date of bidding of the tender.
4. The equipment mentioned above must be clearly indicated as "Owned/leased."
5. Apart from the above list, all other machinery/equipments as will be required for satisfactory completion of the work shall have to be deployed by the agency.
6. For deploying additional sophisticated machinery by the agency for completion of the work, no claim shall be entertained.
7. **Apart from the above the contractor shall have to arrange other machineries if any required for the work.**

SCHEDULE -LL

CERTIFICATE OF LIST WORKS EXECUTED

I/We do hereby certify that the following works have been executed by me/us in the past.

Sl No.	Particulars of work already executed	Value of work executed/ In progress	Name of Department under which the works were executed	Period of commencement & completion.	Whether the work were completed in stipulated period.	Remarks
1	2	3	4	5	6	7

Signature of the tenderer

Date.

SCHEDULE –MM

**INFORMATION REGARDING CURRENT LITIGATION, DEBARRING EXPELLING OF
TENDERED OR ABANDONMENT OF WORK BY THE TENDERER**

- | | | | |
|----|----|--|----------|
| 1. | a) | Is the tenderer currently involved in any litigation relating to the works. | Yes / No |
| | b) | If yes: give details: | |
| 2. | a) | Has the tenderer or any of its constituent partners been debarred/expelled by any agency in India during the last 5 years. | Yes / No |
| 3. | a) | Has the tenderer or any of its constituent partners failed to perform on any contract work in India during the last 5 years. | Yes / No |
| | b) | If yes, give details: | |

Note:

If any information in this schedule is found to be incorrect or concealed, qualification application will summararily be rejected.

Signature of Tenderer

SCHEDULE –NN

AFFIDAVIT

(To be furnished in original in legal stamp paper)

1. The undersigned do hereby certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certifies that neither my / our firm / company / individuals _____ nor any of its constituent partners have abandoned any road/ bridge/Irrigation /Buildings or other project work in India nor any contract awarded to us for such works have been rescinded during the last five years prior to the date of this bid.
3. The undersigned hereby authorise(s) and request(s) any bank, person, firm or Corporation to furnish pertinent information as deemed necessary and as requested by the Department to verify this statement or regarding my (our) competency and general reputation.
4. The undersigned understands and agrees that further qualifying information may be requested and agree to furnish any such information at the request of the Department.

(Signature of Tenderer)

Title of Officer

Name of Firm

Date:

SCHEDULE – OO

ANY OTHER INFORMATION, IF ANY

**Guidelines/ Procedure to be followed in introduction of
e-Procurement in Government of Odisha.**

**Government of Odisha
Works Department**

Office Memorandum

File No.FA-R-3/08 – 1027 /W, Dated 24.01.2009

Sub: Guidelines/ Procedure to be followed in introduction of e-Procurement in Government of Odisha.

1. This office memorandum consists of the procedural requirement of e-Procurement and shall be made part of the Detailed Tender Call Notice or Instruction to Bidder for all “Works” tenders hosted in the portal.
2. The e-Procurement portal of the Government of Odisha is “**<https://tendersorissa.gov.in>**”
3. Use of valid Digital Signature Certificate of appropriate class (class II or Class III) issued from a registered Certifying Authority (CA) as stipulated by Controller of Certifying Authorities. (CCA), Government of India such as n-Code, Sify, TCS, MTNL, e-Mudhra etc is mandatory for all users.
4. The DSC issued to the Department users is valid for the period of two years only. All the Department users are responsible to revalidate their DSC prior to expiry.
5. For all purpose, the server time displayed in the e-procurement portal shall be the time to be followed by all the users.
6. Government after careful consideration has decided to host all tenders costing 20 lakhs or above in the e-procurement portal. This will be applicable across all Engineering Departments such as Works Department, Department of Water Resources, Rural Development and Housing & Urban Development Department. Government of Odisha also welcomes hosting of tenders by any other departments, authority, corporations, local bodies etc of the State with prior approval from Information Technology Department.
7. The e-procurement shall be operated compliant to relevant provisions of OGFR / OPWD code/ Accounts Code/ Government statutes including any amendments brought from time to time to suit to the requirement of the best national practice.
7. Registration in the e-procurement portal is without levy of any charges but Government reserves the right to levy any charges for such value added services in future.
9. Contractors not registered with Government of Odisha, can participate in the e-procurement after necessary enrolment in the portal but have to subsequently register themselves with the appropriate registering authority of the State Government before award of the work as per prevalent registration norms of the State.
10. For the role management “Department”, is Cuttack Municipal Corporation equivalent officer under the Administrative Department, is the Executive Engineer or equivalent officer, / the Assistant Executive Engineer / Deputy Executive Engineer or equivalent officer.

