

BID IDENTIFICATION NO: - 584 // Dt. 09.04.2026 //



GOVERNMENT OF ODISHA

FISHERIES & A.R.D. DEPARTMENT

DETAIL TENDER CALL NOTICE

FOR THE WORK

**“RENOVATION, UP-GRADATION & EXPANSION OF
OFFICE BUILDING OF ADF (M) AT HUMARI
(CHHATRAPUR) IN GANJAM DISTRICT”**

ESTIMATED COST PUT TO TENDER: ₹ 78,09,532.00


**EXECUTIVE ENGINEER (CIVIL) DIRECTORATE OF FISHERIES,
ODISHA, CUTTACK**

GOVERNMENT OF ODISHA
OFFICE OF THE EXECUTIVE ENGINEER (C), DIRECTORATE OF FISHERIES, ODISHA,
CUTTACK
E-MAIL: - eefedcuttack@gmail.com

Bid identification No. 584 / Dt. 09.04.2026 //

1. No. of works : 14 (FOURTEEN) Number of Civil works.
2. Type of works : Civil works.
3. Approximate Estimated Cost : Rs. 7.48 to 83.91 Lakhs.
4. Class of Contractor : 'D', 'C' & 'B'
5. Period of Completion : 01 (One) to 06 (Six) Calendar Months.
6. Date of Sale & Receipt : Dt. 16.04.2026 to 2.00 PM of Dt. 28.04.2026.
(Working days only).
7. Date of Opening : Dt. 30.04.2026 at 11:00 AM.
8. Name of Office inviting Bid : Executive Engineer (C), Directorate of Fisheries,
Odisha, Cuttack.

Further details can be seen in the bidding documents & can be down loaded from the Government of Odisha website (<http://www.odisha.gov.in>). Authority reserves the right to reject any or all the tenders without assigning any reasons thereof.

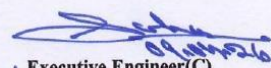

Executive Engineer (C)
Directorate of Fisheries,
Odisha, Cuttack

Memo No. 585 / Dt. 09.04.2026.

Copy forwarded to the Deputy Director cum Deputy Secretary to Govt. I & P.R. Department, Odisha, Bhubaneswar with a request to get it published in two nos. of local Oriya news papers and one local English daily at an early date for wide circulation of the tender call notice.

The Complimentary copy of the News Paper containing the tender call notice may be sent to this office for reference and record.

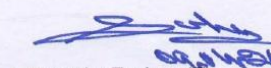
CD - 1 No


Executive Engineer (C)
Directorate of Fisheries,
Odisha, Cuttack

Memo No. 586 / Dt. 09.04.2026.


Copy forwarded to the Head, State Portal Group, I.T. Center, Odisha Secretariat Bhubaneswar with a request to display the Tender Call Notice in the Web-site of Government of Odisha till **2:00 PM** of **Dt. 28.04.2026**. The C.D. containing the above tender call notice (TCN) enclosed herewith for the purpose.

Encl.: CD - 1 No.


Executive Engineer (C)
Directorate of Fisheries,
Odisha, Cuttack

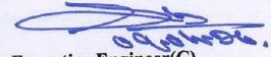
Memo No. 587 / Dt. 09.04.2026.

Copy submitted to the Director of Fisheries, Odisha, Cuttack/ Director of AH and VS, Odisha, Cuttack for favour of kind information and wide circulation.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack

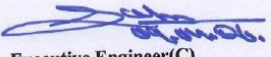
Memo No. 588 / Dt. 09.04.2026.

Copy submitted to Collector, Cuttack/ Collector, Angul/ Collector, Khordha/ Collector, Kalahandi/ Collector, Kendrapada/ Collector, Malkangiri/ Collector, Keonjhar/ Collector, Dhenkanal/ Collector, Deogarh/ Collector, Ganjam/ Collector, Puri for favour of kind information and necessary action.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack


Memo No. 589 / Dt. 09.04.2026.

Copy submitted to DCP, CUTTACK/ SP, Angul/ SP, Khordha/ SP, Kalahandi/ SP, Kendrapada/ SP, Malkangiri/ SP, Keonjhar/ SP, Dhenkanal/ SP, Deogarh/ SP, Ganjam/ SP, Puri for favour of kind information and necessary action.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack


Memo No. 590 / Dt.09.04.2026.

Copy forwarded to the DFO, Angul / DFO, (B&T), Balugaon / DFO, Kalahandi / DFO, Kendrapada / DFO, Malkangiri / DFO, Keonjhar / DFO, Dhenkanal / DFO, Deogarh/ DFO, Puri/ ADFO (M), Chhatrapur/ CDVO, Kalahandi for favour of information and necessary action. He is requested to sale; receive the tender documents at their level as per the scheduled time / place as mentioned above in the notice and send the sealed tender box to Executive Engineer, FED, Cuttack for opening the tender on or before Dt. 30.04.2026 at 11:00 AM.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack


Memo No. 591 / Dt. 09.04.2026.

Copy to the Asst. Engineer, FED, Cuttack for information and necessary action.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack

Memo No. 592 / Dt. 09.04.2026.

Copy to Notice Board / Divisional Accounts Officer / Estimator / Head Clerk / Cashier / Contractor Association, Bhubaneswar/ 1 spare copies for respective tender files.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack

GOVERNMENT OF ODISHA

OFFICE OF THE EXECUTIVE ENGINEER (C), DIRECTORATE OF FISHERIES, ODISHA, CUTTACK
E-MAIL: - eefedcuttack@gmail.com


Bid Identification No. 584 / Dt. 09.04.2026 //

1. The Executive Engineer (C), Directorate of Fisheries Odisha, Cuttack, on behalf of the Governor of Odisha invites **Percentage Rate** bids in single cover system for the work(s) as detailed in the table below, from **eligible** contractors registered with the State Government and contractors of equivalent Grade / Class for execution of Civil works on production of definite proof from the appropriate authority.

The bidders may submit bids for any or all of the following works.

Sl. No	Name of the work	Value of work put to tender (Rs)	Addl. Places of sale & receipt of tender Paper	Class of contractor	Bid Security (Rs.)
1	2	3	4	5	6
1.	SPECIAL REPAIR OF CHINESE HATCHERY AT HERITAGE GOVT. FISH FARM IN ANGUL DISTRICT.	₹ 7,48,045.00	DFO, Angul	D & C	₹ 7,481.00
2.	CONSTRUCTION OF ANNEX BUILDING (REPAIR & RENOVATION) OF B&T BALUGAON OFFICE BUILDING IN KHORDHA DISTRICT	₹ 22,18,624.00	DFO (B&T), Balugaon	C & B	₹ 22,187.00
3.	CONSTRUCTION OF ENTRANCE GATE WITH BOUNDARY WALL OF DDF KALAHANDI ZONE IN KALAHANDI DISTRICT	₹ 17,25,014.00	DFO, Kalahandi	D & C	₹ 17,251.00
4.	CONSTRUCTION OF BOUNDARY WALL AT BFO BUILDING, RAJNAGAR BLOCK IN KENDRAPADA DISTRICT	₹ 33,88,261.00	DFO, Kendrapada	C & B	₹ 33,883.00
5.	CONSTRUCTION OF ANNEX BUILDING OF DISTRICT FISHERIES OFFICER OFFICE BUILDING IN MALKANGIRI DISTRICT	₹ 33,87,621.00	DFO, Malkangiri	C & B	₹ 33,877.00
6.	CONSTRUCTION OF ANIMAL REHABILITATION CENTRE AT BHAWANIPATNA, KALAHANDI DISTRICT	₹ 30,20,852.00	CDVO, Kalahandi	C & B	₹ 30,209.00
7.	CONSTRUCTION OF ANNEX BUILDING OF DFO, KEONJHAR	₹ 62,07,860.00	DFO, Keonjhar	B	₹ 62,079.00
8.	CONSTRUCTION OF ANNEX BUILDING OF DFO, DHENKANAL	₹ 71,10,312.00	DFO, Dhenkanal	B	₹ 71,104.00
9.	CONSTRUCTION OF BIO-FLOC UNIT AT K.V.K., KEONJHAR	₹ 14,15,817.00	-	D & C	₹ 14,159.00
10.	CONSTRUCTION OF ANNEX BUILDING OF DISTRICT FISHERIES OFFICE AT KENDRAPADA DISTRICT	₹ 34,66,408.00	DFO, Kendrapada	C & B	₹ 34,665.00
11.	CONSTRUCTION OF CDVO OFFICE BUILDING AT BHAWANIPATANA IN KALAHANDI DISTRICT	₹ 83,91,050.00	CDVO, Kalahandi	B	₹ 83,911.00
12.	REPAIR & RENOVATION OF FISH FARM OFFICE BUILDING, STORE, HATCHERY AT GOVT. FISH FARM, BARKOTE IN DEOGARH DISTRICT	₹ 22,92,073.00	DFO, Deogarh	C & B	₹ 22,921.00
13.	RENOVATION, UP-GRADATION & EXPANSION OF OFFICE BUILDING OF ADF (M) AT HUMARI (CHHATRAPUR) IN GANJAM DISTRICT	₹ 78,09,532.00	ADF (M) Chhatrapur, Ganjam	B	₹ 78,096.00
14.	RENOVATION WORK WITH FURNITURE & FIXTURE OF DOLPHIN TRAINING CENTER AT PURI	₹ 33,56,095.00	DFO, Puri	C & B	₹ 33,561.00

2. The sale and receipt of the Bid documents shall start from **Dt. 16.04.2026** and closes on **Dt. 28.04.2026** at **14.00 hours** in the office of under signed. The Bids will be opened on **Dt. 30.04.2026** at **11:00 AM** in the office of the **Executive Engineer [C] Directorate of Fisheries, Odisha, Cuttack.**
3. All other detail information can be seen in the Bidding documents and can be downloaded from the Govt. of Odisha web site (<https://odisha.gov.in>).
4. Authority reserves the right to reject any or all the tenders without assigning any reasons thereof.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack
09/04/26

CHECK LIST TO BE FILLED UP BY THE BIDDER

Sl. No.	Particulars	Reference To	Weather Furnished		Reference To Page No.
			Yes	No	
1.	Cost of tender paper ₹ 10,000.00 (Cash/Demand Draft)	Clause No. 5 & 13			
2.	Earnest Money ₹ 78,096.00 Either in shape of NSC / KVP / BANK GURANTEE/FIXED DIPOSIT / TDA from any Nationalized/Scheduled bank payable at CUTTACK or / Postal Savings Passbook / Postal Office Time Deposit Account only, duly pledged in favour of Executive Engineer[C], Directorate of Fisheries, Odisha, Cuttack.	Clause No. 4, 7 & 64			
3.	Additional Performance Certificate in case the bid price/rate is less than the estimated cost put to tender	Clause No. 9			
4.	Copy of Valid registration Certificate	Clause No. 7 & 20			
5.	Copy of Valid GST Regd. Certificate & GSTIN	Clause No. 7 & 20			
6.	Copy of Valid Pan Card	Clause No. 7 & 20			
7.	Annual Financial Turnover Certificate from C. A (For last five financial year i.e., from Year 2020-21 to Year 2024-25)	Clause no.72			
8.	No Relation Certificate (Schedule – A)	Clause No. 54			
9.	Works Experience: -				
(i)	List of projects executed that are similar in nature to the work (last five financial year) i.e., from year 2020-21 to year 2024-25 (Schedule-C)	Clause No.57			
(ii)	Works in hand List of projects in progress that are similar in nature to the work (last five financial year) i.e., from year 2020-21 to year 2024-25 (Schedule – B)	Clause No.57			
10.	Information regarding current litigation, debarring/expelling of the tender or abandonment of the work by the tenderer (Schedule – D)	Clause No. 73			
11.	Affidavit (Schedule – E)	Clause No.74			
12.	MOU (Memorandum of understanding duly notarized) with eligible registered electrical contractor having valid H.T/L. T/ M.V license with electrical contractor license, GST and Pan Card)	Clause No.71			
13.	Personal information regarding the tenderer i.e., Phone No., Email ID, FAX	Clause No. 70			
14.	Tools and Plants and Machineries as per the requirement (Proof of Ownership of T&P and Machineries are to be furnished in shape of copy of invoices/ required sale deed in case of 2 nd purchase/ required lease deed with ownership documents of the leaser dully attested/ Affidavit showing the possession. In case of centring and shutting materials an affidavit regarding possession of materials should be submitted)	Clause No. 57			
	LIST OF PLANTS AND EQUIPMENTS	REQUIREMNT			
A.	Truck/ Tipper	2 no			
B	Tractor with Trolley	2 no			
C	Water Tanker (4000 Ltr.)	1 no			
D	Needle Vibrator	2 no			
E	Plate Vibrator	2 no			
F	Generator (10 KVA)	1 no			
G	Concrete Mixer	1 no			
H	Centring and Shuttering Material	200 Sqm			

CONTRACT DATA

A. GENERAL INFORMATION

Sl. No.	Particulars	Details
1.	Bid Identification No.	584 Dt. 09.04.2026
2.	Name of the work	RENOVATION, UP-GRADATION & EXPANSION OF OFFICE BUILDING OF ADF (M) AT HUMARI (CHHATRAPUR) IN GANJAM DISTRICT
3.	Officer inviting tender	Executive Engineer (Civil), Fishery Engineering Division, Cuttack
4.	Accepting Authority	Executive Engineer (Civil), Fishery Engineering Division, Cuttack
5.	Estimated Cost put to tender	₹ 78,09,532.00 (RUPEES SEVENTY-EIGHT LAKH NINE THOUSAND FIVE HUNDRED THIRTY-TWO ONLY)

B. BID INFORMATION

Sl. No.	Particulars	Details
1.	Intended Completion period / Time period assigned for completion	6 (SIX) Calendar Months
2.	Date from which the tender paper can be sold	Dt. 16.04.2026
3.	Last date & time for submission of bid.	Dt. 28.04.2026 up to 2:00 P.M.
4.	Location where the tender paper can be sold & received	O/o- The Executive Engineer (Civil), Fishery Engineering Division, Cuttack & O/o- The Additional Fisheries Officer (M), Chhatrapur, Ganjam
5.	Cost of tender paper	₹ 10,000.00 (To be paid through cash or DD)
6.	EMD Amount	₹ 78,096.00 (To be pledged in shape of NSC / KVP / BANK GURANTEE/FIXED DIPOSIT / TDA from any Nationalized/Scheduled bank payable at CUTTACK or / Postal Savings Passbook / Postal Office Time Deposit Account
7.	Bid validity Period	90 (Ninety) Calendar days
8.	Currency of contract	Indian Rupee
9.	Language of contract	English

**OFFICE OF THE EXECUTIVE ENGINEER (CIVIL)
DIRECTORATE OF FISHERIES, ODISHA,
CUTTACK**

DETAIL TENDER CALL NOTICE

1. Sealed tenders (Percentage rate bids) in prescribed form to be eventually drawn up in P.W.D. form no. P-1 will be sold & received up to **2.00 P.M** on **Dt. 28.04.2026** by the **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack** for the work **“RENOVATION, UP-GRADATION & EXPANSION OF OFFICE BUILDING OF ADF (M) AT HUMARI (CHHATRAPUR) IN GANJAM DISTRICT”** from **“B”** class contractors and will be opened by the **Executive Engineer[C] Directorate of Fisheries Odisha, Cuttack** in the presence of the tenderer or their authorized agents who wishes to attend at **11:00 A.M. on Dt. 30.04.2026** in O/o the Undersigned. The amount of the estimate is approximately **₹ 78,09,532.00**.
2. The tenderer should please note that the work will have to be completed within **06 [SIX] calendar months**, commencing from the date of issue of work order. 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 incase of failure on the part of the agency to achieve the milestone liquidated damage will be imposed. Without these Programme of works, the tender will not be accepted. Authority for acceptance of tenders would rest over the Executive Engineer (Civil), Directorate of Fisheries, Odisha Cuttack.
3. The tender call notice can be seen from official web site of Government of Odisha (<http://www.orissa.gov.in>) The bidding documents can also be downloaded from internet site. The bidder who down load the bidding document from the internet site will have to pay the cost of bid document i.e. **[₹. 10,000/-]** in shape of demand draft from any Nationalized/Scheduled bank payable at **Cuttack** in favour of **Executive Engineer[c] Directorate of Fisheries, Odisha, Cuttack** and submit the demand draft in separate envelop marked **‘cost of the bidding document downloaded from internet ‘with** bid documents. The authority will not responsible, if any portion of the approved documents available in the office of **Executive Engineer[C], Directorate of Fisheries, Odisha, Cuttack** is excluded or modified. The download facility will be available up to last date of sale of tender papers. The cost of bid documents is not refundable.
4. Tenderer are required to pay earnest money **₹ 78,096.00** Either in shape of NSC / KVP / BANK GURANTEE/FIXED DIPOSIT / TDR from any Nationalized/Scheduled bank payable at **CUTTACK** or / Postal Savings pass book / Postal Office Time Deposit Account only, duly pledged in favour of **Executive Engineer[C], Directorate of Fisheries, Odisha, Cuttack** otherwise tender will not be considered.
5. Bidding documents requested by mail will be dispatched by registered/speed post on payment of an extra amount of Rs.500.00 (Rupees five hundred) only over the cost of documents. The Department will not be held responsible for the postal delay if any, in the delivery of the documents or non-receipt of the same.
6. If the tender documents sent through registered / speed post, do not reach in the concerned office by the above date and time, the offer will not be considered on any account even if the tender documents were dispatched by the tenderer before the due date.
7. The tender is to be submitted with EMD, signed DTCN, attested copy of registration certificate, PAN

card, valid GSTIN, original Money Receipt, certificates duly filled-in and documents required as per the relevant clauses of this DTCN and special conditions if any. The cover is to be sealed and super scribed for the work **“RENOVATION, UP-GRADATION & EXPANSION OF OFFICE BUILDING OF ADF (M) AT HUMARI (CHHATRAPUR) IN GANJAM DISTRICT”** In order to ensure that the envelopes are properly sealed, the contractor can seal them with superglue and also add tamperproof tapes as additional precaution. Bidders desirous to hire machineries or equipments from outside the state are required to furnish 2% of the amount put to tender as Bid Security. The bidder claiming for exemption of EMD amount must submit application separately for such purpose along with the documentary proof in Original on the date & time of opening of tender otherwise his tender is liable for rejection.

8. The tenderer are not required to write their name on the outer cover containing the bid documents. They are only required to write the name of the work and authority who had issued the tenders. The tender submitted in the wrong box shall not be taken in to consideration.

9. Additional Performance Security;

9.1 The selected bidder shall deposit Additional Performance Security on an incremental basis for low bid prices, in accordance with Office Memorandum No. 173 dated 03.01.2026 and Office Memorandum No. 632 dated 09.01.2026 issued by the Works Department as under.

9.2 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.

9.3 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;

9.4 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

9.5 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.

9.6 The additional performance security shall be treated as part of the performance security!

Additional Performance Security (APS) is being obtained from the Successful Bidder when the Bid amount is less than estimated cost put to tender to the extent as given in the table below, in shape of Term Deposit Receipt pledged in favour of Divisional Officer/Bank Guarantee in favour of the Divisional Officer from any Nationalized /Scheduled Bank in India counter guaranteed by its local branch at Cuttack within seven days of issue of Letter of Acceptance (LoA) by the Divisional Officer (by e-Mail) to the successful bidder otherwise the bid of the successful bidder shall be cancelled and the he will be debarred from tendering for a period of 180 days. Further, proceeding for Blacklisting shall be initiated against the bidder as per amendment to Para 3.5.5 (v) of OPWD Code Volume-I vide Works Department Office Memorandum No. 14459/W dated 20.09.2018.

10. 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.

11. If the rate quoted by the SC ST Category contractors comes to the rate quoted by the L1 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.

12. 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 the 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 abnormally low bid.

13. Besides the earnest money deposit and initial security deposit, contractors of all class except C&D class will be required to furnish security deposit by way of deduction from their bills at the rate of 5% of the gross amount of each bill whereas in case of C&D class contractor, such deduction will be made at the rate of 3% of the gross amount of each bill. Thus, the total securities deposit from the contractor will be 7% for super, special, A & B and 5% for 'C' and 'D' class contractor as case may be.

14. In case of Govt. parties, co-operative Societies Diploma or Degree holders in Engineering who are registered with the Department, the rules framed by the government from time to time about EMD deposit, initial security deposit will apply.

15. The Bids will be opened on **Dt. 30.04.2026** at **11:00 A.M** by **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack**, in the office of the **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack** in the presence of the bidders or their authorized representatives who wish to attend. If the office happens to be closed on the last date of receipt or opening of the bids as specified, then the bids will be received / opened on the next working day at the same time and venue unless otherwise notified.

16. The plan and specifications for the work can be seen in the Office of the **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack** during working hours and days, Complaints at a future date that the plan and specifications have not been seen cannot be entertained. The Contractor may obtain a set of tender documents for the work from the office of the **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack & O/o- Additional Fisheries Officer (M), Chhatrapur, Ganjam** on payment of **₹ 10,000.00**, which is non-refundable. The name of the work should be super scribed on the top of the cover.

17. All other information's can be obtained on application to the **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack**.

18. The Executive Engineer (C), Directorate of Fisheries Odisha reserves the right to reject any or all the

tenders without assigning any reasons thereof.

19. The tenderer whose tender is selected for acceptance shall within a period of seven days upon written intimation being given to him of acceptance of his tender make an initial security deposit of 1% (One percent) of the tendered amount, so that the earnest money and initial security deposit will be 2% of the tendered amount and sign the agreement in the P.W.D. form No. P-1 for the due fulfillment of the contract in the office of the **Executive Engineer[C] Directorate of Fisheries Odisha, Cuttack.**

20. This security deposit, together with the earnest money and the ISD amount withheld according to the provision of P-1 agreement shall be retained as security deposit for the due fulfillment of this contract. Failure to enter into the required agreement and to make the security deposits above shall entail forfeiture of the earnest money. No tender shall be finally accepted until the required amount of security money deposited. The written agreement to be entered into between the Contractor and the Govt. shall be the foundation right of the parties and the contract shall be deemed to be incomplete until the agreement has first been signed by the contractor and then by the proper officers authorized to enter into the contract and then by the proper officers authorized to enter into the contract on behalf of the Govt. The Dept. will accept the security deposits in the form of NSC / KVP / BANK GUARANTEE/FIXED DIPOSIT / TDA (from any Nationalized/Scheduled bank payable at (**Cuttack**) or / Postal Savings pass book duly pledged in favour of **Executive Engineer[C] Directorate of Fisheries Odisha, Cuttack** and in no other form.

21. The rates (in percentage of excess / less / at par the estimate value) should be quoted in words and figures otherwise the tender will be liable for rejection.

In case of discrepancy in rates between words and figures, the rate in words shall prevail and in case of discrepancy between units. rate & totals the unit rate shall prevail. The tender shall be written legibly and free from erasures, over writings or in cases where corrections are unavoidable the same should be made by scoring out. initialing dating and rewriting.

22. The contractors will be responsible for payment of all royalties, D.M.F, E.M.F, Additional Charges or other charges for quarrying materials. All local taxes inclusive of State Sales Tax & Income tax, Ferry. Tollage Charges, Octroi taxes, labour CESS is to be paid by Contractor.

23. The tender may not, at the discretion of the competent authority be considered unless accompanied by attested copies of Valid Registration Certificate, the original money receipt towards purchase of tender documents, GST certificate, Pan card. non- assessment certificate. The original certificates of the same only should be produced before the **Executive Engineer[c] Directorate of Fisheries, Odisha, Cuttack** for verification within **03 (three) days** of opening of tender, otherwise the bid shall be considered as non – responsive and thus will be summarily rejected.

24. If the contractor removes any materials or stock so supplied to him from the site of work with a view to dispose of the same dishonestly. he should in addition to any other liability. Civil or Criminal arising out of the contract be liable to pay a penalty equivalent to five (5) times the price of the materials or stock according to the stipulated rates and the penalty so imposed shall be recovered from any sum that may then or at any time thereafter become due to the contractor or from his security or from the 'proceeds of sales thereof.

25. The contractor should be fully liable to indemnify the department for payment of any compensation under 'Workmen's' compensation Act VIII of 1928 on account of the workman being employed by

him and the full amount of compensation paid will be recovered from the contractor.

26. Every tenderer must examine the detailed standard specification of Odisha before submitting his tender. The right is reserved without impairing the contract to make such increase or decrease in the quantities or items of work mentioned in the schedule attached to the tender notice as may be considered necessary to complete the work fully and satisfactorily. Such increase or decrease shall in no case invalidate the contract or rates. It shall be understood that the Govt. do not accept any responsibility for the correctness or completeness of the quantities shown in the Schedule. The schedules are liable to alternation by omission, or additions and such omissions or deductions shall in no case invalidate the contract and no extra monetary compensation will be entertained.

27. The following materials will be supplied by the Department to the contractor at Godown at the price inclusive of storage charges as noted against each. After issue it will be contractor's responsibility for safe custody and upkeep of materials. He has also to bear all incidental charges such as transportation. Storage handling and return of empty cement bags and empty paint drums at the issuing stores. His rates quoted for the work to be inclusive of all such charges.

a. Cement in gunny bags at the rate of Rs-..... Rupees (.....-.....) per quintal excluding cost of empty gunny bags.

b. Paints.

c. M.S. Rods will be supplied at the rate of Rs-...../ Qntl.

d. Tor steel will be supplied at the rate of Rs-...../ Qntl.

28. All the materials which are to be supplied from P. W.D. Stores will be as per the availability of stock and the contractor will have to bear charges of straightening cutting, jointing, welding cranking, hooking etc. of M.S. Rods or tor steel to required size. No cut pieces of M.S. rods, M. S. Angles, Tees & joints etc. will be accepted back as surplus and all these will be contractor's property. After issue from the P. W.D. stores the materials will be under the custody of the contractor and the contractor will be responsible for its safety and storage.

29. Empty cement bags and empty paint drums etc. are to be returned in good and serviceable conditions at the issuing stores failing which Rs-..... (Rupees-.....) only will be recovered per bag and per drum respectively from the contractor.

30. All reinforced cement concrete work should conform to Orissa Detail standard specification and should be of proportion 1 :2:4 / 1 :1/1/2:3 having minimum compressive strength in work test of 150 Kg / cm² / 200 Kg / Cm² in 15 Cm cubes at 28 days after mixing and tests conducted in accordance with IS: 1456 & 516 using 12 mm to 20 mm size hard black broken granite chips (20 mm size not to exceed 25%).

31. Shuttering and centering shall be with seasoned Sal wood planks and the Inside of which shall be lined with suitable sheeting and made leak proof and water tight or alternatively steel shuttering may be used.

32. The selected contractor may take delivery of departmental materials according to his need for the work issued by the Sub -Divisional. Officer or Assistant Engineer in charge of the work. The contractor shall make all arrangements for proper storage of materials, but no cost for shed for the storage of materials and pay of watchman etc. be borne by the Dept These are also to be borne by the contractor. The department is not responsible for considering the theft of materials at site. It is contractors risk under any such circumstances if the contractor stops the work he shall have to pay the full penalty as per clauses of the PI contracts.

33. For the purpose of jurisdiction in the event of dispute if any, contract should be deemed to have entered into within the state of Orissa and it is agreed that neither party to the contract nor the agreement will be competent to bring a suit in regard to the matters covered by this contract at any place outside the State of Orissa.

34. After the work is finished all surplus materials and debris are to be removed by the contractor and preliminary work such as Vat, mixing platform etc. are to be dismantled and all the materials are to be removed from the site. The ground up to 30 M (100 Ft) wide from the building should be cleared and dressed.

No extra payment will be made to the contractor on this account. The rate quoted should be inclusive of all these items.

35. The contractor shall not interfere with the execution of water supply or Electrical fitting arrangements and any other works entrusted to any other agency by the department at any time during the progress of the work.

36. The Department will have the right to inspect the scaffolding & centering made for the work and can reject partly or fully such structures if found defective in their opinion.

37. The contractor will have to arrange for water supply for all works and make necessary sanitary arrangements at his own cost for his labour camp. Contractor has to arrange adequate lighting arrangements for night work whenever necessary at his own cost.

38. Bailing out water from the foundation either rain water or subsoil water if necessary should be borne by the contractor. No payment will be made for bench marks, level pillars, profiles & benching and leveling round where required. The rates quoted should be for finished items of work inclusive of those incidental items of work.

39. All the quantities mentioned in the schedule are combined for ground floor and multi floors in case of multi-storied building and the rates should be through for the same.

40. Cement concrete in roof slab, beams etc. wherever prescribed by the Engineer-in-charge shall be machine mixed and vibrated and the contractor should arrange his own concrete mixers, vibrators, pumps etc. for the purpose.

41. It should be understood clearly that no claim what so ever will be entertained in regard to extra items of works or extra quantity of any items besides estimated amount. A written order must be obtained from the responsible works officer of fisheries department. and rates settled for the extra items of works or extra quantity of any item of work according to clause II of P1 contract The rates of any item not covered in the Agreement will be arrived on derivation from the rate of same class of item of work with any different specification provided in the agreement with addition or subtraction of corresponding cost of materials. In case, no rate can be derived from the agreement, the same will be arrived or derived from the schedule of rates in vogue at the time of actual execution of that item of work.

42. The tenderer shall have to abide by the OPWD safety code rules introduced by the Govt. of India Ministry of Works, Housing & Supply in their standing order No. 44 to 50 Dt. 25-11-57 which can be seen in the office of the Executive Engineer(C) Directorate of Fisheries, Orissa, Cuttack on working hours and days.

43. Tenderer are required by the Fair wage clause as introduced by the Govt. of Orissa, Works Dept. No. CA. VIIIIR 18/52-25 Dt. 26-2-55 & No.11 M/ 56/61-28842 (5) Dt. 27-9-61 in case of any complaint by the labourers working about the nonpayment or less payment of his/her wages as per minimum wages act the

Executive Engineer will have the right to investigate and if contractor is found to be in default he may recover such amount from the dues of the contractor and pay the due amount to such labourer directly under intimation to the local labour officer and the Govt. and the decision of the Executive Engineer(C) Directorate of Fisheries, Orissa, Cuttack will be final and binding on the contractor.

44. The department will have the right to supply at any time in the interest of the work any departmental materials to be used in the work, in addition to those mentioned In the clause and the contractor shall use such materials without any controversy or dispute on that account. The rates of such materials will be at the stock issue rates fixed by the department plus storage charges or market rates whichever is higher.

45. The contractor will be responsible for the loss or damage of any departmental materials equipments supplied to him under clause 13/30 during execution of the work due to reasons whatsoever and the cost of such materials will be recovered from him at the prevailing stock issue rate plus storage charges or market rates whichever is higher.

46. The contractor should arrange at his own cost necessary tools & plants, machines, concrete mixers & Vibrators & other machineries such as pumps etc. required for the efficient execution of the work and the rates quoted should be inclusive of the running charges of such plant and cost of consumables.

47. The contractor will have to submit the **Executive Engineer[C], Directorate of Fisheries, Odisha, Cuttack** monthly return of labour both skilled and unskilled employed by him on the work.

48. The tenderers are required to go through such clause of P. W.D. Form No F2 carefully in addition to clause mentioned herewith before tendering. No part of the contract shall be sublet without written permission of the Executive Engineer(C) Directorate of Fisheries, Odisha, Cuttack or transfer made by power of attorney authorizing others to receive payment on the contractor's behalf.

49. If further necessary information is required, the **Executive Engineer[C], Directorate of Fisheries Odisha, Cuttack** will furnish such, but it must be clearly understood that the tenders must be received in order and according to instructions.

50. Cement shall be used by bags and weight of one cubic meter of cement being taken as 14.42 quintals.

51. In the event of any delay due to Dept. in the supply of departmental materials or supply of detailed structural designs for unavoidable reasons, reasonable extension of time will be granted on the application of the contractor. But no claim for monetary compensation will be entertained under any such circumstances for which a no claim undertaking has to be furnished by the contractor in the prescribed Performa along with the application for extension of time submitted by him.

52. No contractor will be permitted to furnish their tenders in their own manuscript papers.

53. Every tenderer is expected before quoting his rates to inspect the site of proposed work. He should also inspect the quarries and satisfy himself about the quality, availability of materials, medical aids. labour & food stuffs etc. and the rates should be inclusive of all those Items of work. In every case the materials must comply with the relevant specifications and samples of stones, metals, chips etc. and other materials to be used are to be deposited in sealed bags duly labeled noting the name of quarry under dated initials by the tenderer for approval of the Executive Engineer(C) Directorate of Fisheries, Odisha, Cuttack.

54. Govt. will not however, after acceptance of contract rate pay any extra charges for lead or any other reasons in case the contractor is found later on to have misjudged the materials available.

55. All fitting for doors & windows if supplied by the Contractor should be of best quality and should be got approved by the Executive Engineer(C) Directorate of Fisheries, Odisha, Cuttack before they are used in the work.
56. The tenders containing extraneous conditions not covered by the tender call notice are liable for rejection.
57. The contractor shall have to furnish a certificate along with tender to the effect that he is not related to any officers of the rank of Asst. Engineer and above and any officer of the rank of Under. Secretary & above of the Fisheries Department.
58. All the tenders received will remain valid for a period of ninety days from the date of receipt of tenders. The period of validity can also be extended if agreed to by the Dept. and the contractor.
59. After completion of the work the contractor shall arrange at his own cost all requisite equipment for testing building if found necessary and bear the entire cost of such test.
60. Tenderers are required to submit **(1) a list of works in their hands in the prescribed proforma enclosed herewith (2) list of T & P (3) List of works executed along with the tender.**
61. Letter etc. found in the tender box raising or lowering rates or dealing with any point in connection with the tender will not be considered.
62. All reinforced cement concrete works like lintels, column, beam, chajja. Roof slab & other such works should be finished smooth and No extra charges for plastering if required shall be paid by the Dept.
63. The contractor shall employ one or more Engineering Graduate or Diploma Engineers as apprentices at his own cost for works costing As. 2.5 lakhs or more. The period of employment will commence within one month from the date of issue of work order and would last till the date when 90% of work is completed Number of apprentices employed should fixed by Executive Engineer in a manner so that the total expenditure does not exceed 1 % of the Tendered cost of the work (under works & Transport Dept. No. 67811 Dt. 12-8-67).
64. The tenderer shall bear cost of various incidental sundries and contingencies necessitated by work falling within the following or similar category.
- a. Rent royalties and other charges of materials. Octroi duties, all other taxes Including sales tax, ferry/ tools conveyance charges and other cost on account of land and building including temporary building required by the tenderer for collection of materials storage housing of staff or other by the tenderer for purpose of the work. No rent will however be payable to Govt. for temporary occupation of land or owned by Govt. at the site of the work.
- b. labourers camp or huts necessary to a suitable scale including conservancy and sanitary arrangements there in to the satisfaction of the local health authorities.
- c. Suitable water supply including pipe water supply wherever available for the staff and the labour as well as for the work.
- d. Fees and dues levied by the Municipal Canal or water supply authorities.
- e. Suitable equipments and wearing apparatus for labour engaged in risky operations.
- f. Suitable fencing barriers signals including paraffin & electric signals where necessary at works and approaches in order to protect the public and employees from accidents
- g. Compensation including cost of any suits for injury to persons or property due to neglect or any

major precautions and also sums which may become payable due to operation of workmen compensation act.

h. The contractor has to arrange adequate lighting arrangements for night work wherever necessary at his own cost.

i. The contractor has to arrange all the building materials including equipments required ... undertaking under-reamed piles foundation for starting the work, if required.

65. 1% (One percent) of gross amount of the bill be deducted towards Income-tax from the contractors bills.

66.

a. If during the progress of work the price of any materials in the work not being materials supplied from the Engineer-in-charge's stores (in accordance with clause hereof) increase or decrease as a result of increase or decrease in the average wholesale price index (all commodities). and the contractor thereupon necessarily pays In respect of that material (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 75% 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 tender was opened. as per the Formula indicated below-

Formula to calculate the. increase or decrease in the price of material

$$V_m = \frac{0.75 \times p_m}{100} \times \frac{R(1-I)}{10}$$

V_m = Increase or decrease in the cost of work during the quarter under consideration due to change in the price of materials.

R = The value of work done in rupees during the quarter under consideration.

IO = The average wholesale price index (all commodities) for the quarter In which the tender was opened as published in the Indian labour journal/Economic Adviser, Ministry of Industries, Govt. of India.

I = The average wholesale price index (all commodities) for the quarter under consideration.

P_m = Percentage of material component as per Sub-clause of this clause.

b. Similarly, if during the progress of work, the wage of labour increases or decreases as a result of Industrial workers (Wholesale price) which is operating for the quarter under consideration and that operated for the quarter in which the tender was opened as per the formula Indicated below;-

Formula to calculate the increase of decrease in the cost of labour

VI = Increase or decrease in the cost of work during the quarter under consideration due to change in the rate of labour.

R = The value of work done in Rupees during the quarter under consideration.

IO = The average consumer's price Index for the quarter industrial workers (wholesale price) for the quarter in which tender was opened.

I = The average Consumer's Price Index for Industrial workers (Whole sale price) for the quarter under consideration

PI = Percentage of Labour Component as per Sub-clause of this clause.

- c. Similarly, if during the progress of work, the price of petrol. Oil and lubricants (Diesel Oil being the representatives for price adjustment) increases or decreases as a result of the price fixed therefore by the Govt. of India and the contractor thereupon necessarily and properly pays such increased or decreased price towards petrol, PO L and Lubricants used in execution of the work. then he shall be entitled to reimbursement or liable to refund, quarterly as the case may be such difference in an amount, as shall be equivalent to the plus or minus difference in between the price of POL which is operating for the quarter under consideration and that operated for the quarter in which the tender was opened as per the formula indicated below.

Formula to calculate the increase or decrease in the price of POL $KI = 0.75 \times \frac{R_2}{100} \times R \times \frac{(I_2 - I_1)}{I_1}$

KI = Increase in the cost of work during the quarter under consideration due to change in the price of PO.L.

R = The value of work done in Rupees during the quarter under consideration.

I₁ = Average price per liter of diesel Oil was fixed by the Govt. of India during the quarter in which the tender was opened.

I₂ = Average price per liter of diesel Oil which is fixed during the quarter under consideration.

K2 = Percentage of P.O.L. component as per Sub-clause of this clause

- d. The following shall be the percentage of materials. labour and P.O.L. Component for reimbursement refund on variation in price of material, labour and P.O.L as per Sub-clause (a), (b) & (c) of this clause.

(Category of Work) W	Contractor's supply			Dept. supply of materials
	% of Material	% of Labour	% of P.O.L.	
Irrgn. Works				
(A) Structural works	20%	30%	5%	45%
(B) Earth work, Canal work, embankment work etc.	20%	60%	5%	15%
R & B Work:				
(a) Bridge work	20%	30%	5%	45%
(b) Road Work	45%	40%	5%	10%
(c) Building Work	30%	30%	5%	35%

ick is supplied by the Dept. It should be 20% instead of 30%)

- e. Reimbursement/refund on variation in price of materials. labour and POL as per Sub- clause (a), (b) and (c) of this sub-clause shall be applicable only in respect of contract of one year or .more provided that the work has been carried out within the stipulated time or extension thereof as for not attributable to contractor. However the original contractual period is less than one year but subsequently it has been validly extended and the period becomes one year or more escalation clause shall be applicable only for the balance portion of work

to be executed beyond one year provided the delay is not attributable to the contractor.

f. The contractor shall for the purpose of sub-clause (a),(b),(c) of this clause keep such books of account and other documents as are necessary to show the amount of increase claimed or reduction available and shall allow inspection of the same by a fully authorized representative of Govt. and further shall at the request of the Engineer in charge may require any document kept and as such other information as the Engineer-in-charge may require.

The contractor shall within a reasonable time of his becoming aware of any alternation in the prices of such material, wages or 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 together with and information relating thereby which he may be in a position to supply No claims for price adjustment other than these provided herein shall be entertained.

67. The bidder shall furnish an affidavit in support of authenticity of documents , relaxation of EMD in case of Engineer Contractor along with the bid. The authority reserves the right to verify the authenticity of documents in case of any doubt or complain.

68. The schedule caste / schedule tribe contractors' desires to avail the facility of 10% price preference should enclose the copy of their registration certificate stating fact of the caste by their registration authority with the bid, failing which they will not get the price preference as per rule in force.

69. Submission of more than one tender paper by a bidder for a particular work will liable for rejection of all such tender papers.

70. Over and above to these conditions the terms and conditions and rules and regulations as laid down in Orissa Detailed Standard Specifications and Orissa P. W. D. code and it's up to date amendments/contractual provisions are also binding on the part of this contract.

71. The date of issue of the notice to the contractor to attend **Office of Executive Engineer[C] Directorate of Fisheries Odisha, Cuttack** for signing the agreement shall be treated as the date of commencement of work.

72. As goods & service tax has come in to force with effect from 01.07.2017 GST as applicable will be paid extra after gross bill amount prepared.

73. Bidders must furnish their present e-mail address/ fax no./ telephone no. for correspondence.

74. The civil contractor in order to take part in the composite tender should enter into an M.O.U. (Memorandum of Understanding duly notarized) with eligible registered electrical contractor having valid H.T./ L.T./ M.V. license, for execution of electrical installation and other electrical works and a copy of such M.O.U. should be attached with the tender which tender which shall form a part of tender. A copy of electrical license, GSTIN Certificate and PAN Card should also be enclosed with the tender papers, the original of which need to be furnished during verification. The above M.O.U. is not required in case of civil contractor having valid registration in H.T/ L.T/ M.V. electrical license with the same & style.

75. To qualify for award of the contract each bidder in its name should have satisfy the following criteria.

- (i) Achieved minimum annual financial turnover (In all class of civil class of construction works only) 60% of amount put to bid i.e., **46.86 Lakh** during last 5 years i.e., 2020-21 to 2024-25. Turnover certificate from chartered account mentioned in UDIN must be enclosed with the bid.
- (ii) The bidder should have satisfactorily completed at least 1/3rd of the estimated amount put to tender i.e., **26.04 lakhs in a single contract (composite type)** as similar nature of works in any one financial year during last five financial years. (*Similar nature of works mean civil works inclusive of electrical & P.H works*).

76. To qualify for award of the contract each bidder in its name should furnished an affidavit regarding current litigation, debarring expelling of bidder or abandonment of the work.

77. To qualify for award of the contract each bidder in its name should furnished an affidavit regarding authenticity of his license, GST, PAN Card, EMD/ APS and any other supporting documents furnished by the bidder in the tender.

(SEVENTY-SEVEN) Clauses only.

Sd/-
Executive Engineer (C)
Directorate of Fisheries,
Odisha, Cuttack.

TECHNICAL SPECIFICATIONS OF P.H. PORTION OF WORK

A. WATER SUPPLY & SANITARY INSTALLATIONS:

Materials of following standard manufacturers are to be used in the work. The contractor shall indicate, in the offer, the brand or make of the materials, for which the rates are quoted.

a. **Sanitary fixtures:**

b. To be of best quality vitreous ware of porcelain.

i. Indian water closet

ii. Foot Rests

iii. Wash Hand Basin

iv. Kitchen Sink, Hindware/ Parry Ware / Neycer/ ISI marked

v. Urinals

vi. Drain Board

vii. Odisha Pan

viii. European Water Closet & Low Level Flushing
Cistern.

b. **C.I. High Level Flushing Cisterns** : Sushila Industries Prabhat Iron Foundry / East India Steel / I.S.I. marked.

c. **H.C.I. Soil Waste Pipes:** : Confirming to I.S.I. 1729-1954, having I.S.I. Mark d.

C.P. Bath Room Fittings : Plaza/ Jaquar I.S.I. marked & confirming to-latest ISS

e. **Brass Fittings** : Shakti/Anupama /Luster/1.S.I.Marked f.

Gunmetal Valves : Anupama / Leader / B.S.I.S.I. marked

g. **G.I. Pipes (Medium Class)** : Manufactured by TATA / JINDAL / B.ST. having
I.S.I. Mark

h. **Galvanised Iron fittings** : I.S.I. marked C/R brand

Galvanised Iron fittings

i. **Paints** : Asian / Berger / Jonson/Confirming to I.S.S

j. **Cast Iron Manhole cover frame** : Sushila Industries / Prabhat Iron Foundry / East
India Steel make confirming to ISS 7.26

k. **Stone Ware Pipes & Fittings** : Manufactured by Odisha Ceramic Industries / Odisha
industries / Keshab Ceramic confirming to
I.S.S. Specification No.651 / 1980 {Grade A}

l. **P.V.C. (S.W.R.) & P.V.C (Rigid.) Pipe/Fittings** : Manufactured by the Supreme Industries Ltd.,
Bombay / Oriplast, Balasore Duroplast confirming to
I.S. Specification No. 4985/81 (Class IV)

B. BUILDING MATERIALS:**a. Bricks**

Bricks shall be of locally available best quality Fly Ash. Bricks shall be well compacted, uniform, grey or ash coloured, free from cracks and flaws, well shaped, uniform in size, homogeneous in textures and shall emit a clear metallic sound when struck, bricks shall have a minimum crushing strength 75 Kg/Cm^2 and shall not absorb water more than 20% by weight.

b. Cement Mortar

Mortar shall be well mixed to a uniform colour and consisting in the proportion as specified in the items of work. Sand shall be measured on the basis of its dry volume and the quantity shall be adjusted for bulking of damp sand. Cement shall be mixed, taking 50 kg. or 0.035 Cum. in volume only required quantity that can be consumed within 30 minutes of adding water shall be mixed at one time.

c. Cement

Cement should conform to IS-269/IS-455

d. Sand:

Locally available best river sand medium size

e. Coarse Aggregates

The coarse aggregate shall be of hard granite stone and shall generally conform to I.S. 389. Porous coarse aggregate shall not be used. The aggregate shall be free from clay films and other adherent coatings. Aggregate containing clay films over the stone materials shall be thoroughly washed. The aggregate shall be from approved quarry and crusher broken. Coarse aggregates shall be composed of particles ranging between the sizes 2.36 to the maximum size as may be specified in the relevant item of work, within the range, the aggregates shall be well graded so as to produce a dense concrete.

f. Reinforcements:

Mild steel Round Bars, coiled twisted and deformed bars of steel of medium tensile strength will be used as reinforcement as per drawing and design and directions. Mild steel bars shall conform to I.S.:226/1962 standard quality or IS:432/1966 - Grade-1. Black annealed wire (Not thinner than 24 gauge for tying the reinforcements shall be used)

TECHNICAL SPECIFICATION FOR SANITARY & PLUMBING WORKS

A. Sanitary Ware & allied fittings:

1. General

All Sanitary fixtures and their allied fittings, should be of first quality, manufactured by Hindustan Sanitary Ware / Parryware / Nycer, These should be approved by the Engineer-in-charge of the G.P.H. Wing before use.

2. Squatting Pattern W.C. (pan) (Odisha Pattern Closets):

The water closet shall be of vitreous China of specified size and pattern, with an integral flushing rim. It shall have the flushing inlet at the back. The Odisha closet should be of approved quality confirming to I.S.S.-2656 (Part-III).

The squatting type Indian Water Closet (Odisha 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 proportion, 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 leak proof.

3. Flushing Cistern

The flushing of the Indian water closet (Odisha Closet) shall be done by C.I. or Polyaterine High Level low-level porcelain valve-less syphonic flushing 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 32 dia O.I. flush pipe, made from G.I. Pipe (Light Quality) or 32 dia P.V.C. Pipe as specified in the tender schedule. The flush pipe with an offset should be fixed to wall by using C.I. Holder Bat Clamps. The capacity of the cistern should be 10 Ltrs. as per I.S.S. 15 Ltrs. In case of low-level cisterns. The Cistern shall be fixed on cast Iron or Rolled Steel Cantiliver Brackets (Bulltin type), which shall be firmly embedded in the wall, with C.C. 1.2.4. The Cistern shall be provided with 20mm dia P.V.C. 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 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 Cistern shall be painted with two coats of approved black bitumen paint. The Outer face of the 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 rate quoted for the flushing cistern. The inlet connection to the Cistern shall be made with 450 mm 1 cmg 15 mm dia P.V.C. Heavy type connection Pipe.

4. 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 as specified. Each basin shall be provided with one 15 mm dia C.R Brass Pillar Tap, 32mm dia C.R Waste, C.R. Chain and Rubber Plug, Unions, Joints, C.P Bottletrap cast 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) embedded and fixed in wall with cement concrete, 1.2.4. These brackets shall be painted to the required shade with two coats of approved synthetic enamel paint over a coat of priming.

The waste of the Basin shall discharge into a floor trap or Channel through bottle traps 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 Pipe, to discharge the waste to the aforesaid floor trap. The inlet connection to the Basin shall be made with 450mm Long 15mm dia Heavy type P.V.C. connection pipe.

5. 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 approved quality, make a brand, confirming to T.S.S, It shall be of one piece construction with integral combined overflow. The size of the sink and Drain Board shall be as specified.

Each Sink shall be provided with one 15mm dia C.P. brass, Bib Cock, long body, 40mm C.P. Waste with overflow C.P. Chain & 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 1.2.4. 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 P.V.C. Pipe jointed to the waste of the Sink with a Brass union nut.

6. Standing Urinals

The Urinals shall be flat pattern lipped front basin of required dimension of White 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 RV.C. Waste Pipe, which shall discharge into a channel of floor trap. The lip of Urinals shall be kept at 525mm from floor level, while fixing the Urinal on wall.

Where no. of Urinals are fixed in a line, the distance between the centres to centre of each Urinal shall be kept 750mm. and each Urinal should be separated from one to other by a partition plate. The centre to centre of partition plates shall be kept 750mm apart. The partition plate shall be of one-piece 25mm thick marble plates, cut to size and front corners rounded. The partition plates shall be embedded in wall with cement concrete and finished smooth. The bottom of the partition plate should be kept 350mm above floor level and top should be kept at 1250mm above floor level. The plates should project 600mm from wall surface. The width of the plates to be embedded inside the wall should not be less than 100mm. The thickness of the plates shall be minimum 25mm. For flushing the Urinals each Urinals shall be connected with one 20mm dia G.I. Pipe (Medium Class), One of this 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 the 25mm dia size Water Pipe Line fixed on the wall horizontal above the Urinals. In each 20mm dia flush pipe one 20mm dia cum-metal Gate valve, the water will flow to thermal 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 of Trap. One end of this Waste pipe shall be made a cup size to fit into the projected waste and tightened with screws.

7. Squatting Urinal Plates

The Urinal Plates shall be of White Glazed Vitreous China with integral flushing rim of size 450 X 350mm of approved make and brand as specified. There shall be white vitreous channel with stop and outlet pieces in 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 up to 200mm from floor level just at the centre of each plate, in which one 20mm dia Gate Valves is fixed at 350mm above floor level. At 1200mm height, the 20mm dia flush pipe shall be divided into two branches shall be taken downward and connected to the inlets of the urinals plate 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 plates shall be kept 750mm.

The partition plates shall be of one-piece marble plate, 25mm thick, cut to sizes and front corners rounded. The plates are to be embedded in wall with cement concrete and finished smooth. The bottom of the partition plates shall be kept flushed to urinal top level and the top level of partition plate shall be kept at 1200mm from the urinal plate top and the projection from the wall shall be 600mm. The width of the plate to be embedded inside the wall should not be less than 100mm.

B. Soil and Waste Pipes and fittings

1. H.C.I. Pipe Fittings

The Cast iron Soil, Waste and design pipes (spigot & socket joints) shall be of make and brand as specified (under specification of materials), confirming to I.S.S. 3989-1970 and ISI marked with approved clamps are to be used. The pipes and fittings shall be free from cracks, laps, pinholes, and other imperfection and carefully cited. The access door fittings shall be designed and made so as to avoid dead space in which filth may accumulate and door shall be provided with 3mm thick rubber insertion packing when closed and bolted.

WEIGHT OF HCI PIPES

2. Dia of Pipe in MM	Thickness in mm	Length of pipe & width piece	
		1.8 Mtr. D/s	1.8 Mtr.
50 mm	5 mm	16.00 Kg.	15.00 Kg.
75 mm	5 mm	13.83 Kg.	16.52 Kg.
100 mm	8 mm	24.00 Kg.	22.00 Kg.
150 mm	8 mm	26.70 Kg.	31.82 Kg.

Tolerance 10%

3. The jointing should be done with pig lead confirming to I.S. 782-1966 - grade 99.94.

The spigot and of Pipes and Fittings should enter into the socket end. The annular

space shall be packed with spun yarn gasket, compacted so as to leave a depth for receiving required quantity of lead in a continuous pouring from ladder. After pouring lead in the joints in full, caulking is to be done three times round with the caulking chisels, so that the joints may be sealed with lead. The depth of lead in a point should be 35mm and the rest depth of the joint should be packed with spun yarn Gasket.

4. Requirement of lead and Gasket cement for jointing H.C.I. Pipes (Each Joint)

Dia of pipe in mm	Lead in Kg.	Gasket in Kg. (Same for lead & cement joint)	Cement Kg.
100	1.2 Kg.	0.13 Kg.	0.12 Kg.
50	0.36 Kg.	0.06 Kg.	0.06 Kg.

5. The inside of the pipes and fittings shall be well coated with special tar or bitumen solution of approved quality. Where the pipe and fittings are laid below the ground, the outer surface of the pipes and fittings shall also to be painted with two coats of black anticorrosive paint of approved quality. On completion of the work, the exposed pipes and fittings are to be painted with two coats of synthetic enamel paint of approved colour & quality over a coat of red oxide primer. The cost of paint should include in the rates.
6. Soil pipes for ventilation Is to be connected to the sewer at its floor and without a trap and be carried to such a height, at least above roof level, to prevent damage to health by commission of foul air, The pipe shall terminate as open and protected by a cowl.
7. The waste water pipe shall be connected with the nearest yard gully or a surface drain.
8. The traps should be of hard cast iron and should have a water seal at least 50mm deep.
9. All the soil and waste pipes and fittings, after laid and fixed shall be smoke tested, to the entire, satisfaction of the Engineer-in-charge. The Cost of testing is to be included in the offer. For smoke-test the materials usually burat greases cotton waste, which gives out a clear pungent smoke, which is easily detected by sight and smell. Smoke shall be pumped to the drains from the lower end from a smoke machine, which consists of lower, and burner.

a) P.V.C (S.W.R.) & P.V.C. (Rigid) Pipes & Fittings

The P.V.C. (S.W.R.) and P.V.C. (Rigid), soil Waste & Vant Pipes (Spigot & Socket, & couples joints), shall be of make & brand as specified (Under Specification of materials) confirming to I.S.S., B.S.S. & DIN are tube used.

The main specification of P.V.C. Soil & Waste pipes and fittings are as below.

- | | | |
|--|---|---|
| a) Materials | : | Un-plasticized Poly Vinyl-Chloride (UPVC) |
| b) Color | : | Grey |
| c) Dimensions | | |
| i. Diameter | : | Fittings - 75mm/110mm/63mm & 63mm |
| Pipes | : | 75mm, 110mm, on lengths of 3.or 6 mtr |
| d) Wall thickness | : | Fittings - Minimum 3.2mm at any port |
| Pipes | : | As per application |
| For Rainwater | : | 75mm-1.8. to 2.2.mm, 110mm-2.5. to 3mm |
| Waste & Soil | : | 75mm -1.8 to 2.2mm, 110mm -2.5 to 3 mm,
63mm |
| Underground drainage
with light / NIL –
Traffics | : | 110mm - 2.5 to 3mm |
| Light / NIL in Heavy Traffic | : | 110mm 3.7 to 4.3mm |
| e) Standard Confirming to Attributes | | Confirms to Standard No. |
| i. Fittings & Wall | : | DIN 19534 I.S.7834 - PVC (Rigid) |
| B.S.4514, DIN | | |
| 10531 thickness | | |
| ii. Pipe Wall thickness | : | IS 4905 |
| iii. Rubber ring | : | IS 5382 |

- iv. Fitting dimensions : DIN 19531 - P.V.C., DIN 19534 – S.W.R. IS - 7834 V.C. (Rigid)
- v. Pipe Dimensions : IS 4985

b. Laying instructions & Jointing Procedure

1. Jointing of P.V.C. (S.W.R.) Pipes & Fittings

Clean the outside of the pipes spigot and the inside of the sealing groove of the fitting. Apply the rubber lubricant, to the spigot end, sealing ring and pass the spigot end into the socket, containing sealing ring, until fully homed. Mark and position of the Socket edge with pencil on the pipe, then withdraw the pipe from the socket by approx. 10mm towards thermal expansion gap.

2. Fixing of the Pipes and fittings on wall surface

P.V.C. pipes both (S.W.R.) & (Rigid), fixed on wall surface, are to be supported by P.V.C. pipe clips, specially made for these pipes, with horizontal runs, the pipe clips should be spaced at intervals of more than 10 times the outside diameter of the pipes. In vertical lines the clips are to be spaced at intervals of one meter to a maximum of two metres according to pipe diameter.

3. Jointing of P.V.C. (Right) Pipe Fittings

Clean the Outside of the pipes and inside of the socket of a fitting of the inside of the couplers (where 2 plain ended pipes are jointed) of. Apply solvent cement solution, evenly and smoothly on the outer surface of the pipe end and inside surface of either the coupler of the socket and pass the pipe end into the socket of the fittings. Up to full depth of socket. In case of jointing 2 plain-ended pipes 1st. push the coupler up to half depth on the end of one pipe and the outer half of the coupler should be pushed to the end of other pipe and thus, both pipes are jointed.