11. The e-procurement software assigns role for operation of the module for specific function. The terminologies used in the Portal and their respective functions in the software are as follows:
 - a. **Application Administrator:** (NIC and State Procurement Cell)
 - i. Master Management
 - ii. Nodal officer creation
 - iii. Report Generation
 - iv. Transfer and blocking of officers.
 - b. **Nodal Officer:** (At Organisation level not below the Executive Engineer or equivalent rank).
 - i. Creation of Users
 - ii. Role Assignment
 - iii. Transfers and blocking of Officers
 - c. **Procurement Officer-Publisher:** (Officer having Tender inviting power at any level).
 - i. Publishing of Tender
 - ii. Publishing of Corrigendum / addendum/ cancellation of Tender
 - iii. Bid Clarification
 - iv. Uploading of pre-Bid Minutes
 - v. Report generation
 - d. **Procurement Officer – Administrator:** (Generally sub-ordinate officer to Officer inviting the tender).
 - i. Creation of Tender
 - ii. Creation of corrigendum / addendum/ cancellation of Tender
 - iii. Report generation
 - e. **Procurement officer – Opener:** (Generally sub-ordinate officer to officer inviting the Tender).
 - i. Opening of Bid
 - f. **Procurement Officer–Evaluator:** (Generally sub-ordinate officer to officer inviting the Tender).
 - i. Evaluating Bid
 - g. **Procurement Officer–Auditor:** (Procurement Officer – Publisher and/or Accounts Officer/ Finance Officer).
 - i. To take up auditing.
12. **NOTICE INVITING BIDS (NIB) OR INVITATION FOR BID (IFB):**
 - a. The Notice inviting Bids (NIB) and Bid documents etc., shall be in the standard formats as applicable to conventional Bids and will be finalized/ approved by the officers competent as in the case of conventional Bids.
 - b. The officers competent to publish NIB in case of conventional Bids will host the NIB in the portal. Simultaneously, a notification should also be published in the newspapers, as per existing rules preferably, in the following format, to effect economy:-

Government of Odisha “e” Procurement Notice

Bid Identification No: _____

1. Name of the Work: _____
2. Estimated cost Rs. _____
3. Period of completion: _____
4. Date & time of availability of bid document in the portal _____
5. Last date/ time for receipt of bids in the portal: _____
6. Name and address of the Officer inviting Bid: _____

Further details can be seen from the e-procurement portal

“<https://tendersorissa.gov.in>”

- c. All the volumes/ documents shall be uploaded in the portal by the Procurement Officer Administrator and published by Procurement Officer Publisher (Officer inviting tender) using their DSCs in appropriate format so that the document is not tampered with.
- d. The tender documents published by the Tender Inviting Officer (Procurement Officer Publisher) in the website **<https://tendersorissa.gov.in>** will appear in the “Latest Active Tenders”. The Bidders/ Guest Users can download the Bid documents only after the due date & time of sale. the publication of the tender will be for specific period of time till the last date of submission of bids as mentioned in the ‘Notice Inviting Bid’ after which the same will be removed from the list of Latest Active tenders.

13. ISSUE OF ADDENDA/ CORRIGENDA/ CANCELLATION NOTICE:

- a. The Procurement Officer Publisher (Officer inviting tender) shall publish any addendum / corrigendum / cancellation of tender in the website **<https://tendersorissa.gov.in>**, notice board and through paper publication and such notice shall form part of the bidding documents.
- b. The system shall generate a mail to those bidders who have already uploaded their tenders and those bidders if they wish, can modify their tender.

14. PARTICIPATION IN BID

- a. **PORTAL REGISTRATION:** The Contractor / Bidder intending to participate in the bid is required to register in the portal using his/ her active personal / official e-mail ID as his/ her Login ID and attach his/ her valid Digital signature certificate (DSC) to his/ her unique Login ID. He / she will enter relevant information as asked for about the firm/ contractor. This is a one time activity for registering in Portal.
 - i. Bidders participating through Joint Venture shall declare the authorized signatory through Memorandum of Understanding duly registered and enroll in the portal in the name and style of the Joint Venture Company. It is mandatory that the DSC issued in the name of the authorized signatory is used in the portal.
 - ii. Any third party/ company/ person under a service contract for operation of e-procurement system in the State or his/ their subsidiaries or their parent companies shall be ineligible to participate in the procurement processes that are undertaken through the e-procurement system irrespective of who operates the system.