4. Fixing of P.V.C. pipes and Fittings through holes of Walls or Chajja of roofs etc.

The Wall/concrete slots should allow for a stress free installation, Pipes and fittings to be inserted into the slots, without a cement base, have to be applied first with a thin coat of P.V.C. Solvent cement, followed by sprinkling of dry sand (medium size). Allow it to dry. This process gives a sound base for cement concrete fixation, around the pipes/fittings while mending the damages.

5. Anti-syphonage Pipes

All the anti syphonage pipes and fittings to be used are of 63mm. If these are not available under the items of P.V.C. (S.W.R.) materials, 63mm pipes and fittings, manufactured under P.V.C.(right) materials can be used, since the raw materials for both is same.

- 6.** All traps should have a minimum water seal of 50mm as per I.S. 5329 and IS 2556 (Part XIII). Where anti syphonage connection is required, the traps to be supplied and used should have a 50mm anti syphonage gend horn on the outlet side. All the Traps used with the closets, should be of the size 125mm X 110mm i.e. Inlet (Socket end) of 125mm & outlet (spirit end) of 110mm only.

7. Installation of Water Closet

Determine the correct Location of the P/S Trap & set on a firm base, relative to the floor finish by pouring concrete on a slab. Bedding can be carried out by pouring concrete around the trap, ensuring that the traps outlet is left clear of concrete. Place the W.C. Connector ring to the socketed end of 125/110mm R/S trap. Apply rubber lubricant on W.C. Connector ring as well as outer side of water closet (connection point) and now complete the joint by pushing the W.C. to home of 125mm socket of the trap.

8. P.V.C. (Rigid) Pipes and Fittings

63mm (O.D.) P.V.C. Pipes to be used for these work either in anti syphonage system or elsewhere, should be of “Quick Fit” Pipes Class 2 (4kg. F/Cm²), Quick Fit, Pipes have one end socketted. The P.V.C. (Rigid) fittings, such as 63mm elbow, 63mm equal Tees 110mm x 63mm reducer etc. used in the work, should be of injection-moulded fittings.

- 9.** One -jointing rubber ring will be available, with each P.V.C. (S.W.R.) pipe and fitting and hence, the cost of therein will not be added in the joint.

10. Measurement

All pipes shall be measured not/length as laid or fixed and shall be measured over all fittings such as bends, junctions, traps etc. The length shall be taken along the counter line of the pipes and fittings. Fittings will be counted extra over.

- 11.** Before fixing and painting, the pipe shall be tested hydraulically to pressure Q.4Kg/Cm² for pipes under I.S.-1729/1964 and at a pressure 0.7 Kg/Cm² for pipes under I.S. 3989-1970 without showing any sign of leakage, sweating of or her defect of any kind. The pressure should be applied internally and shall be maintained for not less than 15 seconds.

c) **Water Supply Pipes and Fittings**

1. **Materials.**

All galvanized Iron Pipes are to be of mild steel continuous welded, screwed tubes, medium quality conforming to I.S.S. and bearing ISI Marks manufactured by reputed Firms and approved brands as specified. The pipes shall conform to LS.1239 (Part-I) -1975. All G.I. Fittings shall be of 'R' Brand manufactured by M/s. R.M. Engineering Ltd., Ahmadabad and 'C' brand manufactured by Present Engineering works or equivalent best quality.

2. **Laying of Pipes**

The lay out of the mains and service pipe set 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 Engineer In-charge, before taking up the work.

3. 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 for the pipes shall be given as below :

Dia of Pipe	Width of Trench	Depth of trench
15 mm to 50 mm	300 mm	600 mm
65 mm to 100 mm	450 mm	750 mm

The pipes shall be laid on a layer of 75mm thick sand and filled up with sand up to 75mm above pipes and the remaining portion of the trench shall then be filled up with proper ramming as described in "GSTIN 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 pipe of M.S./G.I., as approved by the Engineer-in-charge. The rate should include such a situation.

4. 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	2.50m	2.50m	2.50m	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 & roof slabs etc. the holes shall be made by filling with chisels or jumper and not by dismantling the brickwork or concrete. After fixing, the holes shall be made good with cement concrete 1:2:4 and properly finished with C. 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 3 mtrs. for long horizontal lines and inside the GSTIN / Kitchen etc.

5. 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.

6. **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.

7. **Measurement**

The length shall be measured in running meter. Correct to centimetre 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, Cooks, Valves, PVC connection pipes etc.

8. Ball Valve

The ball valve shall be high or low pressure class as stipulated in the Tender Schedule and shall confirm 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 gun-metal and the float for low pressure polyethylene and for high pressure in copper. Each and every ball valve while in closed position shall withstand and internally applied hydraulic pressure of 20 Kg/Cm^2 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/Cm^2 and a low pressure ball valve against a test pressure of 5.3 Kg/Cm^2 .

Polyethylene floats shall be watertight and non-absorbent and shall not contaminate water and with do 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.

9. Ferrule

The ferrules for connection with C.I. main shall generally confirm to I.S. 2692-1964 and shall be of nominal bore as specified. The ferrule shall be fitted with 3 screw and 1 plug or valve capable of complete cutting off the supply to the connected pipe as and when required. For fixing the ferrule, the C.I. main shall be drilled and tapped during non-supply hour at 45 to the connected Pipe as that when required. The ferrule must be so fitted, that no portion of the sunk shall be left projecting within the main on which it is fitted. After the ferrule is connected, one C.I. bell mouth cover or with bricks (as specified) shall be kept over the ferrule to cover the ferrule to protect it and the cost thereof is to be included in the item, even if there is no mention.

10. Non-return Valve (Check Valves)

The non-return valve shall be of Brass or Gunmetal and shall be of horizontal or vertical flow type and of the size as specified and confirm to I.S. 7810-1959 and I.S. 778-1957. The approximate weights of the valves are given below.

Dia in mm	Horizontal type (in Kg)	Vertical type (in Kg)
15	0.30	0.25
20	0.55	0.25
25	0.90	0.75
32	1.25	0.90
40	1.70	1.20
50	2.90	1.45
65	5.25	2.15
80	7.70	4.10
	± Tolerance 5%	

11. Foot Valve

Foot valve is generally placed at the lower end of the suction pipe of the centrifugal pump to prevent the suction pipe from emptying. On vertical non-return valve may also be fixed in place of foot- valve. The foot valve shall confirm to I.S.038-1967.

12. Water meters (Domestic types)

Water meter up to 50mm nominal size shall confirm to I.S.-779-1968. The meter body shall be of bronze/ Gun-metal and marked to read in liters complete with registration box and lid. The water meters shall be provided with Strainers. Strainers shall be of material, which is not susceptible to electrolyte, clean and shall be fitted on the inlet side of water meter. It shall be possible to remove and clean the strainer and not permit disturbing the registration box. The offer should include the same. The water meters shall bear ISI Mark.

13. Bibcock & Stopcock

These shall conform to I.S.781-1967 and bear ISI Mark. The bibcock 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 cock shall open in anti-clockwise direction. The stopcocks should be of C.P open type/concealed type/angle valves type as specified in tender schedule. Bibcock should be also C.P Brass bibcock.

14. 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 confirming to I.S, 780-1960, opening Full way and of the size as specified.

Dia in mm	Flanged End Valves in Kg	Screwed End Valve in Kg
15	1.021	0.56
20	1.503	0.68
25	2.498	1.07
32	5.232	1.55
40	6.082	2.26
50	6.691	3.23
65	10.149	6.84
80	13.281	8.84

15. Gun Metal Full way Valve

This shall be of the Gun-Metal fitted with wheel and shall be of Gate-Valve type opening full way. This shall confirm to I.S, 778-1971. Class I. The Valves should bear ISI Mark.

TECHNICAL SPECIFICATION FOR STONEWARE PIPE ETC**1. Stoneware Pipes (Materials)**

The S.W. pipes & fitting should be of Grade 'A' confirming to I.S 651/1965. The pipes shall be sound, free from visible defects such as fire crack or hair crack and flow or blister. The pipes shall give a sharp clear line when struck with a light hammer and should be perfectly salt glazed.

Internal dia of pipe in mm.	Thickness of the Barrel in mm.	Weight of each pipe in Kg.
100	12	14
150	16	23
200	17	33
230	19	44
250	20	52
300	25	79
350	30	100
400	35	125
450	38	147

The length of pipes is 600 mm exclusive of the internal depth of socket.

2. GSTIN of Trench for laying Sewer Pipes

The trenches for the pipes shall be GSTIN to the lines & level as directed. The bed of the trench shall have to be evenly dressed throughout from one change of grade to the next. The gradient is to stout by means of sight rails and boning rods and required depth be GSTIN at any point. The depth of the trench shall not less than one meter, measured from top of the pipe to the surface of the ground under roads and not less than 0.75m elsewhere. The width of the trench shall be the nominal diameter of the pipe plus 350m. The bed of the trench if in soft or made up earth, shall be well watered and rammed before laying the pipes and the depressions if any shall be properly filled with sand and consolidated in 200mm layers. Depending on soil condition, piling may even be necessary if so desired by the Engineer In- charge. If rock is met with, it shall be removed 150 mm below the level of the pipe and the trench will be refilled with sand and consolidated.

The GSTIN materials shall not be placed within One Mtr. or half of the depth of the trench whichever is greater from the edge of the trench. The trench shall be kept free from water. Shoring and shuttering shall be provided wherever required. GSTIN below water level shall be done after dewatering the trenches.

After the GSTIN of the trench is completed, foundation of cement concrete 1.4.8 in hard granite metal (size 40mm) shall be laid with proper level all along under the length of the pipe with launching on all around concrete as per drawing.

3. Laying, Jointing, haunching of the Pipes and fittings.

Drain Pipes (S.W. pipe & other pipes used for drain and Sewer) shall be laid in straight lines and to the even gradients as shown in the layout drawings. The socket and of the pipes shall face stream. Adequate care shall be exercised in setting out and determining the level of the pipes and the contractor shall provide suitable instruments, templates, sight rails, boning rods and other equipments necessary for the purpose. In the case of pipes with joints to be made with loose collars, the collars shall be slipped on before the next pipe is laid. In those joints, a tight ring of twisted tarred jute soaked in cement mortar filling to ensure proper alignment and prevent. Cement entering the pipes, Cement compound joints is to be finished with proportion 1.1 with 45 beveling. The joints are to be kept wet with wet bag until the same are properly set with. The cement mortar joints shall be cured at least for 7 (Seven) days.

In the case of S.W. Pipe joints (socket & spigot), they should be caulked first with tarred jute (Spun) of required diameter, almost quarter depth of the socket, after which cement mortar 1:1 is pushed in with wooden chisel and finishing beveled at outside at 45 degree. Instead of jute of hump rubber gasket of proper size may also be used. The whole joint must be cured for not less than three days. In case of pipes less than 250mm dia, joints should be made at ground level with three pipes at a time and for larger ones two pipes at a time and after curing they should be soiled in foundation with the help of the ropes. All pipes should be properly launched with cement concrete 1.3.6 with washed gravel where the pipes are crossing the drain or all round concrete 1.3.6 with washed gravel is to be done to 150 mm thick over the barrel of the pipe. The whole of the drain work shall be tested when laid, and at the completion of the contract, to the satisfaction of the Engineer-in-charge and shall be retested if necessary until found satisfactory. The test shall be made by means of water under pressure at the highest point of the Section under test and providing an air pipe at the lower end of the line. Maximum head of 5 (five) feet (1.5m) must be maintained.

4. GSTIN and refilling.

GSTIN for drain and pipe trenches shall be straight and to correct depth and gradient. The trench bottom shall be of required width as per specification to allow working space for pipe jointing.

GSTIN materials shall be dumped away from the site as directed by Engineer-in-charge. Suitable precautions are to be taken to prevent in flow of water into the GSTIN area, during construction.

The contractor at his own expense shall pump out or otherwise remove any or all water which during the continuance of contract may be found in the GSTIN trenches to keep the trench clear of water during the work under progress. The pipeline shall not be refilled and covered, until the line therein has been passed and tested.

5. Buried Services

All pipes, cable mains and other services exposed by the GSTIN shall be effectively supported by timbering or other means for which no extra payment will be allowed. The contractor shall be responsible for any damage occurring to buried services and make good the same at his own cost to the satisfaction of the Engineer-in-charge.

6. Trench condition

Where a trench is GSTIN and refilled after laying the pipe, settlement of the earth in the refilled trench take place. The filling above the top of pipe, settles relatively, more than the sides of the trench, thereby developing frictional resistance. The contractor is required to take special precaution against this, while refilling the trenches. Procedure for backfilling as stipulated earlier should be strictly followed.

7. Inspection Chambers/Manholes

At every change of alignment, gradient or diameter of a drain there shall be a manhole or Inspection Chamber. The maximum distance between manhole chamber shall be 30 metres for the line laid straight.

All manhole and inspection chamber shall have internal dimension as shown in drawing and B.O.Q. The depth of invert shall be fixed to the gradient. The foundation for Manhole shall be 175mm thick & with cement concrete 1.3.6 in hard stone metal / granite metal of 40mm size. The concrete shall project 150mm beyond the external faces of the brickwork.

The brick masonry shall be done in cement mortar in the proportion of 1:4 and thickness of the brick wall should be 250mm thick up to 1200mm depth from Ground Level and beyond that the wall thickness shall be maintained 375mm. The inside surface of the walls of the chamber, shall be finished with cement plaster 1.3 and outside with cement pointing 1.3. In addition to this, the inside surface should also be provided with cement punning.

On the top of base concrete channeling on C.C. 1.2.4 with granite chips is to be done keeping the diameter equal to the dia of drain pipe and depth equal to half of the dia of pipe. The channel, 'should be done longitudinally at the centre, connecting both the ends of the pipe. The channel is to be hunched up with concrete 1.2.4 with hard granite chips of size

12mm sloping upwards from the edge of channel to meet the side of chamber at gradient of 1:6. The channel and benching are to be finished smooth and cement mortar 1.3 and punning unless it is unavoidable. The branch should deliver sewerage in the Manhole in the direction of main flow and the junction must be made with care so that the flow in the main is not impeded. Channels for drains coming from the side of the Manhole Chamber, shall be curved to meet the main drainage channels.

The Manhole and Inspection Chambers shall be covered with R.C.C. cover slab of thickness 100mm to 150mm according to the requirement at site. One C.I. Manhole cover of diameter and weight as stipulated in the tender schedule shall be fixed, on the cover slab. Unless otherwise mentioned the C.I. Cover and Frames and shall conform to I.S. 1726/1960. Heavy duty covers etc., under heavy vehicular traffic condition and capable of bearing wheel loads up to 11.25 tons, are to be used and medium duty under light type wheel traffic loads and light duty for domestic premises are to be used. Covers and Frames shall be clearly cast, double water seal type and they shall be free from all and sand holes. The cover shall be gas tight and water tight with proper water-seal. The C.I. Cover and frame shall be coated with two coats of black bituminous paint. The frame of Manhole cover shall be fixed on the slab while the slab is cast. R.C.C.M.H. covers of 50cm dia and 100mm thickness shall be fitted in line of C.I.M.H. cover if stipulated in the bill of quantity of the tender schedule.

8. Gully Trap Chamber

The size of chamber for 100mm HCI yard gully shall be of 250mm X 250mm (Inside). Foundation with 100mm thick cement concrete 1.3.6 with hard granite metal of size 40mm from outer surface of wall and Brick work in cement mortar 1.4, 125mm thick, depth up to 600mm maximum. The finishing of masonry wall both inside and outside should be done in cement mortar 1.4 cement punning should be provided on the inner surface the trap should be burried in cement concrete 1.2.4 in H.G. chips up to the mouth and one hinged C.I. Grating of size 300mm x 300mm are to be fixed on the top of mouth of Gully trap to arrest rubbishes shall be provided. The foundation, should project 75mm from outer.

9. Kota/ Marble Stone flooring

The Kota/Marble stones shall be of thickness specified but not less than 20mm and of uniform with edges absolutely square & straight. They shall be laid in Cement Mortar (1.4) over masonry or concrete base. The sides of the stones shall be arranged to butt against each other truly so as to came the joints practically invisible and certainly not more than 0.8mm in width anywhere. The joints shall not be filled with mortar but may afterwards be grouted with neat white cement mixed with matching colour pigment. When the floor has completely set, it, should be polished with pumice stone and finally with pads of felt.

10. Glazed tile dado

The glazed porcelain tiles shall be of approved size and thickness 5mm to 6mm with edges absolutely straight & surface accurately plain. They shall be fixed in 6mm. thick cement mortar 1.3 using cement slurry over pre-cement plastered base. The sides of the tiles shall be arranged to but against each other truly so as to make the joints practically invisible. However, the joints may be granted with white cement mixed with colouring materials to match the tiles and neatly cleaned leaving no trace of excess grouting materials. The tiled surface and edges should be perfectly vertical and straight. The corner points must be normally right angled unless the site condition demands otherwise.

**ADDITIONAL APPENDIX TO BILL OF QUANTITY
(For P.H. Items of Work)**

1. The quantities of items mentioned in the tender schedule may increase or decrease during execution of works but the contractor will complete the work as per his tendered rates in accordance with the instruction of Engineer in charge of G.P.H. wing.
2. **Specification:** The standard PHD and PWD specification will be followed for execution of work. During the course of execution of work, the instructions of the Engineer in charge shall be final and binding.
3. The Sales Tax element should not be added to the analysis of rates and the previous practice should be followed as per the Works Department letter No.IIT.22-89-18170 dt.18.7.1989.
4. There should be no clause either in the tender or in agreement for payment of any additional claim on account of Sales Tax on completed works which will be deemed to be recovered by existing omnibus stipulation as per the works Department letter No.TIT 22/89-18170 dt.18.7.89.
5. It is the responsibility of the Contractor to arrange watch and ward to the installations until testing commissioning and handing over for which no extra payment towards watch and ward will be paid,
6. The contractor shall maintain a separate site order book for P.H. portion of work.
7. The P.H. portion of work shall be open for inspection by the authorities of P.H. Circle (R&B) Odisha, Bhubaneswar and the higher authorities and instructions imparted during the course of Inspection should be binding on the contractor.
8. Materials not covered by any of the above categories of items in the bill of quantity have to be approved by the competent authorities before utilizing the 'same in works. In such event, the payment of such item will be made as per actual on due approval by the competent authority.
9. All materials required for the work shall be supplied by the contractor as per standard specifications appended with due approval by the Engineer in charge of G.P.H. Wing.
10. In case the materials as per make specified are not available, the materials of equivalent make and as per I.S. Specifications or of best quality when not covered by I.S. Specifications can be utilized on prior approval of concerned S.E./ E.E., GPHD (R&B) Circle/Division or the officers duly authorized. It is binding on the part of the contractor to use such items of materials which are available in the Departmental store and in such case the deduction from the bills will be made at stock issue rates.

Bidder(s) is/are required to submit the information in the following Schedules

SCHEDULE – A

CERTIFICATE OF NO RELATIONSHIP

I/We hereby certify that I/We* am/are* related / not related (*) to any officer of the rank of Assistant Engineer & above and any officer of the rank of Assistant / Under Secretary and above of the F& A.R.D. 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

Signature of the Bidder

Date:-

SCHEDULE – B

**WORKING EXPERIENCE
LIST OF SIMILAR NATURE OF PROJECTS IN PROGRESS
(LAST FIVE FINANCIAL YEAR FROM 2020-21 TO 2024-25)**

Name of Employer	Name of location and name of work	Contract price in Indian Rupees/ Agreement No.	Major Items of works	Date of starting the work as per Agreement	Stipulated date of completion of the work as per Agreement	Revised target date of completion of the work, if any	Reasons for slow progress, if any, with the updated billing amount
1	2	3	4	5	6	7	8

Note: The above information is to be certified by the Engineer in Charge / Employer not below the rank of Executive Engineer.

Signature of the Bidder
Date.....

SCHEDULE – C

**WORK EXPERIENCE
LIST OF SIMILAR NATURE OF PROJECTS EXECUTED
(LAST FIVE FINANCIAL YEAR FROM 2020-21 TO 2024-25)**

Name of Employer	Name of location and name of work	Contract price in Indian Rupees/ Agreement no.	Major Items of works	Date of starting the work as per Agreement	Stipulated date of completion of the work as per Agreement	Revised target date of completion of the work, if any	Reasons for slow progress, if any, with the updated billing amount
1	2	3	4	5	6	7	8

Note: The above information is to be certified by the Engineer in Charge / Employer not below the rank of Executive Engineer.

Signature of the Bidder
Date.

**INFORMATION REGARDING CURRENT LITIGATION, DEBARRING EXPELLING
OF BIDDER OR ABANDONMENT OF WORK BY THE BIDDER**

1. a) Is the bidder currently involved litigation relating to the works. Yes / No in any
- b) If yes: give details:
2. Has the bidder 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 bidder 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 summarily be rejected.

Signature of the Bidder

Date.

AFFIDAVIT

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 authorized (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 Bidder)

Name of Firm

Date:

RELATIONSHIP DECLARATION

To,

The Tender Inviting Officer,

Subject: (Name of the Work)

Reference: (Bid reference number) Sir,

Pursuant to clause 2 of the ITB, it is to inform that I have relative(s) employed as an Officer in the rank of an Assistant Engineer/Under Secretary under the _____ Department. His (Their) details are as follows.

Relationship:

Name:

Designation

Office

Address

Pursuant to clause 2 of the ITB, I am to submit herewith the names of persons who are working under my firm having near relatives to any gazetted officer in the rank of an Assistant Engineer/Under Secretary in the Department.

Sl No	Name of my employee and his designation in the firm	Presently working at	Details of his relatives working in the Department
			Relationship Name: Designation Office Address
			Relationship Name: Designation Office Address

I am also duty bound to inform the relationship of any subsequent employment with any gazetted officer in the rank of an Assistant Engineer/Under Secretary in the _____ Department. I am aware that any breach of this condition would render my firm liable for penal action for suppression of facts.

Yours Sincerely

Signature of the Bidder.

Date:-

PRICE BID**BILL OF QUANTITY FOR THE WORK**

**RENOVATION, UP-GRADATION & EXPANSION OF OFFICE
BUILDING OF ADF (M) AT HUMARI (CHHATRAPUR) IN GANJAM
DISTRICT**

ESTIMATED COST PUT TO TENDER: ₹ 78,09,532.00

**OFFICE OF THE EXECUTIVE ENGINEER [CIVIL]
DIRECTORATE OF FISHERIES, ODISHA
CUTTACK**

BILL OF QUANTITY

BILL OF QUANTITY					
NAME OF THE WORK - RENOVATION, UPGRADATION & EXPANSION OF OFFICE BUILDING OF A.D.F (M) AT HUMARI (CHHATRAPUR) IN GANJAM DISTRICT					
Sl. No.	Description of Items	Unit	Quantity	Rate	Amount
1	Dismantling & removing of cement concrete including stacking the useful materials for re-use and removing the debris with 50 M lead including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
1.1	Ground Floor	Cum	0.60	₹ 746.60	₹ 447.96
1.2	First Floor	Cum	0.48	₹ 901.50	₹ 432.72
2	Dismantling 2.50 CM thick grading concrete from roof slab including cleaning the roof surface and lowering and removing the debris with 50 M lead including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
2.1	First Floor	Sqm	121.23	₹ 129.80	₹ 15,735.65
3	Removing old lime or cement plaster from walls including racking out joints 12 mm deep including stacling the useful materials for re-use and removing the debris with 50 M lead including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
3.1	Ground Floor	Sqm	145.93	₹ 57.70	₹ 8,420.16
3.2	First Floor	Sqm	293.46	₹ 60.60	₹ 17,783.67
4	Dismantling and removing doors windows and ventilators including removal of frames hinges and fastenings including stacking the useful materials for re-use and removing the debris with 50.00m including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
4.1	Ground Floor	Sqm	38.20	₹ 455.70	₹ 17,407.74
4.2	First Floor	Sqm	31.87	₹ 478.50	₹ 15,249.79
5	Brick work with 1st class flyash bricks of (25cm.x12cm.x8cm.)size having crushing strength not less than 75Kg/Sq. cm. With dimensional tolerance + 8 percent in cement mortar (1:6) in super structure including splaying cutting circular molding watering and adequate curing , using the bricks after immersing for 24hours in water , including cost and conveyance royalty and all taxes of all the materials required for the work and cost of all labour , labour CESS and T&P , scaffolding required to complete the work and finished in all respect in all heights as per the direction of the engineer-in-charge.				
5.1	Foundation & Plinth				
	Annex Building = 16.41 Cum	Cum	16.41	₹ 5,953.00	₹ 97,688.73
5.2	Ground Floor				
	Annex Building = 36.10 Cum	Cum	36.10	₹ 5,986.30	₹ 2,16,105.43
5.3	First Floor				
	Repair of Building = 3.84 Cum				
	Annex Building = 24.93 Cum	Cum	28.77	₹ 6,587.60	₹ 1,89,525.25

6	R.C.C. M-20 having minimum compressive strength in work test of 200 Kg/Cm ² in 15 cm. cubes at 28 days after mixing and tests conducted in accordance with IS 456 & IS 516 using 20mm and downgraded black hard granite crusher broken stone chips of approved quality from approved quarry , including hoisting lowering and laying ,well compaction with vibrator watering and curing for 21 days including rigid smooth centering and shuttering including false work and dismantling them after 21 days of casting and finishing the exposed surfaces smooth including cost conveyance royalty and all taxes of all materials including cost of all labour , labour CESS and T&P, running and hire charges of concrete mixer and generator required to complete the work but excluding cost of steel and binding wire and labour charges for cutting bending binding of steel etc. complete finished in all respect in all heights as per specification and direction of Engineer				
6.1	RCC Base of Column				
	Annex Building = 11.66 Cum	Cum	11.66	₹ 6,841.70	₹ 79,774.22
6.2	RCC Column				
6.2.1	Ground Floor				
	Annex Building = 3.42 Cum	Cum	3.42	₹ 18,332.80	₹ 62,698.17
6.2.2	First Floor				
	Repair of Building = 0.20 Cum				
	Annex Building = 2.92 Cum	Cum	3.12	₹ 20,825.40	₹ 64,975.24
6.3	RCC Plinth Beam				
	Annex Building = 4.62 Cum	Cum	4.62	₹ 7,707.30	₹ 35,607.72
6.4	RCC Lintel				
6.4.1	Ground Floor				
	Annex Building = 2.11 Cum	Cum	2.11	₹ 14,443.80	₹ 30,476.41
6.4.2	First Floor				
	Repair of Building = 0.24 Cum				
	Annex Building = 1.71 Cum	Cum	1.95	₹ 16,159.40	₹ 31,510.83
6.5	RCC Chajja				
6.5.1	Ground Floor				
	Repair of Building = 12.15 Cum				
	Annex Building = 6.48 Cum	Sqm	18.63	₹ 1,233.40	₹ 22,978.24
6.5.2	First Floor				
	Repair of Building = 12.15 Cum				
	Annex Building = 8.61 Cum	Sqm	20.76	₹ 1,406.60	₹ 29,201.01
6.6	RCC Roof Beam				
6.6.1	Ground Floor				
	Annex Building = 3.85 Cum	Cum	3.85	₹ 15,960.40	₹ 61,447.54
6.6.2	First Floor				
	Repair of Building = 0.33 Cum				
	Annex Building = 3.73 Cum	Cum	4.06	₹ 17,978.40	₹ 72,992.30
6.7	RCC Slab				
6.7.1	Ground Floor				
	Annex Building = 3.73 Cum	Cum	10.44	₹ 14,006.80	₹ 1,46,230.99
6.7.2	First Floor				
	Repair of Building = 1.60 Cum				
	Annex Building = 11.04 Cum	Cum	12.64	₹ 15,633.40	₹ 1,97,606.17
6.8	RCC Stairs				
	Ground Floor				
	Annex Building = 1.46 Cum	Cum	1.46	₹ 15,837.10	₹ 23,122.16