- b. **LOGGING TO THE PORTAL:** The Contractor/ Bidder is required to type his/ her Login ID and password. The system will again ask to select the DSC and confirm it with the password of DSC as a second stage authentication. For each login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CA stored in system database. The system checks the unique Login ID, password & DSC combination and authenticates the login process for use of portal.
- c. **DOWNLOADING OF BID:** The bidder can download the tender of his choice and save it in his system to undertake necessary preparatory work off-line and upload the completed tender at his convenience before the closing date and time of submission.
- d. **CLARIFICATION ON BID:** The bidder may ask question online in the e-procurement portal using his/ her DSC; provided the questions are raised within the period of seeking clarification as mentioned in tender call notice/ Bid. The officer inviting the bid/ procurement officer- publisher will clarify queries related to the tender.
- e. **PREPARATION OF BID:**
 - i) The bids may consist of general arrangements drawings or typical or any other drawing relevant to the work for which bid has been invited. Bidder may download these drawings and take out the print for detail study and preparation of his bid. Any other drawings and documents pertaining to the works available with the officer inviting the Bid will be open for inspection by the bidders.
 - ii) The bidder shall go through the Bid carefully and list the documents those are asked for submission. He shall prepare all documents including cost of Bid document, Bid security, Declaration form, price bid etc and store in the system.
- f. **PAYMENT OF EMD/ BID SECURITY AND COST OF BID DOCUMENTS:**
 - i) Government of Odisha has been actively considering integrating e-payment gateway into the portal for payment of cost of Bid and Bid Security/ Earnest Money Deposit
 - ii) The Bidder shall furnish, as part of his Bid, a bid security for the amount mentioned under NIT/ Contract Data.
 - iii) The officers authorized by the Procurement Officer–Publisher (Officer Inviting Tender) shall transmit the sealed envelopes carefully to the Procurement Officer–Publisher prior to opening of the Bid. The Procurement Officer–Publisher shall provide signed receipt with date and time for having received the number of sealed envelopes.
 - iv) The Procurement Officer–Publisher (Officer Inviting the Tender) or other concerned officers authorized to receive the Bid (Original Affidavit including attested hard copies of all documents) on behalf of the Procurement Officer–Publisher shall not be responsible for any postal delay and/ or non-receipt of the copy of the bid security on or before specified date and time. Non submission of bid security within the designated period shall debar the bidder from participating in the on-line bidding system and his portal registration shall be blocked. His name shall also be informed to the registering authority for cancellation of his registration as contractor.
 - v) Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidence towards his eligibility for such exemption.

15. **SUBMISSION OF BID:**

- a. The bidder shall carefully go through the tender and prepare the required documents. The Bid shall have a Technical Bid & a Financial Bid. The Technical Bid generally consist of cost of Bid documents, EMD/ Bid Security, GST, PAN/ TIN, Registration Certificate, Affidavits, Profit Loss Statement, Joint Venture Agreement. List of similar nature works, work in hand, list of machineries, and any other information required by OIT. the Financial Bid shall consist of the Bill of Quantities (BoQ) and any other price related information/ undertaking including rebates.
- b. The protected Bill of Quantities (BoQ) uploaded by the Procurement Officer – Publisher for the Bid is the authentic BoQ. Any alteration or deletion or manipulation in BoQ shall lead to cancellation of Bid.
- c. The Bidder shall up load the scanned copy/ copies of document in support of eligibility criteria and qualification information in prescribed format in Portable Document Format (PDF) to the portal in the designated locations of Technical Bid.
- d. The Bidder shall write his name in the space provided in the specified location in the Protected Bill of Quantities (BoQ) published by the officer inviting tender. the bidder shall type rates in figure only in the rate column of respective item(s) with out leaving any blank cell in the rate column in case of item rate tender and type percentage excess or less upto one decimal place only in case of percentage rate tender.
- e. The bidder shall log on to the portal with his/ her DSC and move to the desired tender for uploading the documents in appropriate place one by one simultaneously checking the documents.
 - i) Bids can not be submitted after due date and time. The bids once submitted can not be viewed, retrieved or corrected. The Bidder should ensure correctness of the bid prior to uploading and take print out of the system generated summary of submission to confirm successful uploading of bid. The bids can not be opened even by the OIT or the Procurement Officer–Publisher/Opener before the due date and time of opening.
 - ii) Each process in the e-procurement is time stamped and the system can detect the time of log in of each user including the Bidder.
 - iii) The Bidder should ensure clarity / legibility of the document uploaded by him to the portal.
 - iv) The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/ tender.
 - v) The bidder should check the system generated confirmation statement on the status of the submission.
 - vi) The Bidder should upload sufficiently ahead of the bid closure time to avoid traffic rush and failure in the network.
 - vii) The tender inviting officer is not responsible for any failure, malfunction, or breakdown of the electronic system used during the e-procurement process.
 - viii) The Bidder is required to up load documents related to his eligibility criteria and qualification information and Bill of Quantities duly filled in. It is not necessary for the part of the Bidder to up-load the drawings and other Bid documents (after signing) while up-loading his bid. It is assumed that the

bidder has referred all the drawings and documents uploaded by the Officer inviting the Bid.