7	Providing MS reinforcement(SAIL) to RCC work including straightening the bent up or coiled rods, including cutting bending binding MS rod to the approved design including welding of jointing as required and binding MS rod with binding wire and tying the grills hoisting and placing in proper position as required including cost conveyance and all taxes of all the materials including MS rod and binding wire 18 to 20 gauge including cost of all labour , labour CESS and T&P etc. required to complete the work and finished in all respect in all heights as per specification and direction of Engineer-in-charge.				
7.1	Ground Floor				
	Repair of Building = 0.78 Qtl.				
	Annex Building = 41.77 Qtl.	Qtl.	42.55	₹ 10,101.40	₹ 4,29,814.57
7.2	First Floor				
	Repair of Building = 3.15 Qtl.				
	Annex Building = 21.94 Qtl.	Qtl.	25.09	₹ 10,134.20	₹ 2,54,267.07
8	Supplying, fitting, fixing of M.S grills of approved design and specification by using M.S. flat, angle, square bar conforming to I.S. No. 1977/95 in wooden choukath / brick wall with necessary no's of screws as may be required including cutting holes for clamps & fixing the grills with C.C. (1:2:4) by using 12mm size H.G. chips wherever necessary in all floors and all heights including watering, curing, scaffolding with cost, conveyance, taxes of all materials, fabrication, cost of all labour, labour CESS, T&P etc required for the work complete in all respect as per specification and direction of Engineer-in-charge.				
8.1	Ground Floor				
	Repair of Building = 11.2435 Qtl.				
	Annex Building = 3.69 Qtl.	Qtl.	14.93	₹ 11,066.00	₹ 1,65,254.11
8.2	First Floor				
	Repair of Building = 4.91 Qtl.				
	Annex Building = 4.59 Qtl.	Qtl.	9.50	₹ 11,105.10	₹ 1,05,498.45
9	Providing 16 mm thick cement plaster over brick work with cement mortar of mix (1:6) with screened and washed sharp sand for mortar and finished smooth to the rough surface of walls in all heights after racking out joints including watering and curing, rounding of corners, providing grooves where ever necessary with cost, conveyance, royalties and taxes of all materials with cost of all labour, labour cess, T&P, and scaffolding required for the work etc. complete in all respect as directed by the Engineer in charge.				
9.1	Ground Floor				
	Repair of Building = 72.96 Sqm				
	Annex Building = 106.74 Sqm	Sqm	179.70	₹ 288.10	₹ 51,771.57
9.2	First Floor				
	Repair of Building = 168.83 Sqm				
	Annex Building = 91.57 Sqm	Sqm	260.40	₹ 295.00	₹ 76,818.00

10	Providing 12 mm thick cement plaster over brick work with cement mortar of mix (1:6) with screened and washed sharp sand for mortar and finished smooth to the rough surface of walls in all heights after racking out joints including watering and curing, rounding of corners, providing grooves where ever necessary with cost, conveyance, royalties and taxes of all materials with cost of all labour, labour cess, T&P, and scaffolding required for the work etc. complete in all respect as directed by the Engineer in charge.				
10.1	Ground Floor				
	Repair of Building = 72.96 Sqm				
	Annex Building = 106.74 Sqm	Sqm	179.70	₹ 202.40	₹ 36,371.28
10.2	First Floor				
	Repair of Building = 168.83 Sqm				
	Annex Building = 91.57 Sqm	Sqm	260.40	₹ 210.00	₹ 54,684.00
11	Providing 6 mm thick cement plaster over RCC surface brick work with cement mortar of mix (1:4) with screened and washed sharp sand for mortar and finished smooth to the rough surface of walls in all heights after racking out joints including watering and curing, rounding of corners, providing grooves where ever necessary with cost, conveyance, royalties and taxes of all materials with cost of all labour, labour cess, T&P, and scaffolding required for the work etc. complete in all respect as directed by the Engineer in charge.				
11.1	Ground Floor				
	Repair of Building = 114.14 Sqm				
	Annex Building = 77.28 Sqm	Sqm	191.42	₹ 217.20	₹ 41,576.42
11.2	First Floor				
	Repair of Building = 114.14 Sqm				
	Annex Building = 79.46 Sqm	Sqm	193.60	₹ 222.50	₹ 43,076.00
12	Fixing vitrified tiles in floors treads or steps and landing on 20 mm thick bed of CM (1:4) [1 cement : 4 sand] jointed with neat cement slurry mixed with pigment to match the shade of tile including rubbing and polishing complete including cost of all and complete finished in all respect including cost, conveyance, royalty, taxes of all materials, labour, labour cess, T&P etc. required for the work etc. complete as per the direction of the Engineer-in-charge.				
12.1	Ground Floor				
	Annex Building = 61.80 Sqm	Sqm	61.80	₹ 1,195.70	₹ 73,894.26
12.2	First Floor				
	Repair of Building = 11.13 Sqm				
	Annex Building = 66.05 Sqm	Sqm	77.18	₹ 1,223.70	₹ 94,445.16
13	Fixing vitrified tiles in dado skirting and risers of steps on 12 mm thick C.P (1:3) including cost of all and complete finished jointed with neat cement slurry mixed with pigment to match the shade of tile including rubbing and polishing complete including cost of all and complete finished in all respect including cost, conveyance, royalty, taxes of all materials, labour, labour cess, T&P etc. required for the work etc. complete as per the direction of the Engineer-in-charge.				
13.1	Ground Floor				

	Annex Building = 10.36 Sqm	Sqm	10.36	₹ 1,337.00	₹ 13,851.32
13.2	First Floor				
	Repair of Building = 1.00 Sqm				
	Annex Building = 3.88 Sqm	Sqm	4.88	₹ 1,356.90	₹ 6,621.67
14	Finishing surface of walls with cement based wall putty [water based] of approved make and finished smooth and even surface to receive painting including cost of scaffolding staging charges with cost including cost of scaffolding, staging charges with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge				
14.1	Ground Floor				
	Repair of Building = 558.97 Sqm				
	Annex Building = 163.61 Sqm	Sqm	722.58	₹ 89.80	₹ 64,887.68
14.2	First Floor				
	Repair of Building = 587.97 Sqm				
	Annex Building = 62.00 Sqm	Sqm	649.97	₹ 91.70	₹ 59,602.24
15	Finishing plastered surfaces of walls with wall primer and making smooth to receive painting including cost of scaffolding, staging charges with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge.				
15.1	Ground Floor				
	Repair of Building = 587.97 Sqm				
	Annex Building = 290.76 Sqm	Sqm	849.73	₹ 37.60	₹ 31,949.84
15.2	First Floor				
	Repair of Building = 587.97 Sqm				
	Annex Building = 262.60 Sqm	Sqm	850.57	₹ 38.70	₹ 32,917.05
16	Finishing plastered surfaces of walls with Plastic Emulsion Paint of approved shade on new work two coats to give an even shade including cost of all and complete including cost of paint with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge.				
16.1	Ground Floor	Sqm	419.38	₹ 107.60	₹ 45,125.28
16.2	First Floor	Sqm	456.84	₹ 109.70	₹ 50,115.34
17	Finishing plastered surfaces of walls with weather coat paint of approved shade on new work two coats to give an even shade including cost of all and complete including cost of paint with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge.				
17.1	Ground Floor				
	Repair of Building = 139.59 Sqm				
	Annex Building = 124.58 Sqm	Sqm	264.17	₹ 88.70	₹ 23,431.87
17.2	First Floor				
	Repair of Building = 131.13 Sqm				
	Annex Building = 100.47 Sqm	Sqm	231.60	₹ 90.30	₹ 20,913.48

18	Painting two coats Synthetic enamel over coat of primer paint of approved shade and make in all floors and heights including cost of scaffolding, staging charges with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge.				
18.1	Ground Floor				
	Repair of Building = 15.06 Sqm				
	Annex Building = 6.83 Sqm	Sqm	21.89	₹ 266.30	₹ 5,829.30
18.2	First Floor				
	Repair of Building = 9.22 Sqm				
	Annex Building = 9.25 Sqm	Sqm	18.47	₹ 273.10	₹ 5,044.15
19	Providing 2.5 cm thick grading concrete (1:2:2) using 6mm size HGCB Chips on new work including hoisting, lowering, laying concrete, ramming, watering and curing etc. complete to including cost, conveyance, royalties, taxes of all materials and cost of all labours, labour cess, T&P etc required for the work etc. complete as directed by the Engineer-in-charge.				
19.1	Ground Floor				
	Annex Building = 88.33 Sqm	Sqm	88.33	₹ 439.00	₹ 38,776.87
19.2	First Floor				
	Repair of Building = 111.23 Sqm	Sqm	111.23	₹ 930.30	₹ 1,03,477.26
20	Providing fitting and fixing of false cealing with Aluminum anodised T section No. 3215 with 2'-0" center to center . L section No.1705 up to 15 microne on 4 walls to be fixed by means of steel screws and PVC plug and the Aluminum grid 2'-0" x 2'-0" suspended from cealing etc complete to including cost, conveyance, royalties, taxes of all materials and cost of all labours, labour cess, T&P etc required for the work etc. complete as directed by the Engineer-in-charge.				
20.1	Ground Floor	Sqm	41.96	₹ 1,616.80	₹ 67,840.92
20.2	First Floor	Sqm	53.09	₹ 1,635.60	₹ 86,834.00
21	Supplying , fitting and fixing of openable PVC doors with door frame of approved make of approved quality complete with frame , shutters, hinges, tower bolt, etc and all fittings & fixtures including cost of all materials,conveyance, taxes, labour, labour cess, T&P, stagging wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.	Sqm	6.30	₹ 2,472.86	₹ 15,579.01
22	Supplying, fitting, fixing of stainless steel of 304 grade in hand railing using 50mm dia. of 2mm thick circular pipe with balustrade of size 32mmX32mmX2mm @ 0.90m C/C and stainless squire pipe approved design and speciffication, buffing, polishing etc. with cost comveyance taxes of all materials, labour, T&P required for completion of the work in all respect as per direction of the Engineer-in-Charge.	Rmt	10.00	₹ 3,589.60	₹ 35,896.00

23	Supplying, RCC door/window frames of cross section (100x60x) mm of M-250 concrete using OPC 43 grade cement and steel reinforcement of 5.5 mm to 6.0 mm dia MS Rod with provision of hinges, locks, W.I clamps, etc required to complete the work finished in all respect including cost of all materials, conveyance, taxes, labour, labour cess, T&P, staging wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.				
23.1	Ground Floor	Rmt	81.00	₹ 273.20	₹ 22,129.20
23.2	First Floor	Rmt	81.30	₹ 273.20	₹ 22,211.16
24	Fitting & Fixing in proper position the RCC Door/Window frames of specified size & dimension with help of M-250 concrete using OPC 43 grade cement, including cost of all and complete finished in all respect including cost of all materials, conveyance, taxes, labour, labour cess, T&P, staging wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.				
24.1	Doors	Each	9.00	₹ 139.20	₹ 1,252.80
24.2	Windows	Each	19.00	₹ 155.50	₹ 2,954.50
25	Providing, fitting & fixing of 32mm thick FRP shutters moulded panels with all labour, iron fittings, and wooden hinged cleats etc. fitted and fixed complete in all respect, but excluding the cost of iron fittings including cost of all materials, conveyance, taxes, labour, labour cess, T&P, staging wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.				
25.1	Ground Floor	Sqm	28.65	₹ 3,191.20	₹ 91,427.88
25.2	First Floor	Sqm	28.72	₹ 3,275.90	₹ 94,083.84
26	Supply, fitting & fixing of pre-coated galvanised iron profile sheet semi gloss of 1000mm width & total coated thickness 0.5mm in roof drilling hole in wind ties including fixing of ridges valleys, wind ties, etc complete including cost of sheet & all fittings including cost of all materials, conveyance, taxes, labour, labour cess, T&P, staging wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.	Sqm	22.68	₹ 2,789.20	₹ 63,259.05
27	Earth work in excavation of foundation trenches in all kinds of soil including moorum stony earth and earth mixed with boulders except sheet rock and boulders requiring blasting including dressing of sides and levelling the bed up to 1.50M depth and depositing the excavated materials away from the work site with all leads and lifts by mechanical means etc. including cost of sheet & all fittings including cost of all materials, conveyance, taxes, labour, labour cess, T&P, staging wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.				
	Repair of Building = 16.17 Cum				
	Annex Building = 35.03 Cum	Cum	51.20	₹ 293.00	₹ 15,001.60

28	Collecting conveying Supplying and Filling in foundation and plinth with good quality sand including well watering and ramming including cost, conveyance, royalty and all taxes of all the materials and cost of all labour , labour CESS and T&P required to complete the work and finished in all respect as per the direction of the Engineer-in -charge.				
	Repair of Building = 7.72 Cum				
	Annex Building = 44.32 Cum	Cum	52.04	₹ 1,708.90	₹ 88,931.15
29	Providing and laying Plain Cement concrete of proportion (1:3:6) in foundation and plinth using 40mm.size clean black hard granite crusher broken metal and screened and washed sharp sand of approved quality from approved quarry including hoisting lowering and laying concrete in layers not exceeding 15cm. Thick to the required level, including ramming watering and curing etc. complete including cost, conveyance, royalty and all taxes of all the materials including cost of all labour , labour CESS and T&P required to complete the work and finished in all respect as per the direction of the Engineer-in –charge.				
	Repair of Building = 8.45 Cum				
	Annex Building = 13.78 Cum	Cum	22.23	₹ 1,708.90	₹ 37,988.84
30	P.C.C. M-20 having minimum compressive strength in work test of 200 Kg/Cm ² in 15 cm. cubes at 28 days after mixing and tests conducted in accordance with IS 456 & IS 516 using 20mm and downgraded black hard granite crusher broken stone chips of approved quality from approved quarry , including hoisting lowering and laying ,well compaction with vibrator watering and curing for 21 days including rigid smooth centering and shuttering including false work and dismantling them after 21 days of casting and finishing the exposed surfaces smooth including cost conveyance royalty and all taxes of all materials including cost of all labour , labour CESS and T&P, running and hire charges of concrete mixer and generator required to complete the work but excluding cost of steel and binding wire and labour charges for cutting bending binding of steel etc. complete finished in all respect in all heights as per specification and direction of Engineer-in-charge.				
		Cum	7.72	₹ 6,470.80	₹ 49,954.57
31	Providing Double under reamed pile foundation with R.C.C. work of M-20 using 12 mm size black hard granite crusher broken chips including cost of boring including cost of M.S. / Tor steel grade having minimum compressive strength in work test of 200 Kg / Cm ² in 15 cm. cubes at 28 days after mixing and tests conducted in accordance with IS 456 & IS 516 using 12 to 20 mm size black hard crusher broken granite stone chips of approved quality and from approved quarry including hoisting, lowering and laying concrete and including cost, conveyance, royalties and taxes of all materials, cost of all labour, labour cess, T&P required for the work etc. complete in all respect as per direction of Engineer-in-charge.				
		Each	24.00	₹ 16,183.70	₹ 3,88,408.80

32	Finishing plastered surfaces of walls with water proofing cement paint of approved shade on new work two coats to give an even shade including cost of all and complete including cost of paint with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge.				
32.1	Ground Floor				
	Annex Building = 240.89 Sqm	Sqm	240.89	₹ 46.10	₹ 11,105.02
32.2	First Floor				
	Annex Building = 141.46 Sqm	Sqm	141.46	₹ 47.70	₹ 6,747.64
33	Providing and laying Plain Cement concrete of proportion (1:2:4) in layers using 12 mm.size clean black hard granite crusher broken metal and screened and washed sharp sand of approved quality from approved quarry including hoisting lowering and laying concrete in layers not exceeding 15cm. Thick to the required level, including ramming watering and curing etc. complete including cost, conveyance, royalty and all taxes of all the materials including cost of all labour, labour CESS and T&P required to complete the work and finished in all respect as per the direction of the Engineer-in-charge.				
33.1	Ground Floor				
	Annex Building = 3.84 Cum	Cum	3.84	₹ 7,979.30	₹ 30,640.51
34	Fixing Ceramic tiles in floors treads or steps and landing on 20 mm thick bed of CM (1:4) [1 cement : 4 sand] jointed with neat cement slurry mixed with pigment to match the shade of tile including rubbing and polishing complete including cost of all and complete finished in all respect including cost, conveyance, royalty, taxes of all materials, labour, labour cess, T&P etc. required for the work etc. complete as per the direction of the Engineer-in-charge.				
	Annex Building = 15.00 Sqm	Sqm	15.00	₹ 1,009.50	₹ 15,142.50
35	Fixing Ceramic tiles in dado skirting and risers of steps on 12 mm thick C.P (1:3) including cost of all and complete finished jointed with neat cement slurry mixed with pigment to match the shade of tile including rubbing and polishing complete including cost of all and complete finished in all respect including cost, conveyance, royalty, taxes of all materials, labour, labour cess, T&P etc. required for the work etc. complete as per the direction of the Engineer-in-charge.				
	Annex Building = 25.54 Sqm	Sqm	25.54	₹ 999.50	₹ 25,527.23
36	Supplying, fitting and fixing of openable UPVC doors with door frame of approved make with 6 mm thick glass of approved quality complete with frame, shutters and all fittings & fixtures including cost of all materials, conveyance, taxes, labour, labour cess, T&P, staging wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.				
36.1	Ground Floor				
	Annex Building = 4.41 Sqm	Sqm	4.41	₹ 10,084.30	₹ 44,471.76
36.2	First Floor				
	Annex Building = 4.41 Sqm	Sqm	4.41	₹ 10,386.80	₹ 45,805.78

37	Supplying , fitting and fixing of two track UPVC sliding windows of approved make with 6 mm thick glass of approved quality complete with frame , shutters and all fittings & fixtures including cost of all materials,conveyance, taxes, labour, labour cess, T&P, staggng wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.				
37.1	Ground Floor				
	Annex Building = 8.50 Sqm	Sqm	8.50	₹ 5,762.20	₹ 48,978.70
37.2	First Floor				
	Annex Building = 10.41 Sqm	Sqm	10.41	₹ 5,935.00	₹ 61,783.35
38	Supplying, fitting, fixing of stainless steel of 304 grade in hand railing using 50mm dia. of 2mm thick circular pipe with balustrade of size 32mmX32mmX2mm @ 0.90m C/C and stainless square pipe approved design and specification, buffing, polishing etc. with cost conveyance taxes of all materials, labour, T&P required for completion of the work in all respect as per direction of the Engineer-in-Charge.				
	Annex Building = 7.00 Rmt.	Rmt.	7.00	₹ 3,589.60	₹ 25,127.20
39	Providing fitting and fixing of false ceiling with Aluminum anodised T section No. 3215 with 2'-0" center to center . L section No.1705 up to 15 microne on 4 walls to be fixed by means of steel screws and PVC plug and the Aluminum grid 2'-0" x 2'-0" suspended from ceiling etc. including cost of all and complete finished and the contractor to submitte 10 yrs guarrenty on the work including cost of all materials,conveyance, taxes, labour, labour cess, T&P, staggng wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.				
	Annex Building = 49.05 Sqm	Sqm	49.05	₹ 1,635.60	₹ 80,226.18
40	Providing, fitting & fixing of Wall paper/ Wall coverings (Paper Backed Vinyl) to the interior walls with application of extra strong all purpose wall peper adhesive with recommended/approved design and shade/texture including cost of all materials all labour all T&P, etc required including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 386.39 Sqft	Sqft	386.39	₹ 145.80	₹ 56,335.66
41	Supplying & fixing of roller blinds by fixing powder coated top channel, bottom channel with bottom end cap, control unit and good quality of 0.60 mm thick fabric of approved design and quality etc complete. including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 29.69 Sqm	Sqm	29.69	₹ 2,223.00	₹ 66,000.87
42	Supply & Procurement of Godrej make Executive Office Table for BFO and AFO (1500x750x728)mm size Model no. Enterprise-1500, including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 1.00 No.	Each	1.00	₹ 26,547.20	₹ 26,547.20

43	Supply & Procurement of Godrej make Office staff Table for JFTA & SFTA (1350x750x728)mm size Model no. Enterprise-1350, including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 8.00 No.	Each	8.00	₹ 22,856.00	₹ 1,82,848.00
44	Supplying & installation of conference table of (0.75 M width & 3.00 M Length) made up wood & metal including all cost, conveyance & transportation at site, labour, all taxes, etc complete. including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 1.00 No.	Each	1.00	₹ 68,943.00	₹ 68,943.00
45	Supply , fitting & fixing of High back Thriv plus mesh chair with head rest (75.0 x 110 - 130 x 75) cm size (Male - godrej SKU: 56101522SD02108) including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 4.00 No.	Each	4.00	₹ 27,550.00	₹ 1,10,200.00
46	Supply , fitting & fixing of Oxbo Aero Mesh Mid Back Chair of (76.3 89.5-100.5 x 76.3) cm size (make - Godrej, SKU AERO00001, Indian design no 255918,255915) including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 25.00 No.	Each	25.00	₹ 8,920.00	₹ 2,23,000.00
47	Supplying, fitting & fixing of Unwind training Room Chair with Desklet of (57.5 x 84.5 x 67.8) CM size (Make- Godrej, SKU: UNWIKIT06,)including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 20.00 No.	Each	20.00	₹ 6,947.00	₹ 1,38,940.00
48	Supplying, fitting & fixing of Supreme Ornate Black / Red Set of 1 Plastic Visitor Chair including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 15.00 No.	Each	15.00	₹ 4,200.00	₹ 63,000.00
49	Supply & procurement of Godrej make Almirah (1830H x 900W x 450D) mm Size Model no. KD Plain with 4 Shelves, including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 6.00 No.	Each	6.00	₹ 18,403.00	₹ 1,10,418.00
50	Supply & procurement of Godrej make Easy Rack, including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 4.00 No.	Each	4.00	₹ 10,944.00	₹ 43,776.00

51	Supplying, fitting & fixing of 55 " 4K Ultra HD LED Smart Screen Touch Television of reputed make (ISI marked) including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 1.00 No.	Each	1.00	₹ 1,30,499.00	₹ 1,30,499.00
52	Supplying, fitting & installation of one CPU of reputed make of 13th Generation Intel® Core™ i7 processor Windows 11 Home Single Language Kingston FURY 16 GB DDR5-4000 MHz XMP RGB Heatsink RAM (2 x 8 GB) 512 GB WD Black PCIe® NVMe™ TLC M.2 SSD 1 TB 7200 rpm SATA HDD NVIDIA® GeForce RTX™ 3070 Ti (8 GB GDDR6X dedicated) with wireless keypad & mouse including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 1.00 No.	Each	1.00	₹ 1,59,730.00	₹ 1,59,730.00
53	Supplying, fitting & fixing of Powered Amplifier of 5000 watt (ISI Marked) of reputed make (Make- Ahuja/Bose, etc) including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 1.00 No.	Each	1.00	₹ 74,000.00	₹ 74,000.00
54	Supplying, fitting & fixing of Audio Visual System of reputed make ISI marked including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 1.00 No.	Each	1.00	₹ 1,98,700.00	₹ 1,98,700.00
55	Supplying, fitting & fixing of Wireless discussion system for office of reputed make ISI marked including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.				
	Annex Building = 1.00 No.	Each	1.00	₹ 1,00,000.00	₹ 1,00,000.00
	Electrical Installation				
56	Recessed wiring to light point/Fan point/ Exhaust fan point/Call bell point with 1.5sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked with 20mm dia non-metallic PVC flexible conduit with 5A ,25 on MS box having front bakelite cover of suitable size, MS box with 1.5sq.mm FR PVC insulated single core multistrand copper conductor as earth wire including all accessories and connection including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge. (Make of wire-Finolex/L&T/Anchor/Havells/V-Guard/ Great White/HPL)				
56.1	Group-A	Point	12.00	₹ 676.00	₹ 8,112.00
56.2	Group-B	Point	9.00	₹ 918.00	₹ 8,262.00
56.3	Group-C	Point	23.00	₹ 1,222.00	₹ 28,106.00

57	Supplying and fixing of 6 Amp plug with 6 Amp switch on existing board (Make-Legrand/ Mylinc/ Schneider clipsal/ Hager insysta/ Anchor Dura/ or equivalent) Including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	5.00	₹ 337.00	₹ 1,685.00
58	Supplying and fixing of AC point with 20A plug and socket with provision for mounting of 20A DP MCB for flush mounting and surface mounting including DP MCB (Legarand or equivalent) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	2.00	₹ 3,053.00	₹ 6,106.00
59	Supplying, fitting & fixing of Different type of fan (Make-Crompton/Usha/Polycab/Orient/Havells/Khaitan,etc) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
59.1	48" Ceiling Fan	Each	7.00	₹ 2,942.00	₹ 20,594.00
59.2	Exhaust Fan 12"	Each	5.00	₹ 3,148.00	₹ 15,740.00
60	Supply and fixing of Remote call bell of ISI marked, on 6" X 4" conforming to IS - 2268/1994 and bell push of ISI marked, conforming to IS- 1293/1988(Make - Cona/Anchor/Great white) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge	Each	2.00	₹ 949.00	₹ 1,898.00
61	Supply and fixing of Different type LED lights (Make - Havells/Crompton/Wipro/Panasonic/Philips) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge. 20 Watt 4' LED tube lights	Each	10.00	₹ 726.00	₹ 7,260.00
62	Supply and fixing of LED round / square surface ceiling panel lights(Make - Havells/Crompton/Wipro/Panasonic/Philips) including all accessories and connection including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	9 Watt	Each	13.00	₹ 1,205.00	₹ 15,665.00
63	Supplying, fitting & fixing of fan regulator of electronics step type (Make- Cona/ Havells/Anchor,etc) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	5.00	₹ 699.00	₹ 3,495.00
64	Supplying and fixing of following different DD DB BOX (make-Havells/ C&S/ L&T) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	12 Way, SPN DD DB Box	Each	1.00	₹ 2,962.00	₹ 2,962.00

65	Supply and fixing of 6 Amp to 32A rating 240V/ 415V "C" series MCB suitable for lighting and other loads of the following poles in the existing MCB DB ISI marked complete with connection testing and commissioning etc, (make- havells/ C&S/ L&T) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
65.1	6 to 32 SP MCB	Each	12.00	₹ 276.00	₹ 3,312.00
65.2	6 to 32 DP MCB	Each	2.00	₹ 811.00	₹ 1,622.00
66	Recessed submain wiring alongwith earth wire with the following sizes of PVC insulated single core multistrand copper conductor ISI marked conforming to IS-694/1990 in 20mm dia non metallic heavy duty flexible conduit 1.6 mm in recessed PVC conduit as required including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge (Make of wire -Finolex/ L&T/ Anchor/ Havells/V-Guard/Great White/HPL)				
66.1	2 X 2.5 Sq.mm +1 X 1.5 Sqmm	Mtr	232.47	₹ 147.00	₹ 34,172.35
66.2	2 X 4.0 Sq.mm +1 X 1.5 Sqmm	Mtr	140.00	₹ 166.00	₹ 23,240.00
67	Supply and fixing of G.I Earthing with G.I earth pipe 3mtr Long 40mm dia ISI marked Including accessories and providing masonry with charcoal and salt as required. including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	2.00	₹ 2,532.00	₹ 5,064.00
68	Supply and Fixing of 4 pole MCCB Thermal Magnetic Protection in existing cubicle panel board including drilling holes in cubicle panel , making connections, etc as required.(Make Havells/C&S/L&T) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
68.1	125A 36 KA	Each	1.00	₹ 12,448.00	₹ 12,448.00
68.2	Cost of Copper Flat	Kg	2.80	₹ 990.00	₹ 2,772.00
68.3	Cost of Bush Bar (63-4 way)	Each	1.00	₹ 2,787.00	₹ 2,787.00
68.4	Cost of Indicator Lamp With Triangular Switch	Each	3.00	₹ 205.00	₹ 615.00
69	Supply of following PVC Aluminium armoured XLPE cables insulated ISI marked .(Make- Havells/ Polycab/ KEI / V-Guard/ Gloster) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	3.5 C X 35 Sqmm	Mtr	35.00	₹ 425.00	₹ 14,875.00
70	Supply & Fixing of Different Ac Machine (STAR RATED) (Carrier/ Voltas/ Bluestar/ Hitachi) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	1.5 Ton Split (3 star)	Each	3.00	₹ 67,108.00	₹ 2,01,324.00

71	S/F of Stabilizer (Make - V-Guard/ Microtec/Leotonics/ Alfa/ L. Power) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	130 to 280 volt 5KVA	Each	3.00	₹ 7,067.00	₹ 21,201.00
72	Copper cooling Piping With Insulation and Power Cable for 2 Ton/1.5 Ton Split AC including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Mtr	30.00	₹ 1,070.00	₹ 32,100.00
73	S/F of 25mm hard PVC Drain Pipe with required fixtures including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Mtr	30.00	₹ 500.00	₹ 15,000.00
74	S/F. of Powder coated Wall Stand for outdoor unit with Anchor Fastener (For 1.5 Ton/2 Ton) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	3.00	₹ 2,050.00	₹ 6,150.00
75	Supply and fixing of 45Watt LED street Lights (Make-Havells/ Cromption/ wipro/ panasonic/ Philips) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	8.00	₹ 6,029.00	₹ 48,232.00
76	Supplying,Providing,fitting & 220Ah,12V (2nos) Inverter battery of reputed make including cost,conveyance all taxes,labour,labour cess T&P,etc. required to complete the work as per specifications per direction of EIC. (Luminous-20500.00,Microtek-21179.00,V-Guard-24500.00) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	4.00	₹ 22,059.66	₹ 88,238.64
77	Supplying,Providing,fitting & fixing of 2500-3000V/24V Inverter of reputed make including cost,conveyance all taxes,labour,labour cess T&P,etc. required to complete the work as per specifications per direction of EIC. (Luminous-25990.00,Microtek-29800.00,V-Guard-26000.00) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	2.00	₹ 27,263.33	₹ 54,526.66
78	Cost of 16/ 18 SWG panel box (30"x12"x8")sq . Inch for single door made out of CR sheet of 16/18 SWG and boarder angle frame to provide above pannel with proper space, hinges, and other accessories, hinged door etc.including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	SqInch	2304.00	₹ 3.15	₹ 7,257.60