ix) Seeking any revision of rates or backing out of the bid claiming for not having referred to any or all documents provided in the Bid by the Officer inviting the Bid will be construed as plea to disrupt the bidding process and in such cases the bid security shall be forfeited.

x) The bidder will not be able to submit his bid after expiry of the date and time of submission of Bid (server time). The date & time of bid submission shall remain unaltered even if the specified date for the submission of bids declared as a holiday for the Officer inviting the Bid.

f. **SIGNING OF BID:** The 'online bidder' shall digitally sign on all statements, documents, certificates, uploaded by him, owning responsibility for their correctness/ authenticity as per IT ACT 2000. If any of the information furnished by the bidder is found to be false/ fabricated / bogus, his EMD/ Bid security shall stand forfeited and the bidder is liable to be blacklisted.

16. **SECURITY OF BID SUBMISSION:**

a. All bid uploaded by the Bidder to the portal will be encrypted.

b. The encrypted Bid can only be decrypted/ opened by the authorised openers on or after the due date and time.

17. **RESUBMISSION AND WITHDRAWAL OF BIDS:**

a. Resubmission of bid by the bidders for any number of times before the final date and time of submission is allowed.

b. Resubmission of bid shall require uploading of all documents including price bid afresh.

c. If the bidder fails to submit his modified bids) within the pre-defined time of receipt, the system shall consider only the last bid submitted.

d. The bidder should avoid submission of bid at the last moment to avoid system failure or malfunction of internet or traffic jam or power failure etc.

e. The Bidder can withdraw his bid before the closure date and time of receipt of the bid by uploading scanned copy of a letter addressing to the Procurement Officer–Publisher (Officer Inviting Tender) citing reasons for withdrawal. The system shall not allow any withdrawal after expiry of the closure time of the bid.

18. **OPENING OF THE BID:**

a. Bid opening date and time is specified during tender creation or can be extended through corrigendum. Bids can not be opened before the specified date & time.

b. All bid openers have to log on to the portal to decrypt the bid submitted by the bidders.

c. The bidders & guest users can view the summary of opening of bids from any system. Contractors are not required to be present during the bid opening at the opening location if they so desire.

d. In the event of the specified date of bid opening being declared a holiday for the officer inviting the Bid, the bids will be opened at the appointed time on the next working day.

- e. In case bids are invited for more than one package, the order for opening of the “Bid” shall be that in which they appear in the “Invitation for Bid”.
 - f. During bid opening, the covers containing copy of financial instruments towards cost of bid and Bid Security in the form specified in the DTCN/ ITB valid for the period stated in the Bid, received after last date of receipt of bid and before opening of the bids shall be opened and declared. The Procurement Officer–Opener shall continue opening of other documents if he is satisfied about the appropriateness of the cost of Bid and the Bid security.
 - g. Combined bid security for more than one work is not acceptable.
 - h. The electronically submitted bids may be permitted to be opened by the predefined Bid opening officer from their new location if they are transferred after the issue of Notice Inviting Bid and before bid opening. Further action on bid documents shall be taken by the new incumbent of the post.
19. **EVALUATION OF BIDS:**
- a. All the opened bids shall be down loaded and printed for taking up evaluation. The Procurement Officer–Openers shall sign on each page of the documents downloaded and furnish a certificate that the documents as available in the portal for the tender have been down loaded.
 - b. The Procurement Officer–Evaluators shall take up evaluation of bids with respect to the qualification information and other information furnished subject to confirmation of the bid security by the issuing institutions.
 - c. After receipt of confirmation of the bid security, the bidder may be asked in writing to clarify on the documents provided in the Technical Bid, if necessary, with respect to any doubts or illegible documents. The Officer Inviting Tender may ask for any other document of historical nature during Technical evaluation of the tender. Provided in all such cases, furnishing of any document in no way alters the Bidder’s price bid. Non submission of legible documents may render the bid non-responsive.
 - d. The bidders will respond in not more than 7 days of issue of the clarification letter, failing which the bid of the bidder will be evaluated on its own merit.
 - e. Technical evaluation of all bids shall be carried out as per information furnished by Bidders. But evaluation of bids does not exonerate bidders from checking their original documents at later date. If the bidder is found to have misled the evaluation through wrong information, action as per relevant clause of DTCN / ITB shall be taken against the bidder/ contractor.
 - f. The procurement Officer- Evaluators; will evaluate bids and finalize list of responsive bidders.
 - g. The financial bids of the technically responsive bidders shall be opened on the due date of opening. The Procurement Officer – Openers shall log on to the system in sequence and open the financial bids.
 - i. The Financial Bid will be opened on the notified date & time in the presence of bidders or their authorised representative who wish to be present.
 - ii. At the time of opening of “Financial Bid”, bidders whose technical bids were found responsive will be opened.