79	Supply & Fixing of 400 mm wall mounted fan (make - Havells - plantina/ Usha - Colossus, mist air/ crompton - window flow) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	7.00	₹ 3,681.00	₹ 25,767.00
	Water Supply and Sanitary Installation				
80	Supplying all materials,labour and T&P for cutting holes through existing brick work including making good to the same in cement mortar(1:4) for taking G.I. pipes and fittings /P.V.C. pipes and fittings all complete as per specification including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	250 mm thick wall	Each	8.00	₹ 63.30	₹ 506.40
81	Supplying all materials,labour and T&P for cutting holes in R.C.C. floors, roofs,or cornice including making good and leak proof to the damages for taking sand cast iron [SCI] / centrifugally cast[spun] iron pipes . pipes and fittings including mending good to the damages etc. all complete as per direction of the Engineer-in-charge. RCC Roof/Cornice	Each	8.00	₹ 209.70	₹ 1,677.60
82	Providing and fixing to wall or ceiling and floor rigid PVC pipes conforming to ASTM-D-1785/89[Sch-80] and pipe fittings of the following nominal bore with clamps including making good the wall , ceiling and floor all complete as per specification including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
82.1	20 mm Ø	Mtr	45.00	₹ 189.50	₹ 8,527.50
82.2	32 mm Ø	Mtr	45.00	₹ 321.60	₹ 14,472.00
82.3	50 mm Ø	Mtr	70.00	₹ 525.20	₹ 36,764.00
83	Supplying all materials,labour and T&P for cutting groves in pucca floor and walls for taking G.I. pipes and fittings /P.V.C. pipes and fittings and making good to the amages all complete as per specification including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Mtr	60.00	₹ 249.10	₹ 14,946.00
84	Laying in trenches unplastised PVC pipes conforming to IS:4985-2000 and specials of the following outside diameter for all classes including jointing with supply of approved solvent cement by non-heat application method including testing as per specification compete. including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.[Earth work in trenches to be measured and paid for separately]				
	110mm dia rigid UPVC pipe class - 3 [0.60mpa]	Mtr	70.00	₹ 575.80	₹ 40,306.00

85	Providing and fixing on wall face unplasticised rigid PVC soil waste and rain water pipes confirming to IS : 13592 Type A including jointing with seal ring confirming to IS:5382 leaving 10mm gape for thermal expansion [i] Single socket pipes.including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	110mm dia pipe	Mtr	40.00	₹ 388.30	₹ 15,532.00
86	Providing and fixing of 3 - layer white Rational moulded polyethylene cylindrical vertical water 2000 Ltr. capacity storage tanks confirming to IS:12701-1996 including cutting holes through the tank and fixing mild steel tubes and fittings and providing extra sockets and jam nuts , fixing ball valve etc. including hoisting up to a height of 5.00metres above ground level and placing the tank to the required position etc. all complete as per specification and direction of the engineer-in-charge.	Each	2.00	₹ 25,909.70	₹ 51,819.40
87	Extra over item no.3.1.8 for hoisting Rational moulded polyethylene cylindrical vertical water storage tanks of following sizes for every additional height of 5.00m. Or part thereof complete as per specification including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P				
	2000 liter capacity double layer cylindrical vertical water storage tanks	Each	2.00	₹ 1,195.80	₹ 2,391.60
88	Providing all materials, labour,T&P and fittings and fixing of different water supply (CP on Brass) fitting as per IS specification & approved make of following sizes and specification with leak proof threaded joints with spun yarn and white zinc or any other method as required and directed including all duties, transportation etc., testing and rectification of defects after testing complete as per direction of Engineer-in-charge. Make: HINDWARE/Jaquar/Parryware/Birla) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
88.1	15mm Angular Stop cock	Each	12.00	₹ 935.20	₹ 11,222.40
88.2	15mm dia C.P concealed	Each	8.00	₹ 1,121.60	₹ 8,972.80
88.3	15mm pillar cock	Each	4.00	₹ 901.00	₹ 3,604.00
88.4	CP Towel Rail	Each	4.00	₹ 1,072.20	₹ 4,288.80
88.5	C.P. glass shelf with glass	Each	4.00	₹ 790.10	₹ 3,160.40
88.6	CP Towel Ring	Each	6.00	₹ 546.80	₹ 3,280.80
89	Supplying all materials,labour and T&P for fixing CP Gratings of the following nominal diameter of outlet, of self cleaning design with sand cast iron screwed down or hinged grating with or without vent arm including cutting and making good to the walls and floors etc. all complete including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	C.P Gratings	Each	8.00	₹ 666.80	₹ 5,334.40

90	Supplying all materials,labour and T&P for fixing Bowl pattern urinal conforming to IS :2556: part 6-1996 including connecting the urinal of 430x260x350 mm or 340x410x265mm sizes respectively with waste pipe by means of white lead mixed with choppedhempetc. all complete as per specification including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	3.00	₹ 3,217.50	₹ 9,652.50
91	Supplying all materials,labour and T&P for Supplying all materials,labour and T&P for fixing wash down water closet (European type W.C.) with integral "S" or "P" trap tothe floor with wooden plug and chromium plated screw including jointing the trap with soil pipe in cement mortar (1:1) etc. all complete including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as				
	White vtreous China EWC	Each	4.00	₹ 3,085.20	₹ 12,340.80
92	Supplying all materials,labour and T&P for fixing plastic seat and cover for wash down water closet with chromium plated brass hinges and rubber buffe all complete including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	White Plastic seat and cover (Standard)	Each	4.00	₹ 791.00	₹ 3,164.00
93	Providing all materials, labour, and T&P for fitting and fixing of PVC low level cistern complete with all internal fittings of approved make as per IS-7231 with ISI mark and providing of necessary PVC wall plug, screws and 15mm dia PVC water connecting pipe with union at each end etc. As per specification all complete including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge. Make: HINDWARE/Jaquar/Parryware/Cera PVC low level Cistern(As per Cat no-Sleek Fresh ISI of Hindware)	Each	4.00	₹ 1,948.50	₹ 7,794.00
94	Supplying all materials,labour and T&P for fixing wash hand basin with hole for pillar taps confirming to IS 2556:part4-2004 with cast iron /M.S. brackets painted white including cutting holes in walls and making good to the damages etc. all complete including cost, conveyance, royalties, taxes of all materials, cost of				
	Wash hand basin 550x400mm	Each	6.00	₹ 3,264.60	₹ 19,587.60
95	Supplying fitting fixing of cromium plated CP over head shower rose with arm including polishing and complete including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	Over head shower	Each	4.00	₹ 739.70	₹ 2,958.80

96	Providing all materials, labour, T&P for fixing of following sizes of bevelled edge mirror of 5mm thick mounted on 6mm thick AC back sheet & CP cup screw with PVC wall plugs including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge. 600mm x 450mm size	Each	6.00	₹ 904.20	₹ 5,425.20
97	Supplying all materials,labour and T&P for fixing of [A] liquid soap container - glass container or plastic container with chromium plated brass lid and brackets fixed to wooden plugs with chromium plated brass screws [B] chromium plated brass soap dish complete with chromium plated brass brackets fixed to wooden plugs with chromium plated brass screws [C] white glazed tooth brush holder fixed to wooden plugs with chromium plated brass screws including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of	Each	10.00	₹ 348.90	₹ 3,489.00
	CP sope holder/ disc				
98	Supplying fitting fixing of PVC waste pipe of following nominal diameter of wash basin or sink including brass check nut complete including cost, conveyance, royalties, taxes of all materials, cost of	Each	14.00	₹ 125.00	₹ 1,750.00
	32mm dia				
99	Supplying fitting fixing of 15mm dia PVC inlet connection pipe and making connection with pillar cock and supply mains for wash basin complete including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	9.00	₹ 87.80	₹ 790.20
	15mm dia 15mm x 300mm				
100	Supplying fitting fixing of CP waste of the following noninal diameter for wash hand basin and sink including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	14.00	₹ 380.10	₹ 5,321.40
	32mm CP waste				
101	Supplying all materials, labour, T&P, fitting and fixing of following dia UPVC SWR (Ringfit) fittings of approved make confirming to IS-14735 with all duties, transportation & requisite testing including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge. Make:Astral / Supreme / Ashirvad/ Ajay/ AKG	Each	11.00	₹ 420.80	₹ 4,628.80
101.1	110mmx110mm 'P' Trap	Each	15.00	₹ 355.80	₹ 5,337.00
101.2	110mm Single Tee without door	Each	20.00	₹ 220.70	₹ 4,414.00
101.3	110mmx87.5° plane bend	Each	14.00	₹ 264.20	₹ 3,698.80
101.4	110mmx87.5° Door bend	Each	60.00	₹ 87.10	₹ 5,226.00
101.5	PVC 110mm dia pipe clip	Each	6.00	₹ 84.50	₹ 507.00
101.6	110mm Cowl	Each			

102	Supplying all labour and T&P for fixing CP short body Bib cock [taps] polished bright confirming to IS:781-1995 of the following nominal sizes as per specification all complete including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	15 mm dia Short Body Bib Cock	Each	4.00	₹ 914.00	₹ 3,656.00
103	Supplying all labour and T&P for fixing 2 in 1 bib cock of the following size as per specification all complete (including cost of cock) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	15 mm dia 2 in 1 Bib Cock	Each	4.00	₹ 1,306.70	₹ 5,226.80
104	Supplying fitting fixing of C.P health faucet highpressure lettered Hot and cold with long screws shanks and back nuts of the following nominal bore as per specification including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	15mm dia CP health faucet with 1.0M PVC tube	Each	4.00	₹ 809.80	₹ 3,239.20
105	Constructing inspection chamber with R.C.C top slab in (1:2:4) mix, foundation concrete (1:3:6), inside plaster 12mm thick with cement mortar (1:3) finished with neat cement punning, 12mm thick outside cement plaster (1:3), brick work with K.B bricks having crushing strength not less than 75kg/cm ² with dimensional tolerance \pm 8 percent in cement mortar (1:5), cement concrete (1:2:4) finished smooth using 12mm size h.g chips, earthwork in excavation in all kinds of soil and refilling the cavity around the chamber complete as per specification.including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	Inspection Chamber inside size 750mm x 750mm and 450mm deep - Type A	Each	6.00	₹ 11,040.50	₹ 66,243.00
106	Supplying all labour and T&P for fixing CP long body Bib cock [taps] polished bright confirming to IS:781-1995 of the following nominal sizes as per specification all complete including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
		Each	4.00	₹ 988.10	₹ 3,952.40
107	Constructing manholes with R.C.C top slab in (1:2:4) mix, foundation concrete (1:3:6), inside plaster 12mm thick with cement mortar (1:3) finished with neat cement punning, 12mm thick outside cement plaster (1:3), brick work with K.B bricks having crushing strength not less than 75kg/cm ² with dimensional tolerance \pm 8 percent in cement mortar (1:5), cement concrete (1:2:4) finished smooth using 12mm size h.g chips, earthwork in excavation in all kinds of soil and refilling the cavity around the chamber complete as per specification.including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				

	Plain Manholes inside size 900mm x 800mm and 450mm deep - Type A	Each	4.00	₹ 14,390.40	₹ 57,561.60
108	Constructing RCC soak way pit with R.C.C top slab in (1:2:4) mix, inside plaster 12mm thick with cement mortar (1:3) finished with neat cement punning, 12mm thick outside cement plaster (1:3), brick work with K.B bricks having crushing strength not less than 75kg/cm ² with dimensional tolerance \pm 8 percent in cement mortar (1:4), cement concrete (1:2:4) finished smooth using 12mm size h.g chips, complete as per specification.including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	Each	1.00	₹ 26,493.10	₹ 26,493.10
	TOTAL= 108 (ONE HUNDRED EIGHT) ITEMS ONLY				₹ 78,09,531.81
				Or Say.	₹ 78,09,532.00
RUPEES SEVENTY-EIGHT LAKH NINE THOUSAND FIVE HUNDRED THIRTY-TWO ONLY					
RATE QUOTED BY THE TENDERER					
			IN FIGURE	IN WORDS	
	PERCENTAGE EXCESS OVER THE ESTIMATED VALUE				
	PERCENTAGE LESS OVER THE ESTIMATED VALUE				
	PERCENTAGE AT PAR THE ESTIMATED VALUE				

APPROVED

CONTRACTOR

**Executive Engineer (C)
Directorate of Fisheries,
Odisha, Cuttack**

BID IDENTIFICATION NO: - 584 // Dt. 09.04.2026 //



GOVERNMENT OF ODISHA

FISHERIES & A.R.D. DEPARTMENT

DETAIL TENDER CALL NOTICE

FOR THE WORK

**“REPAIR & RENOVATION OF FISH FARM OFFICE
BUILDING, STORE, HATCHERY AT GOVT. FISH FARM,
BARKOTE IN DEOGARH DISTRICT”**

ESTIMATED COST PUT TO TENDER: ₹ 22,92,073.00


**EXECUTIVE ENGINEER (CIVIL) DIRECTORATE OF FISHERIES,
ODISHA, CUTTACK**

GOVERNMENT OF ODISHA
OFFICE OF THE EXECUTIVE ENGINEER (C), DIRECTORATE OF FISHERIES, ODISHA,
CUTTACK
E-MAIL: - eefedcuttack@gmail.com

Bid identification No. 584 / Dt. 09.04.2026 //

1. No. of works : 14 (FOURTEEN) Number of Civil works.
2. Type of works : Civil works.
3. Approximate Estimated Cost : Rs. 7.48 to 83.91 Lakhs.
4. Class of Contractor : 'D', 'C' & 'B'
5. Period of Completion : 01 (One) to 06 (Six) Calendar Months.
6. Date of Sale & Receipt : Dt. 16.04.2026 to 2.00 PM of Dt. 28.04.2026.
(Working days only).
7. Date of Opening : Dt. 30.04.2026 at 11:00 AM.
8. Name of Office inviting Bid : Executive Engineer (C), Directorate of Fisheries,
Odisha, Cuttack.

Further details can be seen in the bidding documents & can be down loaded from the Government of Odisha website (<http://www.odisha.gov.in>). Authority reserves the right to reject any or all the tenders without assigning any reasons thereof.



Executive Engineer (C)
Directorate of Fisheries,
Odisha, Cuttack

Memo No. 585 / Dt. 09.04.2026.

Copy forwarded to the Deputy Director cum Deputy Secretary to Govt. I & P.R. Department, Odisha, Bhubaneswar with a request to get it published in two nos. of local Oriya news papers and one local English daily at an early date for wide circulation of the tender call notice.

The Complimentary copy of the News Paper containing the tender call notice may be sent to this office for reference and record.


CD - 1 No


Executive Engineer (C)
Directorate of Fisheries,
Odisha, Cuttack

Memo No. 586 / Dt. 09.04.2026.


Copy forwarded to the Head, State Portal Group, I.T. Center, Odisha Secretariat Bhubaneswar with a request to display the Tender Call Notice in the Web-site of Government of Odisha till **2:00 PM** of **Dt. 28.04.2026**. The C.D. containing the above tender call notice (TCN) enclosed herewith for the purpose.

Encl.: CD - 1 No.


Executive Engineer (C)
Directorate of Fisheries,
Odisha, Cuttack

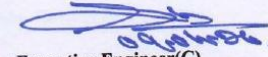
Memo No. 587 / Dt. 09.04.2026.

Copy submitted to the Director of Fisheries, Odisha, Cuttack/ Director of AH and VS, Odisha, Cuttack for favour of kind information and wide circulation.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack

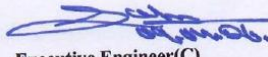
Memo No. 588 / Dt. 09.04.2026.

Copy submitted to Collector, Cuttack/ Collector, Angul/ Collector, Khordha/ Collector, Kalahandi/ Collector, Kendrapada/ Collector, Malkangiri/ Collector, Keonjhar/ Collector, Dhenkanal/ Collector, Deogarh/ Collector, Ganjam/ Collector, Puri for favour of kind information and necessary action.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack


Memo No. 589 / Dt. 09.04.2026.

Copy submitted to DCP, CUTTACK/ SP, Angul/ SP, Khordha/ SP, Kalahandi/ SP, Kendrapada/ SP, Malkangiri/ SP, Keonjhar/ SP, Dhenkanal/ SP, Deogarh/ SP, Ganjam/ SP, Puri for favour of kind information and necessary action.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack


Memo No. 590 / Dt.09.04.2026.

Copy forwarded to the DFO, Angul / DFO, (B&T), Balugaon / DFO, Kalahandi / DFO, Kendrapada / DFO, Malkangiri / DFO, Keonjhar / DFO, Dhenkanal / DFO, Deogarh/ DFO, Puri/ ADFO (M), Chhatrapur/ CDVO, Kalahandi for favour of information and necessary action. He is requested to sale; receive the tender documents at their level as per the scheduled time / place as mentioned above in the notice and send the sealed tender box to Executive Engineer, FED, Cuttack for opening the tender on or before Dt. 30.04.2026 at 11:00 AM.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack


Memo No. 591 / Dt. 09.04.2026.

Copy to the Asst. Engineer, FED, Cuttack for information and necessary action.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack

Memo No. 592 / Dt. 09.04.2026.

Copy to Notice Board / Divisional Accounts Officer / Estimator / Head Clerk / Cashier / Contractor Association, Bhubaneswar/ 1 spare copies for respective tender files.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack

GOVERNMENT OF ODISHA

OFFICE OF THE EXECUTIVE ENGINEER (C), DIRECTORATE OF FISHERIES, ODISHA, CUTTACK
E-MAIL: - eefedcuttack@gmail.com


Bid Identification No. 584 / Dt. 09.04.2026 //

1. The Executive Engineer (C), Directorate of Fisheries Odisha, Cuttack, on behalf of the Governor of Odisha invites **Percentage Rate** bids in single cover system for the work(s) as detailed in the table below, from **eligible** contractors registered with the State Government and contractors of equivalent Grade / Class for execution of Civil works on production of definite proof from the appropriate authority.

The bidders may submit bids for any or all of the following works.

Sl. No	Name of the work	Value of work put to tender (Rs)	Addl. Places of sale & receipt of tender Paper	Class of contractor	Bid Security (Rs.)
1	2	3	4	5	6
1.	SPECIAL REPAIR OF CHINESE HATCHERY AT HERITAGE GOVT. FISH FARM IN ANGUL DISTRICT.	₹ 7,48,045.00	DFO, Angul	D & C	₹ 7,481.00
2.	CONSTRUCTION OF ANNEX BUILDING (REPAIR & RENOVATION) OF B&T BALUGAON OFFICE BUILDING IN KHORDHA DISTRICT	₹ 22,18,624.00	DFO (B&T), Balugaon	C & B	₹ 22,187.00
3.	CONSTRUCTION OF ENTRANCE GATE WITH BOUNDARY WALL OF DDF KALAHANDI ZONE IN KALAHANDI DISTRICT	₹ 17,25,014.00	DFO, Kalahandi	D & C	₹ 17,251.00
4.	CONSTRUCTION OF BOUNDARY WALL AT BFO BUILDING, RAJNAGAR BLOCK IN KENDRAPADA DISTRICT	₹ 33,88,261.00	DFO, Kendrapada	C & B	₹ 33,883.00
5.	CONSTRUCTION OF ANNEX BUILDING OF DISTRICT FISHERIES OFFICER OFFICE BUILDING IN MALKANGIRI DISTRICT	₹ 33,87,621.00	DFO, Malkangiri	C & B	₹ 33,877.00
6.	CONSTRUCTION OF ANIMAL REHABILITATION CENTRE AT BHAWANIPATNA, KALAHANDI DISTRICT	₹ 30,20,852.00	CDVO, Kalahandi	C & B	₹ 30,209.00
7.	CONSTRUCTION OF ANNEX BUILDING OF DFO, KEONJHAR	₹ 62,07,860.00	DFO, Keonjhar	B	₹ 62,079.00
8.	CONSTRUCTION OF ANNEX BUILDING OF DFO, DHENKANAL	₹ 71,10,312.00	DFO, Dhenkanal	B	₹ 71,104.00
9.	CONSTRUCTION OF BIO-FLOC UNIT AT K.V.K., KEONJHAR	₹ 14,15,817.00	-	D & C	₹ 14,159.00
10.	CONSTRUCTION OF ANNEX BUILDING OF DISTRICT FISHERIES OFFICE AT KENDRAPADA DISTRICT	₹ 34,66,408.00	DFO, Kendrapada	C & B	₹ 34,665.00
11.	CONSTRUCTION OF CDVO OFFICE BUILDING AT BHAWANIPATANA IN KALAHANDI DISTRICT	₹ 83,91,050.00	CDVO, Kalahandi	B	₹ 83,911.00
12.	REPAIR & RENOVATION OF FISH FARM OFFICE BUILDING, STORE, HATCHERY AT GOVT. FISH FARM, BARKOTE IN DEOGARH DISTRICT	₹ 22,92,073.00	DFO, Deogarh	C & B	₹ 22,921.00
13.	RENOVATION, UP-GRADATION & EXPANSION OF OFFICE BUILDING OF ADF (M) AT HUMARI (CHHATRAPUR) IN GANJAM DISTRICT	₹ 78,09,532.00	ADF (M) Chhatrapur, Ganjam	B	₹ 78,096.00
14.	RENOVATION WORK WITH FURNITURE & FIXTURE OF DOLPHIN TRAINING CENTER AT PURI	₹ 33,56,095.00	DFO, Puri	C & B	₹ 33,561.00

2. The sale and receipt of the Bid documents shall start from **Dt. 16.04.2026** and closes on **Dt. 28.04.2026** at **14.00 hours** in the office of under signed. The Bids will be opened on **Dt. 30.04.2026** at **11:00 AM** in the office of the **Executive Engineer [C] Directorate of Fisheries, Odisha, Cuttack.**
3. All other detail information can be seen in the Bidding documents and can be downloaded from the Govt. of Odisha web site (<https://odisha.gov.in>).
4. Authority reserves the right to reject any or all the tenders without assigning any reasons thereof.


Executive Engineer(C)
Directorate of Fisheries,
Odisha, Cuttack
09/04/26

CHECK LIST TO BE FILLED UP BY THE BIDDER

Sl. No.	Particulars	Reference To	Weather Furnished		Reference To Page No.
			Yes	No	
1.	Cost of tender paper ₹ 6,000.00 (Cash/Demand Draft)	Clause No. 5 & 13			
2.	Earnest Money ₹ 22,921.00 Either in shape of NSC / KVP / BANK GURANTEE/FIXED DIPOSIT / TDA from any Nationalized/Scheduled bank payable at CUTTACK or / Postal Savings Passbook / Postal Office Time Deposit Account only, duly pledged in favour of Executive Engineer[C], Directorate of Fisheries, Odisha, Cuttack.	Clause No. 4, 7 & 64			
3.	Additional Performance Certificate in case the bid price/rate is less than the estimated cost put to tender	Clause No. 9			
4.	Copy of Valid registration Certificate	Clause No. 7 & 20			
5.	Copy of Valid GST Regd. Certificate & GSTIN	Clause No. 7 & 20			
6.	Copy of Valid Pan Card	Clause No. 7 & 20			
7.	Annual Financial Turnover Certificate from C. A (For last five financial year i.e., from Year 2020-21 to Year 2024-25)	Clause no.72			
8.	No Relation Certificate (Schedule – A)	Clause No. 54			
9.	Works Experience: -				
(i)	List of projects executed that are similar in nature to the work (last five financial year) i.e., from year 2020-21 to year 2024-25 (Schedule-C)	Clause No.57			
(ii)	Works in hand List of projects in progress that are similar in nature to the work (last five financial year) i.e., from year 2020-21 to year 2024-25 (Schedule – B)	Clause No.57			
10.	Information regarding current litigation, debarring/expelling of the tender or abandonment of the work by the tenderer (Schedule – D)	Clause No. 73			
11.	Affidavit (Schedule – E)	Clause No.74			
12.	MOU (Memorandum of understanding duly notarized) with eligible registered electrical contractor having valid H.T/L. T/ M.V license with electrical contractor license, GST and Pan Card)	Clause No.71			
13.	Personal information regarding the tenderer i.e., Phone No., Email ID, FAX	Clause No. 70			
14.	Tools and Plants and Machineries as per the requirement (Proof of Ownership of T&P and Machineries are to be furnished in shape of copy of invoices/ required sale deed in case of 2 nd purchase/ required lease deed with ownership documents of the leaser dully attested/ Affidavit showing the possession. In case of centring and shutting materials an affidavit regarding possession of materials should be submitted)	Clause No. 57			
	LIST OF PLANTS AND EQUIPMENTS	REQUIREMNT			
A.	Truck/ Tipper	2 no			
B	Tractor with Trolley	2 no			
C	Water Tanker (4000 Ltr.)	1 no			
D	Needle Vibrator	2 no			
E	Plate Vibrator	2 no			
F	Generator (10 KVA)	1 no			
G	Concrete Mixer	1 no			
H	Centring and Shuttering Material	200 Sqm			
I	Excavator	2 no			

CONTRACT DATA

A. GENERAL INFORMATION

Sl. No.	Particulars	Details
1.	Bid Identification No.	584 Dt. 09.04.2026
2.	Name of the work	REPAIR & RENOVATION OF FISH FARM OFFICE BUILDING, STORE, HATCHERY AT GOVT. FISH FARM, BARKOTE IN DEOGARH DISTRICT
3.	Officer inviting tender	Executive Engineer (Civil), Fishery Engineering Division, Cuttack
4.	Accepting Authority	Executive Engineer (Civil), Fishery Engineering Division, Cuttack
5.	Estimated Cost put to tender	₹ 22,92,073.00 (RUPEES TWENTY-TWO LAKH NINETY-TWO THOUSAND SEVENTY-THREE ONLY)

B. BID INFORMATION

Sl. No.	Particulars	Details
1.	Intended Completion period / Time period assigned for completion	03 (THREE) Calendar Months
2.	Date from which the tender paper can be sold	Dt. 16.04.2026
3.	Last date & time for submission of bid.	Dt. 28.04.2026 up to 2:00 P.M.
4.	Location where the tender paper can be sold & received	O/o- The Executive Engineer (Civil), Fishery Engineering Division, Cuttack & O/o- The District Fisheries Officer, DEOGARH
5.	Cost of tender paper	₹ 6,000.00 (To be paid through cash or DD)
6.	EMD Amount	₹ 22,921.00 (To be pledged in shape of NSC / KVP / BANK GURANTEE/FIXED DIPOSIT / TDA from any Nationalized/Scheduled bank payable at CUTTACK or / Postal Savings Passbook / Postal Office Time Deposit Account
7.	Bid validity Period	90 (Ninety) Calendar days
8.	Currency of contract	Indian Rupee
9.	Language of contract	English

**OFFICE OF THE EXECUTIVE ENGINEER (CIVIL)
DIRECTORATE OF FISHERIES, ODISHA,
CUTTACK**

DETAIL TENDER CALL NOTICE

1. Sealed tenders (Percentage rate bids) in prescribed form to be eventually drawn up in P.W.D. form no. P-1 will be sold & received up to **2.00 P.M** on **Dt. 28.04.2026** by the **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack** for the work **“REPAIR & RENOVATION OF FISH FARM OFFICE BUILDING, STORE, HATCHERY AT GOVT. FISH FARM, BARKOTE IN DEOGARH DISTRICT”** from **“C” & “B”** class contractors and will be opened by the **Executive Engineer[C] Directorate of Fisheries Odisha, Cuttack** in the presence of the tenderer or their authorized agents who wishes to attend at **11:00 A.M. on Dt. 30.04.2026** in O/o the Undersigned. The amount of the estimate is approximately **₹ 22,92,073.00**.
2. The tenderer should please note that the work will have to be completed within **03 [THREE] calendar months**, commencing from the date of issue of work order. 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 incase of failure on the part of the agency to achieve the milestone liquidated damage will be imposed. Without these Programme of works, the tender will not be accepted. Authority for acceptance of tenders would rest over the Executive Engineer (Civil), Directorate of Fisheries, Odisha Cuttack.
3. The tender call notice can be seen from official web site of Government of Odisha (<http://www.orissa.gov.in>) The bidding documents can also be downloaded from internet site. The bidder who download the bidding document from the internet site will have to pay the cost of bid document i.e. **₹. 6,000/-** in shape of demand draft from any Nationalized/Scheduled bank payable at **Cuttack** in favour of **Executive Engineer[c] Directorate of Fisheries, Odisha, Cuttack** and submit the demand draft in separate envelop marked **‘cost of the bidding document downloaded from internet ‘with bid documents**. The authority will not responsible, if any portion of the approved documents available in the office of **Executive Engineer[C], Directorate of Fisheries, Odisha, Cuttack** is excluded or modified. The download facility will be available up to last date of sale of tender papers. The cost of bid documents is not refundable.
4. Tenderer are required to pay earnest money **₹ 22,921.00** Either in shape of NSC / KVP / BANK GURANTEE/FIXED DIPOSIT / TDR from any Nationalized/Scheduled bank payable at **CUTTACK** or / Postal Savings pass book / Postal Office Time Deposit Account only, duly pledged in favour of **Executive Engineer[C], Directorate of Fisheries, Odisha, Cuttack** otherwise tender will not be considered.
5. Bidding documents requested by mail will be dispatched by registered/speed post on payment of an extra amount of Rs.500.00 (Rupees five hundred) only over the cost of documents. The Department will not be held responsible for the postal delay if any, in the delivery of the documents or non-receipt of the same.
6. If the tender documents sent through registered / speed post, do not reach in the concerned office by the above date and time, the offer will not be considered on any account even if the tender documents were dispatched by the tenderer before the due date.