- a. The responsive bidders name, bid prices, item wise rates, total amount of each item in case of item rate tender and percentage above or less in case of percentage rate tenders will be announced.
 - b. Procurement Officer-Openers shall sign on each page of the downloaded BoQ and the comparative statement and furnish a certificate to that respect.
 - c. Bidder can witness principal activities and view the documents/ summary reports for that particular work by logging on to the portal with his DSC from any where.
20. **NEGOTIATION OF BIDS:**
- a. For examination, evaluation, and comparison of bids, the officer inviting the bid may, at his discretion, ask the lowest bidder for clarification of his rates including reduction of rate on negotiation and breakdown of unit rates.
21. **NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT:**
- a. The Employer/ Engineer-in-charge shall notify acceptance of the work prior to expiry of the validity period by cable, telex or facsimile or e-mail confirmed by registered letter. This Letter of Acceptance will state the sum that the Engineer-in-charge will pay the contractor in consideration of the execution & completion of the Works by the Contractor as prescribed by the contract & the amount of performance security and additional performance security required to be furnished. The issue of the letter of acceptance shall be treated as closure of the Bid process and commencement of the contract.
 - b. The Contractor after furnishing the required acceptable performance security and additional performance security, "Letter to Proceed" or "Work Order" shall be issued by the Engineer-in-Charge with copy thereof to the Procurement Officer-Publisher. The Procurement Officer-Publisher shall up load the summary and declare the process as complete.

**EXECUTIVE ENGINEER,
City Division-III, CMC**

**Online Receipt of Tender Paper Cost & Earnest Money Deposit
through e-Procurement Portal as per
Works Department Letter No.17276/W Dt.06.12.2017**

**Government of Odisha
Works Department**

Office Memorandum

File No.07556900012016-17254/W Dt.05.12.2017

Sub: Electronic receipt, accounting and reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids.

1. The State Government have formulated rules and procedures for Electronic receipt, accounting and reporting of the receipt of Cost of Tender Paper and Earnest Money Deposit on submission of bids through the e-procurement portal of Government of Odisha i.e. "<https://tendersodisha.gov.in>".
2. Electronic receipt of cost of tender paper has been successfully tested through SBI payment gateway. Now it has been decided to introduce electronic receipt of **Cost of Tender Paper and Earnest Money Deposit on submission of bids** through payment gateway of designated banks such as **SBI/ICICI Bank/HDFC Bank** for all Government Departments, State PSUs. Statutory Corporations, Autonomous Bodies and Local Bodies etc. in phases (ANNEXURE-I). The process outline as well as accounting and reporting structure are indicated below :
 - a) It will be carried out through a single banking transaction by the bidder for multiple payments like **Cost of Tender Paper and Earnest Money Deposit on submission of bids**.
 - b) Various payment modes like **Internet banking/ NEFT/RTGS** of Designated Banks and their Aggregator Banks as well can be accessed by the intending bidders.
 - c) Reporting and accounting of the **e-receipts** will be made from a single source.
 - d) Credit of receipts into the Government accounts and to the designated Bank account of the participating entities indicated in Para 2 above would be faster.
3. Only those bidders who successfully remit their **Cost of Tender Paper and Earnest Money Deposit on submission of bids would be eligible to** participate in the tender/bid process. The bidders with pending or failure payment status shall not be able to submit their bid. Tender inviting authority, State Procurement Cell, NIC, the designated Banks shall not be held responsible for such pendency or failure.
4. **Banking arrangement:**
 - a) Designated Banks (**SBI/ICICI Bank/HDFC Bank**) payment gateway are being integrated with e-Procurement portal of Government of Odisha (<https://tendersodisha.gov.in>).
 - b) The Designated Banks participating in **Electronic receipt, accounting and reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids** will nominate a **Focal Point Branch** called e-FPB, who is authorized to collect and collate all e-Receipts. Each such branch will act as the Receiving branch and Focal Point Branch notwithstanding the fact that the bidder might have debited his account in any of the bank's branches while making payment.
5. **Procedures of bid submission using electronic payment of tender paper cost and EMD by bidder:**
 - a) **Log on to e-Procurement Portal:** The bidders have to log onto **the** Odisha e-Procurement portal (<https://tendersodisha.gov.in>) using his/her digital

signature certificate and then search and then select the required active tender from the "Search Active Tender" option. Now, submit button can be clicked against the selected tender so that it comes to the "My Tenders" section.

- b) **Uploading of Prequalification/Technical/Financial bid:** The bidders have to upload the required Prequalification /Technical/Financial bid, as mentioned in the bidding document and in line with Works Department office memorandum no.7885, dt.23.07.2013.
- c) **Electronic payment of tender paper cost and EMD:** Then the bidders have to select and submit the bank name as available in the payment options
 - i. A bidder shall make electronic payment using his/her **internet banking** enabled account with designated Banks or their aggregator banks.
 - ii. A bidder having account in other Banks can make payment using **NEFT/RTGS** facility of designated Banks.
 - Online NEFT/RTGS payment using internet banking of the bank in which the bidder holds his account, by adding the account number as mentioned in the challan as an interbank beneficiary.
- d) **Bid submission:** Only after receipt of intimation at the e-Procurement portal regarding successful transaction by bidder the system will activate the 'Freeze Bid Submission' button to conclude the bid submission process.
- e) **System generated acknowledgement receipt for successful bid submission:** System will generate an acknowledgement receipt for successful bid submission. The bidder should make a note of '**Bid ID**' generated in the acknowledgement receipt for tracking their bid status.

6. Settlement of Cost of Tender Paper;

- a) **Cost of Tender Paper:** In respect of Government receipts on account of **Cost of Tender Paper**, the e-Procurement portal shall generate a MIS for the State Procurement Cell (SPC). The MIS will contain an abstract of the cost of tender paper collected with reference to **Bid Identification Number**. The State Procurement Cell shall generate Bank-wise-head-wise challans separately for **Cost of Tender Paper** and instruct the designated Banks to remit the money to the State Government account under different heads. In respect of the cost of tender paper received through the e-procurement portal, the remittance to the Cyber Treasury account will be made to the Head of Account 0075-Misc, General Services-800-Other Receipts -0097-Misc. Receipts-02237-Cost of Tender Paper.
- b) For the time being, the State Procurement Cell (SPC) will use over the counter payment facility of the Odisha Treasury portal. Thereafter, remittance through NEFT & RTGS will be facilitated through the Odisha Treasury portal.
- c) Similarly, in case of State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc., **Cost of Tender Paper**, the e-Procurement portal shall generate a MIS for the State Procurement Cell (SPC). The MIS will contain an abstract of the cost of tender paper collected with reference to **Bid Identification Number**. The State Procurement Cell shall generate Bank-wise list of challans and instruct the designated Banks to remit the money through the Odisha Treasury portal. The cost of tender papers will be credited to the registered Bank account of the concerned State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc.
- d) Bank will refund (in case the Tender Inviting Authority (TIA) issues such instructions) the tender fee, EMD to the bidder, in case the tender is cancelled

before opening of Bid as per direction received from TIA through e-procurement system.

- e) Back-end Transaction Matrix of Electronic receipt of Cost of Tender Paper and Earnest Money Deposit on submission of bids is enclosed in the Annexure.

7. Settlement of Earnest Money Deposit on submission of bids:

- a) The Bank will remit the **Earnest Money Deposit on submission/ cancellation of bids** to respective bidders accounts as per direction received from TIA through e-procurement system.

8. Forfeiture of EMD :

Forfeiture of **Earnest Money Deposit on submission of bid** of defaulting bidder is occasioned for various reasons.

- a) In case the **Earnest Money Deposit on submission of bid** is forfeited, the e-Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority.
- b) The Tender inviting authorities of the Government Departments will deposit the forfeited **Earnest Money Deposit on submission of bid**, in the State Government Treasury under the appropriate head (8782-Cash Remittances and Adjustments between the officers rendering accounts to the same Accounts Officer-102-P.W.Remittances-1683-Remittances-91028-Remittances into Treasury) after taking the amount as a revenue receipt in their Cash Book under the head 0075-Misc. General Services-00-101 -Unclaimed Deposits-0097-Misc, Receipts-02080-Misc. Deposits and submit the detail account to DAG (Puri) as a deposit of the Division.
- c) By clicking submit button, system will initiate the forfeiture of EMD. System will not allow the evaluator to edit the initiation after clicking the submit button. Forfeiture option can be carried out in phased manner like one bidder at a time.

9. Role of the Banks:

- a) Make necessary provision / customizations at their end to enable the provision for online payments / refunds as per this document.
- b) Provide necessary real-time message to bidders regarding successful or unsuccessful transactions during online payment processes and redirect them to e-Procurement website with necessary transaction reference details enabling them to submit their bids.
- c) The bank shall ensure transfer of funds from the pooling account to the Government Head/current account of PSUs/ULBs within the next bank working day as per the directions generated from e-Procurement portal.
- d) Bank should provide timely reports and reference details to NIC enabling them to carry out their role as stated below.
- e) Refund of amount to bidders as per the XML file provided by e-Procurement system on the next bank working day from the date of generation of the XML file and also provide a confirmation to NIC on the same.