7. The tender is to be submitted with EMD, signed DTCN, attested copy of registration certificate, PAN card, valid GSTIN, original Money Receipt, certificates duly filled-in and documents required as per the relevant clauses of this DTCN and special conditions if any. The cover is to be sealed and super scribed for the work **“REPAIR & RENOVATION OF FISH FARM OFFICE BUILDING, STORE, HATCHERY AT GOVT. FISH FARM, BARKOTE IN DEOGARH DISTRICT”** In order to ensure that the envelopes are properly sealed, the contractor can seal them with superglue and also add tamperproof tapes as additional precaution. Bidders desirous to hire machineries or equipments from outside the state are required to furnish 2% of the amount put to tender as Bid Security. The bidder claiming for exemption of EMD amount must submit application separately for such purpose along with the documentary proof in Original on the date & time of opening of tender otherwise his tender is liable for rejection.

8. The tenderer are not required to write their name on the outer cover containing the bid documents. They are only required to write the name of the work and authority who had issued the tenders. The tender submitted in the wrong box shall not be taken in to consideration.

9. Additional Performance Security;

9.1 The selected bidder shall deposit Additional Performance Security on an incremental basis for low bid prices, in accordance with Office Memorandum No. 173 dated 03.01.2026 and Office Memorandum No. 632 dated 09.01.2026 issued by the Works Department as under.

9.2 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.

9.3 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;

9.4 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

9.5 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.

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

Additional Performance Security (APS) is being obtained from the Successful Bidder when the Bid amount is less than estimated cost put to tender to the extent as given in the table below, in shape of Term Deposit Receipt pledged in favour of Divisional Officer/Bank Guarantee in favour of the Divisional Officer from any Nationalized /Scheduled Bank in India counter guaranteed by its local branch at Cuttack within seven days of issue of Letter of Acceptance (LoA) by the Divisional Officer (by e-Mail) to the successful bidder otherwise the bid of the successful bidder shall be cancelled and the he will be debarred from tendering for a period of 180 days. Further, proceeding for Blacklisting shall be initiated against the bidder as per amendment to Para 3.5.5 (v) of OPWD Code Volume-I vide Works Department Office Memorandum No. 14459/W dated 20.09.2018.

10. 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.

11. If the rate quoted by the SC ST Category contractors comes to the rate quoted by the L1 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.

12. 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 the 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 abnormally low bid.

13. Besides the earnest money deposit and initial security deposit, contractors of all class except C&D class will be required to furnish security deposit by way of deduction from their bills at the rate of 5% of the gross amount of each bill whereas in case of C&D class contractor, such deduction will be made at the rate of 3% of the gross amount of each bill. Thus, the total securities deposit from the contractor will be 7% for super, special, A & B and 5% for 'C' and 'D' class contractor as case may be.

14. In case of Govt. parties, co-operative Societies Diploma or Degree holders in Engineering who are registered with the Department, the rules framed by the government from time to time about EMD deposit, initial security deposit will apply.

15. The Bids will be opened on **Dt. 30.04.2026** at **11:00 A.M** by **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack**, in the office of the **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack** in the presence of the bidders or their authorized representatives who wish to attend. If the office happens to be closed on the last date of receipt or opening of the bids as specified, then the bids will be received / opened on the next working day at the same time and venue unless otherwise notified.

16. The plan and specifications for the work can be seen in the Office of the **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack** during working hours and days, Complaints at a future date that the plan and specifications have not been seen cannot be entertained. The Contractor may obtain a set of tender documents for the work from the office of the **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack & O/o- District Fisheries Officer, DEOGARH** on payment of **₹ 6,000.00**, which is non-refundable. The name of the work should be super scribed on the top of the cover.

17. All other information's can be obtained on application to the **Executive Engineer[c] Directorate of Fisheries Odisha, Cuttack**.

18. The Executive Engineer (C), Directorate of Fisheries Odisha reserves the right to reject any or all the

tenders without assigning any reasons thereof.

19. The tenderer whose tender is selected for acceptance shall within a period of seven days upon written intimation being given to him of acceptance of his tender make an initial security deposit of 1% (One percent) of the tendered amount, so that the earnest money and initial security deposit will be 2% of the tendered amount and sign the agreement in the P.W.D. form No. P-1 for the due fulfillment of the contract in the office of the **Executive Engineer[C] Directorate of Fisheries Odisha, Cuttack.**

20. This security deposit, together with the earnest money and the ISD amount withheld according to the provision of P-1 agreement shall be retained as security deposit for the due fulfillment of this contract. Failure to enter into the required agreement and to make the security deposits above shall entail forfeiture of the earnest money. No tender shall be finally accepted until the required amount of security money deposited. The written agreement to be entered into between the Contractor and the Govt. shall be the foundation right of the parties and the contract shall be deemed to be incomplete until the agreement has first been signed by the contractor and then by the proper officers authorized to enter into the contract and then by the proper officers authorized to enter into the contract on behalf of the Govt. The Dept. will accept the security deposits in the form of NSC / KVP / BANK GUARANTEE/FIXED DIPOSIT / TDA (from any Nationalized/Scheduled bank payable at (**Cuttack**) or / Postal Savings pass book duly pledged in favour of **Executive Engineer[C] Directorate of Fisheries Odisha, Cuttack** and in no other form.

21. The rates (in percentage of excess / less / at par the estimate value) should be quoted in words and figures otherwise the tender will be liable for rejection.

In case of discrepancy in rates between words and figures, the rate in words shall prevail and in case of discrepancy between units. rate & totals the unit rate shall prevail. The tender shall be written legibly and free from erasures, over writings or in cases where corrections are unavoidable the same should be made by scoring out. initialing dating and rewriting.

22. The contractors will be responsible for payment of all royalties, D.M.F, E.M.F, Additional Charges or other charges for quarrying materials. All local taxes inclusive of State Sales Tax & Income tax, Ferry. Tollage Charges, Octroi taxes, labour CESS is to be paid by Contractor.

23. The tender may not, at the discretion of the competent authority be considered unless accompanied by attested copies of Valid Registration Certificate, the original money receipt towards purchase of tender documents, GST certificate, Pan card. non- assessment certificate. The original certificates of the same only should be produced before the **Executive Engineer[c] Directorate of Fisheries, Odisha, Cuttack** for verification within **03 (three) days** of opening of tender, otherwise the bid shall be considered as non – responsive and thus will be summarily rejected.

24. If the contractor removes any materials or stock so supplied to him from the site of work with a view to dispose of the same dishonestly. he should in addition to any other liability. Civil or Criminal arising out of the contract be liable to pay a penalty equivalent to five (5) times the price of the materials or stock according to the stipulated rates and the penalty so imposed shall be recovered from any sum that may then or at any time thereafter become due to the contractor or from his security or from the 'proceeds of sales thereof.

25. The contractor should be fully liable to indemnify the department for payment of any compensation under 'Workmen's' compensation Act VIII of 1928 on account of the workman being employed by

him and the full amount of compensation paid will be recovered from the contractor.

26. Every tenderer must examine the detailed standard specification of Odisha before submitting his tender. The right is reserved without impairing the contract to make such increase or decrease in the quantities or items of work mentioned in the schedule attached to the tender notice as may be considered necessary to complete the work fully and satisfactorily. Such increase or decrease shall in no case invalidate the contract or rates. It shall be understood that the Govt. do not accept any responsibility for the correctness or completeness of the quantities shown in the Schedule. The schedules are liable to alternation by omission, or additions and such omissions or deductions shall in no case invalidate the contract and no extra monetary compensation will be entertained.

27. The following materials will be supplied by the Department to the contractor at Godown at the price inclusive of storage charges as noted against each. After issue it will be contractor's responsibility for safe custody and upkeep of materials. He has also to bear all incidental charges such as transportation, Storage handling and return of empty cement bags and empty paint drums at the issuing stores. His rates quoted for the work to be inclusive of all such charges.

a. Cement in gunny bags at the rate of Rs-..... Rupees (.....) per quintal excluding cost of empty gunny bags.

b. Paints.

c. M.S. Rods will be supplied at the rate of Rs-/ Qntl.

d. Tor steel will be supplied at the rate of Rs-/ Qntl.

28. All the materials which are to be supplied from P. W.D. Stores will be as per the availability of stock and the contractor will have to bear charges of straightening cutting, jointing, welding cranking, hooking etc. of M.S. Rods or tor steel to required size. No cut pieces of M.S. rods, M. S. Angles, Tees & joints etc. will be accepted back as surplus and all these will be contractor's property. After issue from the P. W.D. stores the materials will be under the custody of the contractor and the contractor will be responsible for its safety and storage.

29. Empty cement bags and empty paint drums etc. are to be returned in good and serviceable conditions at the issuing stores failing which Rs (Rupees_) only will be recovered per bag and per drum respectively from the contractor.

30. All reinforced cement concrete work should conform to Orissa Detail standard specification and should be of proportion 1 :2:4 / 1 :1/1/2:3 having minimum compressive strength in work test of 150 Kg / cm² / 200 Kg / Cm² in 15 Cm cubes at 28 days after mixing and tests conducted in accordance with IS: 1456 & 516 using 12 mm to 20 mm size hard black broken granite chips (20 mm size not to exceed 25%).

31. Shuttering and centering shall be with seasoned Sal wood planks and the Inside of which shall be lined with suitable sheeting and made leak proof and water tight or alternatively steel shuttering may be used.

32. The selected contractor may take delivery of departmental materials according to his need for the work issued by the Sub -Divisional. Officer or Assistant Engineer in charge of the work. The contractor shall make all arrangements for proper storage of materials, but no cost for shed for the storage of materials and pay of watchman etc. be borne by the Dept. These are also to be borne by the contractor. The department is not responsible for considering the theft of materials at site. It is contractor's risk under any such circumstances if the contractor stops the work he shall have to pay the full penalty as per clauses of the PI contracts.

33. For the purpose of jurisdiction in the event of dispute if any, contract should be deemed to have entered into within the state of Orissa and it is agreed that neither party to the contract nor the agreement will be competent to bring a suit in regard to the matters covered by this contract at any place outside the State of Orissa.

34. After the work is finished all surplus materials and debris are to be removed by the contractor and preliminary work such as Vat, mixing platform etc. are to be dismantled and all the materials are to be removed from the site. The ground up to 30 M (100 Ft) wide from the building should be cleared and dressed.

No extra payment will be made to the contractor on this account. The rate quoted should be inclusive of all these items.

35. The contractor shall not interfere with the execution of water supply or Electrical fitting arrangements and any other works entrusted to any other agency by the department at any time during the progress of the work.

36. The Department will have the right to inspect the scaffolding & centering made for the work and can reject partly or fully such structures if found defective in their opinion.

37. The contractor will have to arrange for water supply for all works and make necessary sanitary arrangements at his own cost for his labour camp. Contractor has to arrange adequate lighting arrangements for night work whenever necessary at his own cost.

38. Bailing out water from the foundation either rain water or subsoil water if necessary should be borne by the contractor. No payment will be made for bench marks, level pillars, profiles & benching and leveling round where required. The rates quoted should be for finished items of work inclusive of those incidental items of work.

39. All the quantities mentioned in the schedule are combined for ground floor and multi floors in case of multi-storied building and the rates should be through for the same.

40. Cement concrete in roof slab, beams etc. wherever prescribed by the Engineer-in-charge shall be machine mixed and vibrated and the contractor should arrange his own concrete mixers, vibrators, pumps etc. for the purpose.

41. It should be understood clearly that no claim what so ever will be entertained in regard to extra items of works or extra quantity of any items besides estimated amount. A written order must be obtained from the responsible works officer of fisheries department. and rates settled for the extra items of works or extra quantity of any item of work according to clause II of P1 contract The rates of any item not covered in the Agreement will be arrived on derivation from the rate of same class of item of work with any different specification provided in the agreement with addition or subtraction of corresponding cost of materials. In case, no rate can be derived from the agreement, the same will be arrived or derived from the schedule of rates in vogue at the time of actual execution of that item of work.

42. The tenderer shall have to abide by the OPWD safety code rules introduced by the Govt. of India Ministry of Works, Housing & Supply in their standing order No. 44 to 50 Dt. 25-11-57 which can be seen in the office of the Executive Engineer(C) Directorate of Fisheries, Orissa, Cuttack on working hours and days.

43. Tenderer are required by the Fair wage clause as introduced by the Govt. of Orissa, Works Dept. No. CA. VIIIIR 18/52-25 Dt. 26-2-55 & No.11 M/ 56/61-28842 (5) Dt. 27-9-61 in case of any complaint by the labourers working about the nonpayment or less payment of his/her wages as per minimum wages act the

Executive Engineer will have the right to investigate and if contractor is found to be in default he may recover such amount from the dues of the contractor and pay the due amount to such labourer directly under intimation to the local labour officer and the Govt. and the decision of the Executive Engineer(C) Directorate of Fisheries, Orissa, Cuttack will be final and binding on the contractor.

44. The department will have the right to supply at any time in the interest of the work any departmental materials to be used in the work, in addition to those mentioned In the clause and the contractor shall use such materials without any controversy or dispute on that account. The rates of such materials will be at the stock issue rates fixed by the department plus storage charges or market rates whichever is higher.

45. The contractor will be responsible for the loss or damage of any departmental materials equipments supplied to him under clause 13/30 during execution of the work due to reasons whatsoever and the cost of such materials will be recovered from him at the prevailing stock issue rate plus storage charges or market rates whichever is higher.

46. The contractor should arrange at his own cost necessary tools & plants, machines, concrete mixers & Vibrators & other machineries such as pumps etc. required for the efficient execution of the work and the rates quoted should be inclusive of the running charges of such plant and cost of consumables.

47. The contractor will have to submit the **Executive Engineer[C], Directorate of Fisheries, Odisha, Cuttack** monthly return of labour both skilled and unskilled employed by him on the work.

48. The tenderers are required to go through such clause of P. W.D. Form No F2 carefully in addition to clause mentioned herewith before tendering. No part of the contract shall be sublet without written permission of the Executive Engineer(C) Directorate of Fisheries, Odisha, Cuttack or transfer made by power of attorney authorizing others to receive payment on the contractor's behalf.

49. If further necessary information is required, the **Executive Engineer[C], Directorate of Fisheries Odisha, Cuttack** will furnish such, but it must be clearly understood that the tenders must be received in order and according to instructions.

50. Cement shall be used by bags and weight of one cubic meter of cement being taken as 14.42 quintals.

51. In the event of any delay due to Dept. in the supply of departmental materials or supply of detailed structural designs for unavoidable reasons, reasonable extension of time will be granted on the application of the contractor. But no claim for monetary compensation will be entertained under any such circumstances for which a no claim undertaking has to be furnished by the contractor in the prescribed Performa along with the application for extension of time submitted by him.

52. No contractor will be permitted to furnish their tenders in their own manuscript papers.

53. Every tenderer is expected before quoting his rates to inspect the site of proposed work. He should also inspect the quarries and satisfy himself about the quality, availability of materials, medical aids. labour & food stuffs etc. and the rates should be inclusive of all those Items of work. In every case the materials must comply with the relevant specifications and samples of stones, metals, chips etc. and other materials to be used are to be deposited in sealed bags duly labeled noting the name of quarry under dated initials by the tenderer for approval of the Executive Engineer(C) Directorate of Fisheries, Odisha, Cuttack.

54. Govt. will not however, after acceptance of contract rate pay any extra charges for lead or any other reasons in case the contractor is found later on to have misjudged the materials available.

55. All fitting for doors & windows if supplied by the Contractor should be of best quality and should be got approved by the Executive Engineer(C) Directorate of Fisheries, Odisha, Cuttack before they are used in the work.
56. The tenders containing extraneous conditions not covered by the tender call notice are liable for rejection.
57. The contractor shall have to furnish a certificate along with tender to the effect that he is not related to any officers of the rank of Asst. Engineer and above and any officer of the rank of Under. Secretary & above of the Fisheries Department.
58. All the tenders received will remain valid for a period of ninety days from the date of receipt of tenders. The period of validity can also be extended if agreed to by the Dept. and the contractor.
59. After completion of the work the contractor shall arrange at his own cost all requisite equipment for testing building if found necessary and bear the entire cost of such test.
60. Tenderers are required to submit **(1) a list of works in their hands in the prescribed proforma enclosed herewith (2) list of T & P (3) List of works executed along with the tender.**
61. Letter etc. found in the tender box raising or lowering rates or dealing with any point in connection with the tender will not be considered.
62. All reinforced cement concrete works like lintels, column, beam, chajja. Roof slab & other such works should be finished smooth and No extra charges for plastering if required shall be paid by the Dept.
63. The contractor shall employ one or more Engineering Graduate or Diploma Engineers as apprentices at his own cost for works costing As. 2.5 lakhs or more. The period of employment will commence within one month from the date of issue of work order and would last till the date when 90% of work is completed Number of apprentices employed should fixed by Executive Engineer in a manner so that the total expenditure does not exceed 1 % of the Tendered cost of the work (under works & Transport Dept. No. 67811 Dt. 12-8-67).
64. The tenderer shall bear cost of various incidental sundries and contingencies necessitated by work falling within the following or similar category.
- a. Rent royalties and other charges of materials. Octroi duties, all other taxes Including sales tax, ferry/ tools conveyance charges and other cost on account of land and building including temporary building required by the tenderer for collection of materials storage housing of staff or other by the tenderer for purpose of the work. No rent will however be payable to Govt. for temporary occupation of land or owned by Govt. at the site of the work.
- b. labourers camp or huts necessary to a suitable scale including conservancy and sanitary arrangements there in to the satisfaction of the local health authorities.
- c. Suitable water supply including pipe water supply wherever available for the staff and the labour as well as for the work.
- d. Fees and dues levied by the Municipal Canal or water supply authorities.
- e. Suitable equipments and wearing apparatus for labour engaged in risky operations.
- f. Suitable fencing barriers signals including paraffin & electric signals where necessary at works and approaches in order to protect the public and employees from accidents
- g. Compensation including cost of any suits for injury to persons or property due to neglect or any

major precautions and also sums which may become payable due to operation of workmen compensation act.

h. The contractor has to arrange adequate lighting arrangements for night work wherever necessary at his own cost.

i. The contractor has to arrange all the building materials including equipments required ... undertaking under-reamed piles foundation for starting the work, if required.

65. 1% (One percent) of gross amount of the bill be deducted towards Income-tax from the contractors bills.

66.

a. If during the progress of work the price of any materials in the work not being materials supplied from the Engineer-in-charge's stores (in accordance with clause hereof) increase or decrease as a result of increase or decrease in the average wholesale price index (all commodities). and the contractor thereupon necessarily pays In respect of that material (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 75% 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 tender was opened. as per the Formula indicated below-

Formula to calculate the. increase or decrease in the price of material

$$V_m = \frac{0.75 \times p_m}{100} \times \frac{R(1-I)}{10}$$

V_m = Increase or decrease in the cost of work during the quarter under consideration due to change in the price of materials.

R = The value of work done in rupees during the quarter under consideration.

IO = The average wholesale price index (all commodities) for the quarter In which the tender was opened as published in the Indian labour journal/Economic Adviser, Ministry of Industries, Govt. of India.

I = The average wholesale price index (all commodities) for the quarter under consideration.

P_m = Percentage of material component as per Sub-clause of this clause.

b. Similarly, if during the progress of work, the wage of labour increases or decreases as a result of Industrial workers (Wholesale price) which is operating for the quarter under consideration and that operated for the quarter in which the tender was opened as per the formula Indicated below;-

Formula to calculate the increase of decrease in the cost of labour

VI = Increase or decrease in the cost of work during the quarter under consideration due to change in the rate of labour.

R = The value of work done in Rupees during the quarter under consideration.

IO = The average consumer's price Index for the quarter industrial workers (wholesale price) for the quarter in which tender was opened.

I = The average Consumer's Price Index for Industrial workers (Whole sale price) for the quarter under consideration

PI = Percentage of Labour Component as per Sub-clause of this clause.

- c. Similarly, if during the progress of work, the price of petrol. Oil and lubricants (Diesel Oil being the representatives for price adjustment) increases or decreases as a result of the price fixed therefore by the Govt. of India and the contractor thereupon necessarily and properly pays such increased or decreased price towards petrol, PO L and Lubricants used in execution of the work. then he shall be entitled to reimbursement or liable to refund, quarterly as the case may be such difference in an amount, as shall be equivalent to the plus or minus difference in between the price of POL which is operating for the quarter under consideration and that operated for the quarter in which the tender was opened as per the formula indicated below.

Formula to calculate the increase or decrease in the price of POL $KI = 0.75 \times \frac{R_2}{100} \times R \times \frac{(I_2 - I_1)}{I_1}$

KI = Increase in the cost of work during the quarter under consideration due to change in the price of PO.L.

R = The value of work done in Rupees during the quarter under consideration.

DI = Average price per liter of diesel Oil was fixed by the Govt. of India during the quarter in which the tender was opened.

D2 = Average price per liter of diesel Oil which is fixed during the quarter under consideration.

K2 = Percentage of P.O.L. component as per Sub-clause of this clause

- d. The following shall be the percentage of materials. labour and P.O.L. Component for reimbursement refund on variation in price of material, labour and P.O.L as per Sub-clause (a), (b) & (c) of this clause.

(Category of Work) W	Contractor's supply			Dept. supply of materials
	% of Material	% of Labour	% of P.O.L.	
Irrgn. Works				
(A) Structural works	20%	30%	5%	45%
(B) Earth work, Canal work, embankment work etc.	20%	60%	5%	15%
R & B Work:				
(a) Bridge work	20%	30%	5%	45%
(b) Road Work	45%	40%	5%	10%
(c) Building Work	30%	30%	5%	35%

ick is supplied by the Dept. It should be 20% instead of 30%)

- e. Reimbursement/refund on variation in price of materials. labour and POL as per Sub- clause (a), (b) and (c) of this sub-clause shall be applicable only in respect of contract of one year or .more provided that the work has been carried out within the stipulated time or extension thereof as for not attributable to contractor. However the original contractual period is less than one year but subsequently it has been validly extended and the period becomes one year or more escalation clause shall be applicable only for the balance portion of work

to be executed beyond one year provided the delay is not attributable to the contractor.

f. The contractor shall for the purpose of sub-clause (a),(b),(c) of this clause keep such books of account and other documents as are necessary to show the amount of increase claimed or reduction available and shall allow inspection of the same by a fully authorized representative of Govt. and further shall at the request of the Engineer in charge may require any document kept and as such other information as the Engineer-in-charge may require.

The contractor shall within a reasonable time of his becoming aware of any alternation in the prices of such material, wages or 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 together with and information relating thereby which he may be in a position to supply No claims for price adjustment other than these provided herein shall be entertained.

67. The bidder shall furnish an affidavit in support of authenticity of documents , relaxation of EMD in case of Engineer Contractor along with the bid. The authority reserves the right to verify the authenticity of documents in case of any doubt or complain.

68. The schedule caste / schedule tribe contractors' desires to avail the facility of 10% price preference should enclose the copy of their registration certificate stating fact of the caste by their registration authority with the bid, failing which they will not get the price preference as per rule in force.

69. Submission of more than one tender paper by a bidder for a particular work will liable for rejection of all such tender papers.

70. Over and above to these conditions the terms and conditions and rules and regulations as laid down in Orissa Detailed Standard Specifications and Orissa P. W. D. code and it's up to date amendments/contractual provisions are also binding on the part of this contract.

71. The date of issue of the notice to the contractor to attend **Office of Executive Engineer[C] Directorate of Fisheries Odisha, Cuttack** for signing the agreement shall be treated as the date of commencement of work.

72. As goods & service tax has come in to force with effect from 01.07.2017 GST as applicable will be paid extra after gross bill amount prepared.

73. Bidders must furnish their present e-mail address/ fax no./ telephone no. for correspondence.

74. The civil contractor in order to take part in the composite tender should enter into an M.O.U. (Memorandum of Understanding duly notarized) with eligible registered electrical contractor having valid H.T./ L.T./ M.V. license, for execution of electrical installation and other electrical works and a copy of such M.O.U. should be attached with the tender which tender which shall form a part of tender. A copy of electrical license, GSTIN Certificate and PAN Card should also be enclosed with the tender papers, the original of which need to be furnished during verification. The above M.O.U. is not required in case of civil contractor having valid registration in H.T/ L.T./ M.V. electrical license with the same & style.

75. To qualify for award of the contract each bidder in its name should have satisfy the following criteria.

- (i) Achieved minimum annual financial turnover (In all class of civil class of construction works only) 60% of amount put to bid i.e., **13.76 Lakh** during last 5 years i.e., 2020-21 to 2024-25. Turnover certificate from chartered account mentioned in UDIN must be enclosed with the bid.
- (ii) The bidder should have satisfactorily completed at least 1/3rd of the estimated amount put to tender i.e., **7.65 lakhs in a single contract (composite type)** as similar nature of works in any one financial year during last five financial years. (*Similar nature of works mean civil works inclusive of electrical & P.H works*).

76. To qualify for award of the contract each bidder in its name should furnished an affidavit regarding current litigation, debarring expelling of bidder or abandonment of the work.

77. To qualify for award of the contract each bidder in its name should furnished an affidavit regarding authenticity of his license, GST, PAN Card, EMD/ APS and any other supporting documents furnished by the bidder in the tender.

(SEVENTY-SEVEN) Clauses only.

Sd/-
Executive Engineer (C)
Directorate of Fisheries,
Odisha, Cuttack.

TECHNICAL SPECIFICATIONS OF P.H. PORTION OF WORK

A. WATER SUPPLY & SANITARY INSTALLATIONS:

Materials of following standard manufacturers are to be used in the work. The contractor shall indicate, in the offer, the brand or make of the materials, for which the rates are quoted.

a. **Sanitary fixtures:**

b. To be of best quality vitreous ware of porcelain.

i. Indian water closet

ii. Foot Rests

iii. Wash Hand Basin

iv. Kitchen Sink, Hindware/ Parry Ware / Neycer/ ISI marked

v. Urinals

vi. Drain Board

vii. Odisha Pan

viii. European Water Closet & Low Level Flushing
Cistern.

b. **C.I. High Level Flushing Cisterns** : Sushila Industries Prabhat Iron Foundry / East India Steel / I.S.I. marked.

c. **H.C.I. Soil Waste Pipes:** : Confirming to I.S.I. 1729-1954, having I.S.I. Mark d.

C.P. Bath Room Fittings : Plaza/ Jaquar I.S.I. marked & confirming to-latest ISS

e. **Brass Fittings** : Shakti/Anupama /Luster/1.S.I.Marked f.