10. Role of State Procurement Cell:

- a) Communicate requirements of Government departments/ State PSUs/ Autonomous Bodies/ ULBs online payment requirements to National Informatics Centre / the authorised Banks for mapping/ customization.
- b) In every working day, the State Procurement Cell shall generate MIS from the e-Procurement portal to ascertain the tender paper cost received in the e-Tendering process separately bank-wise for the Government Department and

the PSUs/ULBs. The SPC shall generate bank-wise separate online challans from the Odisha Treasury portal and make the remittance through over the counter facility or NEFT/RTGS (as and when this functionality is available in Treasury portal) and issue instruction to the bank for remittance of the receipt to the State Government account.

- c) The State Procurement Cell shall be responsible for providing challan details and MIS in respect of the remittance towards tender paper cost to the Tender inviting authorities for their record.
- d) State Procurement Cell shall monitor the progress of e-Tendering by different Government departments / State PSUs/ Autonomous Bodies / ULBs through an MIS. State Procurement Cell shall monitor and send monthly progress reports to the Government.
- e) The e-Procurement system will generate a consolidated refund & settlement XML file as an end of the day activity.
- f) e-procurement system will provide a web service for payment gateway (PG) provider to pull the encrypted refund and settlement details in XML file against a day.
- g) Similarly, payment gateway (PG) provider will provide a web service to pull the refund and settlement status against a day
- h) e-procurement system will update the status accordingly for reconciliation report.

11. Role of National Informatics Centre :

- a) Customize e-Procurement software and web-pages of Government of Odisha (<https://tendersodisha.gov.in>) to enable the provision for electronic payment.
- b) The NIC, Odisha will modify / rectify the errors in electronic data relating to the Chart of Account.
- c) NIC will provide an interface to organisations to download the electronic receipt data.
- d) Enable automatic generation of daily XML files from e-Procurement system and ensure delivery of the same to the authorised Banks for enabling automatic refund/settlement of funds.
- e) NIC shall enable the e-Procurement portal to generate MIS as required for the State Procurement Cell in order to make remittance of the tender paper cost to the State Government account using the Odisha Treasury portal.

12. Role of Cyber Treasury :

- a) The cost of the tender paper deposited by the SPC using the Odisha Treasury Portal which will be accounted for by the Cyber Treasury and it shall submit the accounts to A.G (O) as per the established process.
- b) The Cyber Treasury will provide MIS as required to the SPC for the purpose of accounting and reconciliation of the electronic remittances made to the State Government account.

13. Redressal of Public grievances:

The State Procurement Cell, Odisha, National Informatics Centre, Odisha and the e-FPB will have an effective procedure for dealing with, public complaint for e-Receipt related matters. In case, any mistake is detected by any of the stakeholders in reporting of receipt of tender paper cost and EMD, either suo moto or on being brought to its notice, the State Procurement Cell, Odisha, National Informatics Centre, Odisha unit, Cyber Treasury and the bank will promptly take steps for rectification. The e-Focal Point Branch of the participating Banks, National Informatics Centre, Odisha and the State Procurement Cell, Odisha will notify the contact number and address of the Help Desk for resolution of any dispute regarding e-Receipt.

14. Applicability and modification of existing rules / orders:

The modalities prescribed in this Office Memorandum for downloading of tender paper, submission and rejection of bid, acceptance of Bids as well as refund and forfeiture of earnest deposit will be applicable for electronic submission of bids through e-procurement portal. Existing provisions regulating cost of tender paper, earnest money deposit in OPWD Code and OGFR would stand modified to the extent prescribed.

15. These arrangements would be made effective after signing of MoU between the designated Banks and the State Procurement Cell, firming up of Banking arrangements and technical integration between designated Bank and e-Procurement Portal.
 1. This shall take effect from the date of issue of this Office Memorandum.
 2. Accordingly, relevant existing codal/ contractual provision exist vide Office Memorandum No.6785/W Dt.09.05.2017 of Works Department stands modified to the above extent.
 3. This has been concurred in by the Finance Department vide their UOR No.-39-WF-I Dt.09.11.2017.

Sd/05.12.2017
E.I.C-cum-Secretary to Govt.

[For any Technical related queries please call at Help desk numbers of State Procurement Cell (SPC), Govt. of Odisha – 1800 3456 765, (0674) 2530998 / 2530996]

Back-end Transaction Matrix of Electronic receipt and remittance of Cost of Tender Paper and Earnest Money Deposit on submission of bids.