Gunmetal Valves : Anupama / Leader / B.S.I.S.I. marked

g. **G.I. Pipes (Medium Class)** : Manufactured by TATA / JINDAL / B.ST. having
I.S.I. Mark

h. **Galvanised Iron fittings** : I.S.I. marked C/R brand

Galvanised Iron fittings

i. **Paints** : Asian / Berger / Jonson/Confirming to I.S.S

j. **Cast Iron Manhole cover frame** : Sushila Industries / Prabhat Iron Foundry / East
India Steel make confirming to ISS 7.26

k. **Stone Ware Pipes & Fittings** : Manufactured by Odisha Ceramic Industries / Odisha
industries / Keshab Ceramic confirming to
I.S.S. Specification No.651 / 1980 {Grade A}

l. **P.V.C. (S.W.R.) & P.V.C (Rigid.) Pipe/Fittings** : Manufactured by the Supreme Industries Ltd.,
Bombay / Oriplast, Balasore Duroplast confirming to
I.S. Specification No. 4985/81 (Class IV)

B. BUILDING MATERIALS:**a. Bricks**

Bricks shall be of locally available best quality Fly Ash. Bricks shall be well compacted, uniform, grey or ash coloured, free from cracks and flaws, well shaped, uniform in size, homogeneous in textures and shall omit a clear metallic sound when struck, bricks shall have a minimum crushing strength 75 Kg/Cm^2 and shall not absorb water more than 20% by weight.

b. Cement Mortar

Mortar shall be well mixed to a uniform colour and consisting in the proportion as specified in the items of work. Sand shall be measured on the basis of its dry volume and the quantity shall be adjusted for bulking of damp sand. Cement shall be mixed, taking 50 kg. or 0.035 Cum. in volume only required quantity that can be consumed within 30 minutes of adding water shall be mixed at one time.

c. Cement

Cement should confirm to IS-269/IS-455

d. Sand:

Locally available best river sand medium size

e. Coarse Aggregates

The coarse aggregate shall be of hard granite stone and shall generally confirm to I.S. 389. Porous Course aggregate shall not be used. The aggregate shall be free from clay films and other adherent coatings. Aggregate containing clay films over the stone materials shall be thoroughly washed. The aggregate shall be from approved quarry and crusher broken. Course aggregates shall be composed of particles ranging between the sizes 2.36 to the maximum size as may be specified in the relevant item of work, within the range, the aggregates shall be well graded so as to produce a dense concrete.

f. Reinforcements:

Mild steel Round Bars, coiled twisted and deformed bars of steel of medium tensile strength will be used as reinforcement as per drawing and design and directions. Mild steel bars shall confirm to I.S.:226/1962 standard quality or IS:432/1966 - Grade-1. Black annealed wire (Not thinner than 24 gauge for tying the reinforcements shall be used)

TECHNICAL SPECIFICATION FOR SANITARY & PLUMBING WORKS

A. Sanitary Ware & allied fittings:

1. General

All Sanitary fixtures and their allied fittings, should be of first quality, manufactured by Hindustan Sanitary Ware / Parryware / Nycer, These should be approved by the Engineer-in-charge of the G.P.H. Wing before use.

2. Squatting Pattern W.C. (pan) (Odisha Pattern Closets):

The water closet shall be of vitreous China of specified size and pattern, with an integral flushing rim. It shall have the flushing inlet at the back. The Odisha closet should be of approved quality confirming to I.S.S.-2656 (Part-III).

The squatting type Indian Water Closet (Odisha 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 proportion, 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 leak proof.

3. Flushing Cistern

The flushing of the Indian water closet (Odisha Closet) shall be done by C.I. or Polyaterine High Level low-level porcelain valve-less syphonic flushing 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 32 dia O.I. flush pipe, made from G.I. Pipe (Light Quality) or 32 dia P.V.C. Pipe as specified in the tender schedule. The flush pipe with an offset should be fixed to wall by using C.I. Holder Bat Clamps. The capacity of the cistern should be 10 Ltrs. as per I.S.S. 15 Ltrs. In case of low-level cisterns. The Cistern shall be fixed on cast Iron or Rolled Steel Cantiliver Brackets (Bulltin type), which shall be firmly embedded in the wall, with C.C. 1.2.4. The Cistern shall be provided with 20mm dia P.V.C. 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 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 Cistern shall be painted with two coats of approved black bitumen paint. The Outer face of the 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 rate quoted for the flushing cistern. The inlet connection to the Cistern shall be made with 450 mm 1 cmg 15 mm dia P.V.C. Heavy type connection Pipe.

4. 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 as specified. Each basin shall be provided with one 15 mm dia C.R Brass Pillar Tap, 32mm dia C.R Waste, C.R. Chain and Rubber Plug, Unions, Joints, C.P Bottletrap cast 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) embedded and fixed in wall with cement concrete, 1.2.4. These brackets shall be painted to the required shade with two coats of approved synthetic enamel paint over a coat of priming.

The waste of the Basin shall discharge into a floor trap or Channel through bottle traps 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 Pipe, to discharge the waste to the aforesaid floor trap. The inlet connection to the Basin shall be made with 450mm Long 15mm dia Heavy type P.V.C. connection pipe.

5. 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 approved quality, make a brand, confirming to T.S.S, It shall be of one piece construction with integral combined overflow. The size of the sink and Drain Board shall be as specified.

Each Sink shall be provided with one 15mm dia C.P. brass, Bib Cock, long body, 40mm C.P. Waste with overflow C.P. Chain & 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 1.2.4. 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 P.V.C. Pipe jointed to the waste of the Sink with a Brass union nut.

6. Standing Urinals

The Urinals shall be flat pattern lipped front basin of required dimension of White 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 RV.C. Waste Pipe, which shall discharge into a channel of floor trap. The lip of Urinals shall be kept at 525mm from floor level, while fixing the Urinal on wall.

Where no. of Urinals are fixed in a line, the distance between the centres to centre of each Urinal shall be kept 750mm. and each Urinal should be separated from one to other by a partition plate. The centre to centre of partition plates shall be kept 750mm apart. The partition plate shall be of one-piece 25mm thick marble plates, cut to size and front corners rounded. The partition plates shall be embedded in wall with cement concrete and finished smooth. The bottom of the partition plate should be kept 350mm above floor level and top should be kept at 1250mm above floor level. The plates should project 600mm from wall surface. The width of the plates to be embedded inside the wall should not be less than 100mm. The thickness of the plates shall be minimum 25mm. For flushing the Urinals each Urinals shall be connected with one 20mm dia G.I. Pipe (Medium Class), One of this 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 the 25mm dia size Water Pipe Line fixed on the wall horizontal above the Urinals. In each 20mm dia flush pipe one 20mm dia cum-metal Gate valve, the water will flow to thermal 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 of Trap. One end of this Waste pipe shall be made a cup size to fit into the projected waste and tightened with screws.

7. Squatting Urinal Plates

The Urinal Plates shall be of White Glazed Vitreous China with integral flushing rim of size 450 X 350mm of approved make and brand as specified. There shall be white vitreous channel with stop and outlet pieces in 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 up to 200mm from floor level just at the centre of each plate, in which one 20mm dia Gate Valves is fixed at 350mm above floor level. At 1200mm height, the 20mm dia flush pipe shall be divided into two branches shall be taken downward and connected to the inlets of the urinals plate 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 plates shall be kept 750mm.

The partition plates shall be of one-piece marble plate, 25mm thick, cut to sizes and front corners rounded. The plates are to be embedded in wall with cement concrete and finished smooth. The bottom of the partition plates shall be kept flushed to urinal top level and the top level of partition plate shall be kept at 1200mm from the urinal plate top and the projection from the wall shall be 600mm. The width of the plate to be embedded inside the wall should not be less than 100mm.

B. Soil and Waste Pipes and fittings

1. H.C.I. Pipe Fittings

The Cast iron Soil, Waste and design pipes (spigot & socket joints) shall be of make and brand as specified (under specification of materials), confirming to I.S.S. 3989-1970 and ISI marked with approved clamps are to be used. The pipes and fittings shall be free from cracks, laps, pinholes, and other imperfection and carefully cited. The access door fittings shall be designed and made so as to avoid dead space in which filth may accumulate and door shall be provided with 3mm thick rubber insertion packing when closed and bolted.

WEIGHT OF HCI PIPES

2. Dia of Pipe in MM	Thickness in mm	Length of pipe & width piece	
		1.8 Mtr. D/s	1.8 Mtr.
50 mm	5 mm	16.00 Kg.	15.00 Kg.
75 mm	5 mm	13.83 Kg.	16.52 Kg.
100 mm	8 mm	24.00 Kg.	22.00 Kg.
150 mm	8 mm	26.70 Kg.	31.82 Kg.

Tolerance 10%

3. The jointing should be done with pig lead confirming to I.S. 782-1966 - grade 99.94.

The spigot and of Pipes and Fittings should enter into the socket end. The annular

space shall be packed with spun yarn gasket, compacted so as to leave a depth for receiving required quantity of lead in a continuous pouring from ladder. After pouring lead in the joints in full, caulking is to be done three times round with the caulking chisels, so that the joints may be sealed with lead. The depth of lead in a point should be 35mm and the rest depth of the joint should be packed with spun yarn Gasket.

4. Requirement of lead and Gasket cement for jointing H.C.I. Pipes (Each Joint)

Dia of pipe in mm	Lead in Kg.	Gasket in Kg. (Same for lead & cement joint)	Cement Kg.
100	1.2 Kg.	0.13 Kg.	0.12 Kg.
50	0.36 Kg.	0.06 Kg.	0.06 Kg.

5. The inside of the pipes and fittings shall be well coated with special tar or bitumen solution of approved quality. Where the pipe and fittings are laid below the ground, the outer surface of the pipes and fittings shall also to be painted with two coats of black anticorrosive paint of approved quality. On completion of the work, the exposed pipes and fittings are to be painted with two coats of synthetic enamel paint of approved colour & quality over a coat of red oxide primer. The cost of paint should include in the rates.
6. Soil pipes for ventilation Is to be connected to the sewer at its floor and without a trap and be carried to such a height, at least above roof level, to prevent damage to health by commission of foul air, The pipe shall terminate as open and protected by a cowl.
7. The waste water pipe shall be connected with the nearest yard gully or a surface drain.
8. The traps should be of hard cast iron and should have a water seal at least 50mm deep.
9. All the soil and waste pipes and fittings, after laid and fixed shall be smoke tested, to the entire, satisfaction of the Engineer-in-charge. The Cost of testing is to be included in the offer. For smoke-test the materials usually burat greases cotton waste, which gives out a clear pungent smoke, which is easily detected by sight and smell. Smoke shall be pumped to the drains from the lower end from a smoke machine, which consists of lower, and burner.

a) P.V.C (S.W.R.) & P.V.C. (Rigid) Pipes & Fittings

The P.V.C. (S.W.R.) and P.V.C. (Rigid), soil Waste & Vant Pipes (Spigot & Socket, & couples joints), shall be of make & brand as specified (Under Specification of materials) confirming to I.S.S., B.S.S. & DIN are tube used.

The main specification of P.V.C. Soil & Waste pipes and fittings are as below.

- | | | |
|--|--------------------------|---|
| a) Materials | : | Un-plasticized Poly Vinyl-Chloride (UPVC) |
| b) Color | : | Grey |
| c) Dimensions | | |
| i. Diameter | : | Fittings - 75mm/110mm/63mm & 63mm |
| Pipes | : | 75mm, 110mm, on lengths of 3.or 6 mtr |
| d) Wall thickness | : | Fittings - Minimum 3.2mm at any port |
| Pipes | : | As per application |
| For Rainwater | : | 75mm-1.8. to 2.2.mm, 110mm-2.5. to 3mm |
| Waste & Soil | : | 75mm -1.8 to 2.2mm, 110mm -2.5 to 3 mm,
63mm |
| Underground drainage
with light / NIL –
Traffics | : | 110mm - 2.5 to 3mm |
| Light / NIL in Heavy Traffic | : | 110mm 3.7 to 4.3mm |
| e) Standard Confirming to Attributes | Confirms to Standard No. | |
| i. Fittings & Wall | : | DIN 19534 I.S.7834 - PVC (Rigid) |
| B.S.4514, DIN | | |
| 10531 thickness | | |
| ii. Pipe Wall thickness | : | IS 4905 |
| iii. Rubber ring | : | IS 5382 |

- iv. Fitting dimensions : DIN 19531 - P.V.C., DIN 19534 – S.W.R. IS - 7834 V.C. (Rigid)
- v. Pipe Dimensions : IS 4985

b. Laying instructions & Jointing Procedure

1. Jointing of P.V.C. (S.W.R.) Pipes & Fittings

Clean the outside of the pipes spigot and the inside of the sealing groove of the fitting. Apply the rubber lubricant, to the spigot end, sealing ring and pass the spigot end into the socket, containing sealing ring, until fully homed. Mark and position of the Socket edge with pencil on the pipe, then withdraw the pipe from the socket by approx. 10mm towards thermal expansion gap.

2. Fixing of the Pipes and fittings on wall surface

P.V.C. pipes both (S.W.R.) & (Rigid), fixed on wall surface, are to be supported by P.V.C. pipe clips, specially made for these pipes, with horizontal runs, the pipe clips should be spaced at intervals of more than 10 times the outside diameter of the pipes. In vertical lines the clips are to be spaced at intervals of one meter to a maximum of two metres according to pipe diameter.

3. Jointing of P.V.C. (Right) Pipe Fittings

Clean the Outside of the pipes and inside of the socket of a fitting of the inside of the couplers (where 2 plain ended pipes are jointed) of. Apply solvent cement solution, evenly and smoothly on the outer surface of the pipe end and inside surface of either the coupler of the socket and pass the pipe end into the socket of the fittings. Up to full depth of socket. In case of jointing 2 plain-ended pipes 1st. push the coupler up to half depth on the end of one pipe and the outer half of the coupler should be pushed to the end of other pipe and thus, both pipes are jointed.

4. Fixing of P.V.C. pipes and Fittings through holes of Walls or Chajja of roofs etc.

The Wall/concrete slots should allow for a stress free installation, Pipes and fittings to be inserted into the slots, without a cement base, have to be applied first with a thin coat of P.V.C. Solvent cement, followed by sprinkling of dry sand (medium size). Allow it to dry. This process gives a sound base for cement concrete fixation, around the pipes/fittings while mending the damages.

5. Anti-syphonage Pipes

All the anti syphonage pipes and fittings to be used are of 63mm. If these are not available under the items of P.V.C. (S.W.R.) materials, 63mm pipes and fittings, manufactured under P.V.C.(right) materials can be used, since the raw materials for both is same.

- 6.** All traps should have a minimum water seal of 50mm as per I.S. 5329 and IS 2556 (Part XIII). Where anti syphonage connection is required, the traps to be supplied and used should have a 50mm anti syphonage gend horn on the outlet side. All the Traps used with the closets, should be of the size 125mm X 110mm i.e. Inlet (Socket end) of 125mm & outlet (spirit end) of 110mm only.

7. Installation of Water Closet

Determine the correct Location of the P/S Trap & set on a firm base, relative to the floor finish by pouring concrete on a slab. Bedding can be carried out by pouring concrete around the trap, ensuring that the traps outlet is left clear of concrete. Place the W.C. Connector ring to the socketed end of 125/110mm R/S trap. Apply rubber lubricant on W.C. Connector ring as well as outer side of water closet (connection point) and now complete the joint by pushing the W.C. to home of 125mm socket of the trap.

8. P.V.C. (Rigid) Pipes and Fittings

63mm (O.D.) P.V.C. Pipes to be used for these work either in anti syphonage system or elsewhere, should be of “Quick Fit” Pipes Class 2 (4kg. F/Cm²), Quick Fit, Pipes have one end socketted. The P.V.C. (Rigid) fittings, such as 63mm elbow, 63mm equal Tees 110mm x 63mm reducer etc. used in the work, should be of injection-moulded fittings.

- 9.** One -jointing rubber ring will be available, with each P.V.C. (S.W.R.) pipe and fitting and hence, the cost of therein will not be added in the joint.

10. Measurement

All pipes shall be measured not/length as laid or fixed and shall be measured over all fittings such as bends, junctions, traps etc. The length shall be taken along the counter line of the pipes and fittings. Fittings will be counted extra over.

- 11.** Before fixing and painting, the pipe shall be tested hydraulically to pressure Q.4Kg/Cm² for pipes under I.S.-1729/1964 and at a pressure 0.7 Kg/Cm² for pipes under I.S. 3989-1970 without showing any sign of leakage, sweating of or her defect of any kind. The pressure should be applied internally and shall be maintained for not less than 15 seconds.

c) **Water Supply Pipes and Fittings**

1. **Materials.**

All galvanized Iron Pipes are to be of mild steel continuous welded, screwed tubes, medium quality conforming to I.S.S. and bearing ISI Marks manufactured by reputed Firms and approved brands as specified. The pipes shall conform to LS.1239 (Part-I) -1975. All G.I. Fittings shall be of 'R' Brand manufactured by M/s. R.M. Engineering Ltd., Ahmadabad and 'C' brand manufactured by Present Engineering works or equivalent best quality.

2. **Laying of Pipes**

The lay out of the mains and service pipe set 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 Engineer In-charge, before taking up the work.

3. 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 for the pipes shall be given as below :

Dia of Pipe	Width of Trench	Depth of trench
15 mm to 50 mm	300 mm	600 mm
65 mm to 100 mm	450 mm	750 mm

The pipes shall be laid on a layer of 75mm thick sand and filled up with sand up to 75mm above pipes and the remaining portion of the trench shall then be filled up with proper ramming as described in "GSTIN 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 pipe of M.S./G.I., as approved by the Engineer-in-charge. The rate should include such a situation.

4. 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	2.50m	2.50m	2.50m	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 & roof slabs etc. the holes shall be made by filling with chisels or jumper and not by dismantling the brickwork or concrete. After fixing, the holes shall be made good with cement concrete 1:2:4 and properly finished with C. 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 3 mtrs. for long horizontal lines and inside the GSTIN / Kitchen etc.

5. 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/Cm^2 . The test pressure should maintain without loss of for at least half an hour.

6. **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.

7. **Measurement**

The length shall be measured in running meter. Correct to centimetre 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, Cooks, Valves, PVC connection pipes etc.

8. Ball Valve

The ball valve shall be high or low pressure class as stipulated in the Tender Schedule and shall confirm 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 gun-metal and the float for low pressure polyethylene and for high pressure in copper. Each and every ball valve while in closed position shall withstand and internally applied hydraulic pressure of 20 Kg/Cm^2 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/Cm^2 and a low pressure ball valve against a test pressure of 5.3 Kg/Cm^2 .

Polyethylene floats shall be watertight and non-absorbent and shall not contaminate water and with do 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.

9. Ferrule

The ferrules for connection with C.I. main shall generally confirm to I.S. 2692-1964 and shall be of nominal bore as specified. The ferrule shall be fitted with 3 screw and 1 plug or valve capable of complete cutting off the supply to the connected pipe as and when required. For fixing the ferrule, the C.I. main shall be drilled and tapped during non-supply hour at 45 to the connected Pipe as that when required. The ferrule must be so fitted, that no portion of the sunk shall be left projecting within the main on which it is fitted. After the ferrule is connected, one C.I. bell mouth cover or with bricks (as specified) shall be kept over the ferrule to cover the ferrule to protect it and the cost thereof is to be included in the item, even if there is no mention.

10. Non-return Valve (Check Valves)

The non-return valve shall be of Brass or Gunmetal and shall be of horizontal or vertical flow type and of the size as specified and confirm to I.S. 7810-1959 and I.S. 778-1957. The approximate weights of the valves are given below.

Dia in mm	Horizontal type (in Kg)	Vertical type (in Kg)
15	0.30	0.25
20	0.55	0.25
25	0.90	0.75
32	1.25	0.90
40	1.70	1.20
50	2.90	1.45
65	5.25	2.15
80	7.70	4.10
	± Tolerance 5%	

11. Foot Valve

Foot valve is generally placed at the lower end of the suction pipe of the centrifugal pump to prevent the suction pipe from emptying. On vertical non-return valve may also be fixed in place of foot- valve. The foot valve shall confirm to I.S.038-1967.

12. Water meters (Domestic types)

Water meter up to 50mm nominal size shall confirm to I.S.-779-1968. The meter body shall be of bronze/ Gun-metal and marked to read in liters complete with registration box and lid. The water meters shall be provided with Strainers. Strainers shall be of material, which is not susceptible to electrolyte, clean and shall be fitted on the inlet side of water meter. It shall be possible to remove and clean the strainer and not permit disturbing the registration box. The offer should include the same. The water meters shall bear ISI Mark.

13. Bibcock & Stopcock

These shall conform to I.S.781-1967 and bear ISI Mark. The bibcock 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 cock shall open in anti-clockwise direction. The stopcocks should be of C.P open type/concealed type/angle valves type as specified in tender schedule. Bibcock should be also C.P Brass bibcock.

14. 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 confirming to I.S, 780-1960, opening Full way and of the size as specified.

Dia in mm	Flanged End Valves in Kg	Screwed End Valve in Kg
15	1.021	0.56
20	1.503	0.68
25	2.498	1.07
32	5.232	1.55
40	6.082	2.26
50	6.691	3.23
65	10.149	6.84
80	13.281	8.84

15. Gun Metal Full way Valve

This shall be of the Gun-Metal fitted with wheel and shall be of Gate-Valve type opening full way. This shall confirm to I.S, 778-1971. Class I. The Valves should bear ISI Mark.

TECHNICAL SPECIFICATION FOR STONEWARE PIPE ETC**1. Stoneware Pipes (Materials)**

The S.W. pipes & fitting should be of Grade 'A' confirming to I.S 651/1965. The pipes shall be sound, free from visible defects such as fire crack or hair crack and flow or blister. The pipes shall give a sharp clear line when struck with a light hammer and should be perfectly salt glazed.

Internal dia of pipe in mm.	Thickness of the Barrel in mm.	Weight of each pipe in Kg.
100	12	14
150	16	23
200	17	33
230	19	44
250	20	52
300	25	79
350	30	100
400	35	125
450	38	147

The length of pipes is 600 mm exclusive of the internal depth of socket.

2. GSTIN of Trench for laying Sewer Pipes

The trenches for the pipes shall be GSTIN to the lines & level as directed. The bed of the trench shall have to be evenly dressed throughout from one change of grade to the next. The gradient is to stout by means of sight rails and boning rods and required depth be GSTIN at any point. The depth of the trench shall not less than one meter, measured from top of the pipe to the surface of the ground under roads and not less than 0.75m elsewhere. The width of the trench shall be the nominal diameter of the pipe plus 350m. The bed of the trench if in soft or made up earth, shall be well watered and rammed before laying the pipes and the depressions if any shall be properly filled with sand and consolidated in 200mm layers. Depending on soil condition, piling may even be necessary if so desired by the Engineer In- charge. If rock is met with, it shall be removed 150 mm below the level of the pipe and the trench will be refilled with sand and consolidated.

The GSTIN materials shall not be placed within One Mtr. or half of the depth of the trench whichever is greater from the edge of the trench. The trench shall be kept free from water. Shoring and shuttering shall be provided wherever required. GSTIN below water level shall be done after dewatering the trenches.

After the GSTIN of the trench is completed, foundation of cement concrete 1.4.8 in hard granite metal (size 40mm) shall be laid with proper level all along under the length of the pipe with launching on all around concrete as per drawing.

3. Laying, Jointing, haunching of the Pipes and fittings.

Drain Pipes (S.W. pipe & other pipes used for drain and Sewer) shall be laid in straight lines and to the even gradients as shown in the layout drawings. The socket and of the pipes shall face stream. Adequate care shall be exercised in setting out and determining the level of the pipes and the contractor shall provide suitable instruments, templates, sight rails, boning rods and other equipments necessary for the purpose. In the case of pipes with joints to be made with loose collars, the collars shall be slipped on before the next pipe is laid. In those joints, a tight ring of twisted tarred jute soaked in cement mortar filling to ensure proper alignment and prevent. Cement entering the pipes, Cement compound joints is to be finished with proportion 1.1 with 45 beveling. The joints are to be kept wet with wet bag until the same are properly set with. The cement mortar joints shall be cured at least for 7 (Seven) days.

In the case of S.W. Pipe joints (socket & spigot), they should be caulked first with tarred jute (Spun) of required diameter, almost quarter depth of the socket, after which cement mortar 1:1 is pushed in with wooden chisel and finishing beveled at outside at 45 degree. Instead of jute of hump rubber gasket of proper size may also be used. The whole joint must be cured for not less than three days. In case of pipes less than 250mm dia, joints should be made at ground level with three pipes at a time and for larger ones two pipes at a time and after curing they should be soiled in foundation with the help of the ropes. All pipes should be properly launched with cement concrete 1.3.6 with washed gravel where the pipes are crossing the drain or all round concrete 1.3.6 with washed gravel is to be done to 150 mm thick over the barrel of the pipe. The whole of the drain work shall be tested when laid, and at the completion of the contract, to the satisfaction of the Engineer-in-charge and shall be retested if necessary until found satisfactory. The test shall be made by means of water under pressure at the highest point of the Section under test and providing an air pipe at the lower end of the line. Maximum head of 5 (five) feet (1.5m) must be maintained.

4. GSTIN and refilling.

GSTIN for drain and pipe trenches shall be straight and to correct depth and gradient. The trench bottom shall be of required width as per specification to allow working space for pipe jointing.

GSTIN materials shall be dumped away from the site as directed by Engineer-in-charge. Suitable precautions are to be taken to prevent in flow of water into the GSTIN area, during construction.

The contractor at his own expense shall pump out or otherwise remove any or all water which during the continuance of contract may be found in the GSTIN trenches to keep the trench clear of water during the work under progress. The pipeline shall not be refilled and covered, until the line therein has been passed and tested.

5. Buried Services

All pipes, cable mains and other services exposed by the GSTIN shall be effectively supported by timbering or other means for which no extra payment will be allowed. The contractor shall be responsible for any damage occurring to buried services and make good the same at his own cost to the satisfaction of the Engineer-in-charge.

6. Trench condition

Where a trench is GSTIN and refilled after laying the pipe, settlement of the earth in the refilled trench take place. The filling above the top of pipe, settles relatively, more than the sides of the trench, thereby developing frictional resistance. The contractor is required to take special precaution against this, while refilling the trenches. Procedure for backfilling as stipulated earlier should be strictly followed.

7. Inspection Chambers/Manholes

At every change of alignment, gradient or diameter of a drain there shall be a manhole or Inspection Chamber. The maximum distance between manhole chamber shall be 30 metres for the line laid straight.

All manhole and inspection chamber shall have internal dimension as shown in drawing and B.O.Q. The depth of invert shall be fixed to the gradient. The foundation for Manhole shall be 175mm thick & with cement concrete 1.3.6 in hard stone metal / granite metal of 40mm size. The concrete shall project 150mm beyond the external faces of the brickwork.

The brick masonry shall be done in cement mortar in the proportion of 1:4 and thickness of the brick wall should be 250mm thick up to 1200mm depth from Ground Level and beyond that the wall thickness shall be maintained 375mm. The inside surface of the walls of the chamber, shall be finished with cement plaster 1.3 and outside with cement pointing 1.3. In addition to this, the inside surface should also be provided with cement punning.

On the top of base concrete channeling on C.C. 1.2.4 with granite chips is to be done keeping the diameter equal to the dia of drain pipe and depth equal to half of the dia of pipe. The channel, 'should be done longitudinally at the centre, connecting both the ends of the pipe. The channel is to be hunched up with concrete 1.2.4 with hard granite chips of size

12mm sloping upwards from the edge of channel to meet the side of chamber at gradient of 1:6. The channel and benching are to be finished smooth and cement mortar 1.3 and punning unless it is unavoidable. The branch should deliver sewerage in the Manhole in the direction of main flow and the junction must be made with care so that the flow in the main is not impeded. Channels for drains coming from the side of the Manhole Chamber, shall be curved to meet the main drainage channels.

The Manhole and Inspection Chambers shall be covered with R.C.C. cover slab of thickness 100mm to 150mm according to the requirement at site. One C.I. Manhole cover of diameter and weight as stipulated in the tender schedule shall be fixed, on the cover slab. Unless otherwise mentioned the C.I. Cover and Frames and shall conform to I.S. 1726/1960. Heavy duty covers etc., under heavy vehicular traffic condition and capable of bearing wheel loads up to 11.25 tons, are to be used and medium duty under light type wheel traffic loads and light duty for domestic premises are to be used. Covers and Frames shall be clearly cast, double water seal type and they shall be free from all and sand holes. The cover shall be gas tight and water tight with proper water-seal. The C.I. Cover and frame shall be coated with two coats of black bituminous paint. The frame of Manhole cover shall be fixed on the slab while the slab is cast. R.C.C.M.H. covers of 50cm dia and 100mm thickness shall be fitted in line of C.I.M.H. cover if stipulated in the bill of quantity of the tender schedule.