	Cost of Tender Paper on submission of bids	Earnest Money Deposit on submission of bids
Government Departments	I. The payment towards the cost of Tender Paper, in case Government Departments, shall be collected in separate Pooling accounts opened in Focal Point Branch called e-FPB of respective designated banks [as stated in Para 2] at Bhubaneswar on T+1_day. II. With reference to the Notice Inviting Tender/ Bid Identification Number, the amount so realized is to be remitted to Government Account under the Head Of Account 0075-Misc. General Services-800-Other Receipts-0097-Misc. Receipts-02237-Cost of Tender Paper through Odisha Treasury Portal after opening of the bid.	I. In case of tenders of Government Departments, amount towards Earnest Money Deposit on submission of bids shall be collected in a pooling account opened for this purpose at Focal Point Branch called e-FPB of respective designated banks at Bhubaneswar and the banks will remit the amount to respective bidder's account within two working days on receipt of instruction from TIA through refund and settlement of e-procurement system. II. In case of forfeiture of Earnest Money Deposit on submission of bids, the e-Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority within two working days of receipt of instruction from TIA.
State PSUs Statutory Corporations, Autonomous Bodies and Local Bodies.	I. In case of State PSUs, Statutory corporations, Autonomous Bodies and Local Bodies etc. the amount towards Cost of Tender Paper, on submission of bids shall be collected in separated pooling accounts opened in Focal Point Branch called e-FPB of respective designated Banks at Bhubaneswar on T+1 days. II. The Paper cost will be transferred to the respective current accounts of concerned State PSUs, Statutory Corporation, Autonomous Bodies and Local Bodies etc. after opening of bid.	I. Amount towards EMD on submission of bids shall be collected in a separate pooling account of Focal Point Branch called e-FPB of respective designated banks at Bhubaneswar and the banks will remit the amount to respective bidder's account on receipt of instruction from TIA through refund and settlement of e-procurement system within two working days from receipt of such instruction. II. In case of forfeiture of Earnest Money deposit on submission of bids, the e-Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority within two working days of receipt of instruction from TIA.

BID SECURITY DECLARATION

Tender Call Notice No. _____ date

To

The Commissioner,
Cuttack Municipal Corporation

I/We. The undersigned, declare that:

I/We understand that according to term & condition as contained in Tender/bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract for a period of two years from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

a) have withdrawn/modified/amended/impaired or derogated from the tender in any respect, my/our Bid during the period of bid validity or its extended period, if any

or

b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity specified in the bid document

(i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security/ Bank Guarantee, in accordance with the Instructions to Bidders.

or

c) If the bidder is found indulging in any corrupt, fraudulent or other malpractice in respect of the bid;

or

d) If there is a discrepancy between words and figures quoted by the bidder and the bidder does not accept that the amount in words prevails over amount in figure.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid as specified in the bid documents..

Place:

Signature of the Tenderer

Date :

Name/Organisation

Seal

(Note: In case of a consortium/Joint Venture, the Bid Securing Declaration must be in the name of all partners to the consortium/Joint Venture that submits the bid)

GOVERNMENT OF ODISHA
WORKS DEPARTMENT

No. 4281 /W., Bhubaneswar,
07559600052021

Dated 05.03.2025

OFFICE MEMORANDUM

Sub: Preference to Local MSEs/ Start-ups in Procurement of Works

Government in Works Department, in view of the difficulties faced by the Contractors and to facilitate competition in the wake of slow down of economy due to COVID-19 pandemic had exempted local Micro & Small Enterprises (MSEs) and Start-ups from deposit of Bid Security / EMD at the time of participation in tender and also allowed concessional payment of Performance Security @25% of the value of Performance Security to such local Micro & Small Enterprises (MSEs) and Start-ups on being selected in the bidding process vide this Department O.M. No. 503/W dt 17.01.2022.

2. Now, Department of Micro, Small & Medium Enterprises, Government of Odisha have issued Notification No. MSME-IPE-MISC-0060-2019/566/MSME dt 24.01.2024 on "Odisha Procurement Preference Policy for Micro & Small Manufacturing Enterprises" and the said Policy is effective from 24.01.2024. At Para-4 of the said Policy, it is mentioned that the said Policy is not applicable to Procurement of services including works contract (including EPC Contracts).

3. Now, the context and situation basing on which Works Department had issued the O.M. No. 503/W dt 17.01.2022 is no more existing.

4. After careful consideration, Government have been pleased to withdraw this Department O.M. No. 503/W dt 17.01.2022 with effect from the date of issue of the Office Memorandum and accordingly the exemption from deposit of Bid Security/EMD at the time of participation in tender & concessional payment of Performance Security @25% of the value of Performance Security to Local Micro & Small Enterprises (MSEs) and Start-ups as extended vide this Department O.M. No. 503/W dt 17.01.2022 will no more exist w.e.f the date of issue of the Office Memorandum.

5. This Office Memorandum shall be effective from the date of issue. It shall be deemed to be a part of OPWD Code.

Order: Ordered that this shall be published in the next issue of Odisha Gazette.

By order of the Governor

(Vir Vikram Yadav, IAS)

Principal Secretary to Government

Signature Not Verified

Digitally signed by SANJUKTA SA
Date: 2026.05.14 11:00:06 IST
Location: Odisha-OD

EXECUTIVE ENGINEER CD II