8. Gully Trap Chamber

The size of chamber for 100mm HCI yard gully shall be of 250mm X 250mm (Inside). Foundation with 100mm thick cement concrete 1.3.6 with hard granite metal of size 40mm from outer surface of wall and Brick work in cement mortar 1.4, 125mm thick, depth up to 600mm maximum. The finishing of masonry wall both inside and outside should be done in cement mortar 1.4 cement punning should be provided on the inner surface the trap should be burried in cement concrete 1.2.4 in H.G. chips up to the mouth and one hinged C.I. Grating of size 300mm x 300mm are to be fixed on the top of mouth of Gully trap to arrest rubbishes shall be provided. The foundation, should project 75mm from outer.

9. Kota/ Marble Stone flooring

The Kota/Marble stones shall be of thickness specified but not less than 20mm and of uniform with edges absolutely square & straight. They shall be laid in Cement Mortar (1.4) over masonry or concrete base. The sides of the stones shall be arranged to butt against each other truly so as to came the joints practically invisible and certainly not more than 0.8mm in width anywhere. The joints shall not be filled with mortar but may afterwards be grouted with neat white cement mixed with matching colour pigment. When the floor has completely set, it, should be polished with pumice stone and finally with pads of felt.

10. Glazed tile dado

The glazed porcelain tiles shall be of approved size and thickness 5mm to 6mm with edges absolutely straight & surface accurately plain. They shall be fixed in 6mm. thick cement mortar 1.3 using cement slurry over pre-cement plastered base. The sides of the tiles shall be arranged to but against each other truly so as to make the joints practically invisible. However, the joints may be granted with white cement mixed with colouring materials to match the tiles and neatly cleaned leaving no trace of excess grouting materials. The tiled surface and edges should be perfectly vertical and straight. The corner points must be normally right angled unless the site condition demands otherwise.

**ADDITIONAL APPENDIX TO BILL OF QUANTITY
(For P.H. Items of Work)**

1. The quantities of items mentioned in the tender schedule may increase or decrease during execution of works but the contractor will complete the work as per his tendered rates in accordance with the instruction of Engineer in charge of G.P.H. wing.
2. **Specification:** The standard PHD and PWD specification will be followed for execution of work. During the course of execution of work, the instructions of the Engineer in charge shall be final and binding.
3. The Sales Tax element should not be added to the analysis of rates and the previous practice should be followed as per the Works Department letter No.IIT.22-89-18170 dt.18.7.1989.
4. There should be no clause either in the tender or in agreement for payment of any additional claim on account of Sales Tax on completed works which will be deemed to be recovered by existing omnibus stipulation as per the works Department letter No.TIT 22/89-18170 dt.18.7.89.
5. It is the responsibility of the Contractor to arrange watch and ward to the installations until testing commissioning and handing over for which no extra payment towards watch and ward will be paid,
6. The contractor shall maintain a separate site order book for P.H. portion of work.
7. The P.H. portion of work shall be open for inspection by the authorities of P.H. Circle (R&B) Odisha, Bhubaneswar and the higher authorities and instructions imparted during the course of Inspection should be binding on the contractor.
8. Materials not covered by any of the above categories of items in the bill of quantity have to be approved by the competent authorities before utilizing the 'same in works. In such event, the payment of such item will be made as per actual on due approval by the competent authority.
9. All materials required for the work shall be supplied by the contractor as per standard specifications appended with due approval by the Engineer in charge of G.P.H. Wing.
10. In case the materials as per make specified are not available, the materials of equivalent make and as per I.S. Specifications or of best quality when not covered by I.S. Specifications can be utilized on prior approval of concerned S.E./ E.E., GPHD (R&B) Circle/Division or the officers duly authorized. It is binding on the part of the contractor to use such items of materials which are available in the Departmental store and in such case the deduction from the bills will be made at stock issue rates.

Bidder(s) is/are required to submit the information in the following Schedules

SCHEDULE – A

CERTIFICATE OF NO RELATIONSHIP

I/We hereby certify that I/We* am/are* related / not related (*) to any officer of the rank of Assistant Engineer & above and any officer of the rank of Assistant / Under Secretary and above of the F& A.R.D. 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

Signature of the Bidder

Date:-

SCHEDULE – B

**WORKING EXPERIENCE
LIST OF SIMILAR NATURE OF PROJECTS IN PROGRESS
(LAST FIVE FINANCIAL YEAR FROM 2020-21 TO 2024-25)**

Name of Employer	Name of location and name of work	Contract price in Indian Rupees/ Agreement No.	Major Items of works	Date of starting the work as per Agreement	Stipulated date of completion of the work as per Agreement	Revised target date of completion of the work, if any	Reasons for slow progress, if any, with the updated billing amount
1	2	3	4	5	6	7	8

Note: The above information is to be certified by the Engineer in Charge / Employer not below the rank of Executive Engineer.

Signature of the Bidder
Date.....

SCHEUDLE – C

**WORK EXPERIENCE
LIST OF SIMILAR NATURE OF PROJECTS EXECUTED
(LAST FIVE FINANCIAL YEAR FROM 2020-21 TO 2024-25)**

Name of Employer	Name of location and name of work	Contract price in Indian Rupees/ Agreement no.	Major Items of works	Date of starting the work as per Agreement	Stipulated date of completion of the work as per Agreement	Revised target date of completion of the work, if any	Reasons for slow progress, if any, with the updated billing amount
1	2	3	4	5	6	7	8

Note: The above information is to be certified by the Engineer in Charge / Employer not below the rank of Executive Engineer.

Signature of the Bidder
Date.

**INFORMATION REGARDING CURRENT LITIGATION, DEBARRING EXPELLING
OF BIDDER OR ABANDONMENT OF WORK BY THE BIDDER**

1. a) Is the bidder currently involved in litigation relating to the works. Yes / No in any
- b) If yes: give details:
2. Has the bidder 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 bidder 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 summarily be rejected.

Signature of the Bidder

Date.

AFFIDAVIT

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 authorized (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 Bidder)

Name of Firm

Date:

RELATIONSHIP DECLARATION

To,

The Tender Inviting Officer,

Subject: (Name of the Work)

Reference: (Bid reference number) Sir,

Pursuant to clause 2 of the ITB, it is to inform that I have relative(s) employed as an Officer in the rank of an Assistant Engineer/Under Secretary under the _____ Department. His (Their) details are as follows.

Relationship:

Name:

Designation

Office

Address

Pursuant to clause 2 of the ITB, I am to submit herewith the names of persons who are working under my firm having near relatives to any gazetted officer in the rank of an Assistant Engineer/Under Secretary in the Department.

Sl No	Name of my employee and his designation in the firm	Presently working at	Details of his relatives working in the Department
			Relationship Name: Designation Office Address
			Relationship Name: Designation Office Address

I am also duty bound to inform the relationship of any subsequent employment with any gazetted officer in the rank of an Assistant Engineer/Under Secretary in the _____ Department. I am aware that any breach of this condition would render my firm liable for penal action for suppression of facts.

Yours Sincerely

Signature of the Bidder.

Date:-

PRICE BID**BILL OF QUANTITY FOR THE WORK**

**REPAIR & RENOVATION OF FISH FARM OFFICE BUILDING,
STORE, HATCHERY AT GOVT. FISH FARM, BARKOTE IN
DEOGARH DISTRICT**

ESTIMATED COST PUT TO TENDER: ₹ 22,92,073.00

**OFFICE OF THE EXECUTIVE ENGINEER [CIVIL]
DIRECTORATE OF FISHERIES, ODISHA
CUTTACK**

BILL OF QUANTITY

NAME OF WORK: REPAIR AND RENOVATION OF FISH FARM OFFICE BUILDING, STORE, HATCHERY AT GOVT. FISH FARM BARKOTE IN DEOGARH DISTRICT

SL NO.	ITEM OF WORK	QTY.	UNIT	ESTIMATED	
				RATE	AMOUNT
1	Dismantling and removing cement concrete including stacking the useful materials for re-use and removing the debris with 50.00m lead including cost of fall and complete including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.	10.88	Cum	₹ 858.60	₹ 9,341.56
2	Dismantling & removing old tiled flooring including removing the base coarse and stacking the useful materials for re-use and removing the debris within 50 M initial lead including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.	4.93	Sqm	₹ 144.20	₹ 710.90
3	Dismantling & removing old tiled cladding from walls including racking out joints 12mm deep and stacking the useful materials for re-use and removing the debris within 50 M initial lead including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.	18.69	Sqm	₹ 75.00	₹ 1,401.75
4	Dismantling 2.50 cmst thick grading concrete from roof slab including cleaning the roof surface and lowering and removing the debris with 50.00m lead including cost of fall and complete finished in all respect . including cost of fall and complete finished in all respect . including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.	68.40	Sqm	₹ 129.80	₹ 8,878.32
5	Removing old lime or cement plaster from walls including racking out joints 12 mm deep including stacking the useful materials for re-use and removing the debris with 50.00m lead including cost including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.	180.50	Sqm	₹ 57.70	₹ 10,414.85
6	Earthwork in all kinds of soil for excavation of foundation with initial lead and lift including dressing and leveling the beds etc. complete including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.	49.24	Cum	₹ 299.50	₹ 14,747.38

7	Filling foundation & Plinth with sand well watered and rammed including all cost and complete including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge.	44.97	Cum	₹ 1,647.50	₹ 74,088.07
8	Providing and laying Plain Cement Concrete of proportion (1:3:6) in foundation and floors using 4 cm size black hard crusher broken granite stone metal and screened washed sharp sand for mortar of approved quality and from approved quarry including hoisting, lowering, laying concrete, ramming, watering and curing etc. complete to required levels laid in layers not exceeding 15 cm. thick in each layer including cost, conveyance, royalties, taxes of all materials and cost of all labours, labour cess, T&P etc required for the work including shoring, shuttering and dewatering if required including hire & running charges of all machineries required for the work etc. complete as directed by the Engineer-in-charge.	41.47	Cum	₹ 6,820.70	₹ 2,82,854.42
9	Cement concrete (1:2:4) with 12mm sizeHG crusher broken chip including cost of bending work and cost of M.S rod and cost of all labour, labour cess, all T&P required for the work etc. complete as directed by the Engineer- in-Charge.	5.42	Cum	₹ 8,418.50	₹ 45,628.27
10	Fixing vitrified tiles in floors treads or steps and landing on 20 mm thick bed of CM (1:4) [1 cement : 4 sand] jointed with neat cement slurry mixed with pigment to match the shade of tile including rubbing and polishing complete including cost of all and complete finished in all respect including cost, conveyance, royalty, taxes of all materials, labour, labour cess, T&P etc. required for the work etc. complete as per the direction of the Engineer-in-charge.	104.11	Sqm	₹ 1,224.60	₹ 1,27,493.10
11	Fixing vitrified tiles in dado skirting and risers of steps on 12 mm thick C.P (1:3) including cost of all and complete finished jointed with neat cement slurry mixed with pigment to match the shade of tile including rubbing and polishing complete including cost of all and complete finished in all respect including cost, conveyance, royalty, taxes of all materials, labour, labour cess, T&P etc. required for the work etc. complete as per the direction of the Engineer-in-charge.	7.36	Sqm	₹ 1,335.00	₹ 9,825.60

12	Fixing Ceramic tiles in floors treads or steps and landing on 20 mm thick bed of CM (1:4) [1 cement : 4 sand] jointed with neat cement slurry mixed with pigment to match the shade of tile including rubbing and polishing complete including cost of all and complete finished in all respect including cost, conveyance, royalty, taxes of all materials, labour, labour cess, T&P etc. required for the work etc. complete as per the direction of the Engineer-in-charge.	4.93	Sqm	₹ 1,008.30	₹ 4,970.91
13	Fixing Ceramic tiles in dado skirting and risers of steps on 12 mm thick C.P (1:3) including cost of all and complete finished jointed with neat cement slurry mixed with pigment to match the shade of tile including rubbing and polishing complete including cost of all and complete finished in all respect including cost, conveyance, royalty, taxes of all materials, labour, labour cess, T&P etc. required for the work etc. complete as per the direction of the Engineer-in-charge.	7.24	Sqm	₹ 997.50	₹ 7,221.90
14	Providing 16 mm thick cement plaster over brick work with cement mortar of mix (1:6) with screened and washed sharp sand for mortar and finished smooth to the rough surface of walls in all heights after racking out joints including watering and curing, rounding of corners, providing grooves where ever necessary with cost, conveyance, royalties and taxes of all materials with cost of all labour, labour cess, T&P, and scaffolding required for the work etc. complete in all respect as directed by the Engineer in charge.	67.48	Sqm	₹ 292.20	₹ 19,717.65
15	Providing 12 mm thick cement plaster over brick work with cement mortar of mix (1:6) with screened and washed sharp sand for mortar and finished smooth to the rough surface of walls in all heights after racking out joints including watering and curing, rounding of corners, providing grooves where ever necessary with cost, conveyance, royalties and taxes of all materials with cost of all labour, labour cess, T&P, and scaffolding required for the work etc. complete in all respect as directed by the Engineer in charge.	46.03	Sqm	₹ 204.90	₹ 9,431.54
16	Providing 6 mm thick cement plaster over RCC surface brick work with cement mortar of mix (1:4) with screened and washed sharp sand for mortar and finished smooth to the rough surface of walls in all heights after racking out joints including watering and curing, rounding of corners, providing grooves where ever necessary with cost, conveyance, royalties and taxes of all materials with cost of all labour, labour cess, T&P, and scaffolding required for the work etc. complete in all respect as directed by the Engineer in charge.	11.70	Sqm	₹ 220.70	₹ 2,582.19

17	Finishing surface of walls with cement based wall putty [water based] of approved make and finished smooth and even surface to receive painting including cost of scaffolding staging charges with cost including cost of scaffolding, staging charges with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge.	145.90	Sqm	₹ 91.10	₹ 13,291.49
18	Finishing plastered surfaces of walls with wall primer and making smooth to receive painting including cost of scaffolding, staging charges with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge.	458.84	Sqm	₹ 38.00	₹ 17,435.92
19	Finishing plastered surfaces of walls with Plastic Emulsion Paint of approved shade on new work two coats to give an even shade including cost of all and complete including cost of paint with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge.	326.24	Sqm	₹ 108.90	₹ 35,527.53
20	Finishing plastered surfaces of walls with weather coat paint of approved shade on new work two coats to give an even shade including cost of all and complete including cost of paint with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge.	107.45	Sqm	₹ 89.40	₹ 9,606.03
21	Painting two coats over a coat of primer over new steel work including cost of scaffolding, staging charges with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge.	11.40	Sqm	₹ 264.60	₹ 3,016.44
22	Providing 2.5 cm thick grading concrete (1:2:4) using 12 mm size HGCB Chips on new work including hoisting, lowering, laying concrete, ramming, watering and curing etc. complete to including cost, conveyance, royalties, taxes of all materials and cost of all labours, labour cess, T&P etc required for the work etc. complete as directed by the Engineer-in-charge.	68.40	Sqm	₹ 865.50	₹ 59,200.20
23	Supply, Fabrication, Erection of MS Structural Steel member as per drawings & direction of engineer in charge including cost of scaffolding, staging charges with cost, conveyance, taxes of all materials, cost of all labour, T&P, labour cess complete as per the direction of the Engineer-in-charge.	3.18	Qtl	₹ 13,151.40	₹ 41,821.45

24	Supplying , fitting and fixing of openable PVC door with door frame of approved make approved quality & design complete with frame , shutters and fittings & fixtures including cost of all materials,conveyance, taxes, labour, labour cess, T&P, staggng wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.	1.57	Sqm	₹ 2,472.86	₹ 3,882.39
25	PCC in M-20 using 20mm & downgraded HGCB chips including cost of all materials,conveyance, taxes, labour, labour cess, T&P, staggng wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge. including cost of all materials,conveyance, taxes, labour, labour cess, T&P, staggng wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.(Rate 15 cum)	26.37	Cum	₹ 6,856.90	₹ 1,80,816.45
26	Providing and fixing 25 mm thick Bituminous joint board (ISI) in expansion joint as per drawing & technical specification including cost of all materials,conveyance, taxes, labour, labour cess, T&P, staggng wherever required, etc required to complete the work as per specification and direction of Engineer-in-charge.	87.90	Rmt	₹ 315.60	₹ 27,741.24
27	Dewatering using 10.0 HP diesel pump including cost of all and complete including cost of all and complete finished in all respect . including cost of all and complete finished in all respect . including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge. Strenthening - 146.36 Hr	93.77	Hr	₹ 557.50	₹ 52,276.77

28	Excavation of any approved type of soil in approved borrow area by mechanical means loading into and transportation by mechanical means and unloading the soil within initial lead of 15 KM on properly prepared and scientifically approved surface including spreading and levelling the earth in 22.50 CM layers to make ready for watering and compaction with sheep foot rollers and dozers but excluding watering and compaction in dams and dykes for all heights including construction, maintenance, watering and light of haul road and borrow area, etc complete as per the direction of Engineer-in-Charge. [Measurement of the fill to be taken on the finished compacted section under OMC condition] including cost of fall and complete finished in all respect . including cost, conveyance, taxes of all materials, cost of all labour, labour cess, T&P scaffolding etc. complete as directed by Engineer-In-Charge. Strengthening - 9257.64 Cum	4923.00	Cum	₹ 194.40	₹ 9,57,031.20
Electrical Installation					
29	Recessed wiring to light point/Fan point/ Exhaust fan point/Call bell point with 1.5sq.mm FR PVC insulated single core multistrand copper conductor of ISI marked with 20mm dia non-metallic PVC flexible conduit with 5A ,25 on MS box having front bakelite cover of suitable size, MS box with 1.5sq.mm FR PVC insulated single core multistrand copper conductor as earth wire including all accessories and connection including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge. (Make of wire-Finolex/L&T/Anchor/Havells/V-Guard/ Great White/HPL)				
29.1	Group-A	1.00	Point	₹ 676.00	₹ 676.00
29.2	Group-B	12.00	Point	₹ 918.00	₹ 11,016.00
29.3	Group-C	3.00	Point	₹ 1,222.00	₹ 3,666.00
30	Supplying and fixing of 6 Amp plug with 6 Amp switch on existing board (Make-Legrand/ /Myline/ Schneider clipsal/ Hager insysta/ Anchor Dura/ or equivalent) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	3.00	Each	₹ 337.00	₹ 1,011.00

31	Supplying, fitting and fixing of Multipurpose board consisting 3 nos 6 Amp plug and switch modular on metal box and modular cover with all connection (Make- Legrand/ /Myline/ Schneider clipsal/ Hager insysta/ Anchor Dura/ or equivalent) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	2.00	Each	₹ 1,849.00	₹ 3,698.00
32	Supplying, fitting & fixing of fan regulator of electronics step type (Make- Cona/ Havells/Anchor,etc) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.	4.00	Each	₹ 699.00	₹ 2,796.00
33	Supplying, fitting & fixing of Bakelite angle holder/batten holder of ISI marked conforming to IS-1258/1987 in place of ceiling rose including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge	6.00	Each	₹ 63.00	₹ 378.00
34	Supplying, fitting & fixing of Different type of fan (Make- Crompton/Usha/Polycab/Orient/Havells/Khaitan,etc) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
34.1	48" Ceiling Fan	4.00	Each	₹ 2,942.00	₹ 11,768.00
35	Supplying, fitting & fixing of different type of LED lights including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.(Make- Havells/ Crompton/ Wipro/ Panasonic/ Philips) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	20 Watt 4' LED tube lights	4.00	Each	₹ 726.00	₹ 2,904.00
36	Supplying and fixing of 10 watt LED BH fitting with 9 watt LED Light (Make- Havells/Crompton/Wipro/Panasonic/Philips)	6.00	Each	₹ 912.00	₹ 5,472.00
37	Supply and fixing of LED street light(Make - Havells/Crompton/Wipro/Panasonic/Philips) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	45 Watt LED street light	3.00	Each	₹ 6,029.00	₹ 18,087.00

38	Supplying and fixing of following different DD DB BOX (make- Havells/ C&S/ L&T) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	12 Way, SPN DD DB Box	2.00	Each	₹ 2,962.00	₹ 5,924.00
39	Supply and fixing of 6 Amp to 32A rating 240V/ 415V "C" series MCB suitable for lighting and other loads of the following poles in the exiting MCB DB ISI marked complete with connection testing and commissioning etc, (make- havells/ C&S/ L&T) including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
39.1	6 to 32 SP MCB	8.00	Each	₹ 276.00	₹ 2,208.00
39.2	6 to 32 DP MCB	4.00	Each	₹ 811.00	₹ 3,244.00
40	Recessed submain wiring alongwith earth wire with the following sizes of PVC insulated single core multistrand copper conductor ISI marked conforming to IS-694/1990 in 20mm dia non metallic heavy duty flexible conduit 1.6 mm in recessed PVC conduit as required including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge (Make of wire -Finolex/ L&T/ Anchor/ Havells/V-Guard/Great White/HPL)				
40.1	2 X 2.5 Sq.mm +1 X 1.5 Sqmm	100.00	Mtr	₹ 147.00	₹ 14,700.00
40.2	2 X 4.0 Sq.mm +1 X 1.5 Sqmm	60.00	Mtr	₹ 166.00	₹ 9,960.00
40.3	2 X 6.0 Sq.mm +1 X 1.5 Sqmm	60.00	Mtr	₹ 196.00	₹ 11,760.00
41	Supply and fixing copper plate earthing 600mm X 600mm X 3.15mm thick ISI marked including all accessories and providing masonry with charcoal and salt as required, including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
		1.00	Each	₹ 18,051.00	₹ 18,051.00
Water Supply and Sanitary Installation					
42	Supplying all materials,labour and T&P for cutting holes through existing brick work including making good to the same in cement mortar(1:4) for taking G.I. pipes and fittings /P.V.C. pipes and fittings all complete as per specification including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
	250 mm thick wall	3.00	No	₹ 65.00	₹ 195.00

43	Providing and fixing to wall or ceiling and floor rigid PVC pipes conforming to ASTM-D-1785/89[Sch-80] and pipe fittings of the following nominal bore with clamps including making good the wall , ceiling and floor all complete as per specification including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
43.1	25 mm Ø	21.00	Mtr	₹ 246.20	₹ 5,170.20
43.2	32 mm Ø	60.00	Mtr	₹ 271.00	₹ 16,260.00
43.3	50 mm Ø	60.00	Mtr	₹ 535.10	₹ 32,106.00
44	Providing and fixing on wall face unplasticised rigid PVC soil waste and rain water pipes confirming to IS : 13592 Type A including jointing with seal ring confirming to IS:5382 leaving 10mm gape for thermal expansion [i] Single socket pipes.				
44.1	75 mm dia pipe	12.00	Mtr	₹ 241.70	₹ 2,900.40
44.2	110 mm dia pipe	15.00	Mtr	₹ 389.80	₹ 5,847.00
45	Providing and fixing of Rational moulded polyethylene cylindrical vertical water 500 Ltr. capacity storage tanks confirming to IS:12701-1996 including cutting holes through the tank and fixing mild steel tubes and fittings and providing extra sockets and jam nuts , fixing ball valve etc. including hoisting up to a height of 5.00metres above ground level and placing the tank to the required position etc. all complete as per specification and direction of the engineer-in-charge.	1.00	No	₹ 4,955.70	₹ 4,955.70
46	Providing all materials, labour,T&P and fittings and fixing of different water supply (CP on Brass) fitting as per IS specification & approved make of following sizes and specification with leak proof threaded joints with spun yarn and white zinc or any other method as required and directed including all duties, transportation etc., testing and rectification of defects after testing complete as per direction of Engineer-in-charge. Make: HINDWARE/Jaquar/Parryware/Birla				
46.1	15mm dia CP Angular Stop cock	2.00	No	₹ 936.40	₹ 1,872.80
46.2	15mm dia C.P concealed	1.00	No	₹ 1,122.80	₹ 1,122.80
46.3	15mm dia CP pillar cock	1.00	No	₹ 901.00	₹ 901.00
46.4	CP Towel Ring	1.00	No	₹ 546.80	₹ 546.80
46.5	C.P. glass self	1.00	No	₹ 795.90	₹ 795.90
47	Supplying all labour and T&P for fixing U.P.V.C Ball valve [horizontal plunging type] confirming to IS: 1703-1977 of the following nominal sizes as per specification complete, including cost, conveyance, royalties, taxes of all materials, cost of labour, labour cess, T&P etc. required for the work complete as per the direction of Engineer-in-Charge.				
47.1	25mm dia UPVC	1.00	No	₹ 1,241.10	₹ 1,241.10

47.2	25mm dia UPVC	1.00	No	₹ 4,666.80	₹ 4,666.80
47.3	50mm dia UPVC	2.00	No	₹ 4,666.80	₹ 9,333.60
48	Supplying all materials,labour and T&P for fixing CP Gratings of the following nominal diameter of outlet, of self cleaning design with sand cast iron screwed down or hinged grating with or without vent arm including cutting and making good to the walls and floors etc. all complete as per specification.				
	C.P Gratings	2.00	Each	₹ 678.40	₹ 1,356.80
49	Supplying all materials,labour and T&P for fixing wash hand basin with hole for pillar taps confirming to IS 2556:part4-2004 with cast iron /M.S. brackets painted white including cutting holes in walls and making good to the damages etc. all complete as per specification.				
49.1	Wash hand basin 550x400mm	1.00	Each	₹ 3,281.60	₹ 3,281.60
50	Supplying fitting fixing of cromium plated CP over head shower rose with arm including polishing and complete as per specification.				
	Over head shower	1.00	Each	₹ 741.40	₹ 741.40
51	Providing all materials, labour, T&P for fixing of following sizes of bevelled edge mirror of 5mm thick mounted on 6mm thick AC back sheet & CP cup screw with PVC wall plugs including cost, conveyance, of all materials complete as per specification and direction of Engineer-in-charge. 600mm x 450mm size	1.00	Each	₹ 911.80	₹ 911.80
52	Supplying all materials,labour and T&P for fixing of [A] liquid soap container - glass container or plastic container with chromium plated brass lid and brackets fixed to wooden plugs with chromium plated brass screws [B] cromium plated brass soap dish complete with chromium plated brass brackets fixed to wooden plugs with chromium plated brass screws [C] white glased tooth brush holder fixed to wooden plugs with chromiumplated brass screws as per specification				
	CP sope holder/ disc	1.00	Each	₹ 351.60	₹ 351.60
53	Supplying fitting fixing of CP waste of the following noninal diameter for wash hand basin and sink as per specification.				
	32mm CP waste	2.00	Each	₹ 125.00	₹ 250.00
54	Supplying fitting fixing of 15mm dia PVC inlet connection pipe and making connection with piller cock and supply mains for wash basin complete as per specification.				
	15mm dia 15mm x 300mm	3.00	Each	₹ 87.80	₹ 263.40
55	Supplying fitting fixing of CP waste of the following noninal diameter for wash hand basin and sink as per specification.				
	32mm CP waste	2.00	Each	₹ 380.10	₹ 760.20

56	Constructing RCC soak way pit with R.C.C top slab in (1:2:4) mix, inside plaster 12mm thick with cement mortar (1:3) finished with neat cement punning, 12mm thick outside cement plaster (1:3), brick work with K.B bricks having crushing strength not less than 75kg/cm ² with dimensional tolerance ± 8 percent in cement mortar (1:4), cement concrete (1:2:4) finished smooth using 12mm size h.g chips, complete as per specification.	1.00	Each	₹ 26,861.00	₹ 26,861.00
57	Supplying all materials,labour and T&P for fixing stainless steel AISI 304 [18/8] Kitchen sink as per IS 13983 with cast iron bracet and stainless steel plug including painting of fittings and brackets ,cutting and making good to the walls etc. all as per specification including cost of sink with all accessories. sink 24"x18"10" (Parryware)	1.00	Each	₹ 9,041.00	₹ 9,041.00
58	Supplying all materials,labour and T&P for fixing standard size C. P. towel rail fixed with chromium plated brass brackets fixed to wooden plugs with cromium plated brass screws complete as per specification.				
	Chromium plated towel rail 25mm x 600mm long	1.00	Each	₹ 1,076.10	₹ 1,076.10
59	Supplying all labour and T&P for fixing CP long body Bib cock [taps] polished bright confirming to IS:781-1995 of the following nominal sizes as per specification all complete .	1.00	Each	₹ 988.90	₹ 988.90
	TOTAL= 59 (FIFTY-NINE) ITEMS ONLY				₹ 22,92,073.42
				Or Say.	₹ 22,92,073.00
RUPEES TWENTY TWO LAKHS NINETY TWO THOUSAND SEVENTY THREE ONLY					
RATE QUOTED BY THE TENDERER					
		IN FIGURE		IN WORDS	
PERCENTAGE EXCESS OVER THE ESTIMATED VA					
PERCENTAGE LESS OVER THE ESTIMATED VALU					
PERCENTAGE AT PAR THE ESTIMATED VALUE					

APPROVED

CONTRACTOR

Executive Engineer (C)
Directorate of Fisheries,
Odisha, Cuttack

CONTRACTOR

TENDER OPENING OFFICER