

BID IDENTIFICATION NO: - DPIWT-03/2026-27



**GOVERNMENT OF ODISHA
FISHERIES & ARD DEPARTMENT**

DETAIL TENDER CALL NOTICE

FOR THE WORK

**CONSTRUCTION OF FISHING
HARBOUR – STAGE II AT ASTARANGA
(NUAGARH) IN PURI DISTRICT OF
ODISHA (RETENDER)**

(COVER-I)

TECHNICAL BID

ESTIMATED COST PUT TO TENDER:

Rs.1,42,87,12,459.00

**DIRECTOR
PORTS & IWT, ODISHA
BHUBANESWAR**

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**Directorate of Ports & Inland Water Transport,
Zone-A, Ground Floor, Fortune Tower,
Chandrasekharapur, Bhubaneswar-751023**

Phone: 0674-2300885, Fax:0674-2396885 Email: - portsniwt.od@nic.in

NOTICE INVITING TENDER (NIT)

Bid Identification No: - DPIWT – 03/ 2026-27

01. The Director, Ports and I.W.T. Odisha, Bhubaneswar on behalf of the Governor of Odisha invites **Percentage Rate Bid** for “**Construction of Fishing Harbor Stage-II at Astaranga (Nuagarh) in Puri district of Odisha**” as detailed in the table given below in **Double Cover System ON LINE** bidding, from **Super Class** contractors registered with the State Government and contractors of equivalent Grade / Class registered with Central Government / MES / Railways for execution of Civil works, on production of definite proof from the appropriate authority. The scanned copy of proof of registration from the appropriate authority should be uploaded along with the bid. If successful, the bidder who has not registered under the state government has to register under the state PWD in appropriate class of eligibility before signing of the agreement.
02. The bidders may submit bids for the following work;

Sl No	Name of Work	Approximate Value of Work (In Rs.)	Name of the Concerned Division	EMD/Bid Security	Cost of Document through Online (In Rs.)	Period of Completion
1	2	3	4	5	6	7
01.	Construction of Fishing Harbor–Stage II at Astaranga (Nuagarh) in Puri district of Odisha	Rs.142.87 Crore	Executive Engineer, Fishery Engineering Division, Bhubaneswar	Rs.1,42,87,200/-	Rs.10,000/-	24 (Twenty four months)

03. Bid documents consisting of plans, specifications, the schedule of quantities and the set of terms & conditions of contract and other necessary Documents can be seen in the website <http://tendersodisha.gov.in>
04. The bidder shall transfer the required amount of E.M.D / Bid Security and cost of Bid document as mentioned for the specified work in Column- 5 & 6 respectively of above Table by online through a process as mentioned DTCN failing which the bid shall be rejected.
05. As per Works Department O.M. No.4281/W, dated 05.03.2025, no exemption on EMD or concessional Performance Security is allowed for MSMEs or Start-ups, as these benefits have been withdrawn by the Government of Odisha.

06. The Bid documents will be available in the <http://tendersorissa.gov.in> from Dt. **15.07.2026 to 20.08.2026 up to 05.00 P.M.**
07. Bid Clarification Date from **15.07.2026 to 21.07.2026, 03.00 P.M.**
08. The Bidder must possess Compatible Digital Signature Certificate (DSC) of Class II or Class-III.
09. **Pre-Bid Meeting will be held on 24.07.2026 at 11.30 AM in the Conference Hall of O/o the Director, Ports & IWT, Zone-A, Ground Floor, Fortune Tower, Bhubaneswar.**
10. Bids shall be received only in “on line” on or before **05.00 P.M. of 20.08.2026.**
11. Bids received on “on line” shall be opened (Cover-I) at **11.30 A.M on 21.08.2026** in the **Directorate of Ports & IWT, Zone-A, Fortune tower (Ground Floor), Chandrasekharpur, Bhubaneswar-23** in presence of bidders who wish to attend. Bidders who participated in the bid can witness the opening of bids after logging on to the site through their DSC. If the office happens to be closed on the date of opening of Bids as specified, the bids will be opened on the next working day.
12. If any of the intending Bidders wish to withdraw from participation in the Bid. The Bidder can freely withdraw from the participation before scheduled date and time of closure, failing which action as deemed fit as per relevant Codal practice will be taken against them.
13. The authority will not be held responsible for any technical problem/ failure of network, Server during the schedule dates of online bidding.
14. Any corrigendum/ Addendum will be displayed in the e-procurement website of Govt. of Odisha
15. Other details can be seen in the bidding documents.
16. The authority reserves right to cancel any or all bids without assigning any reason.

**Sd://-
Director
Ports & IWT, Odisha**

Memo No. 2531 /, Dtd. 13.07.2026 //

Copy forwarded to the Deputy Director (Advertisement), I&PR Department, Odisha, Bhubaneswar for kind information with a request to publish the notice in 2(Two) leading Odia Daily and 2(Two) English National Daily News Paper on or before **14.07.2026** for wide circulation. The cost of advertisement may kindly be paid by I&PR Deptt. Soft copy of “e” **Procurement Notice** is attached with e-mail for advertisement in daily newspapers.

**Sd://-
Director
Ports & IWT, Odisha**

Memo No. 2532 /, Dtd. 13.07.2026 //

Copy forwarded to the Director, Printing Stationary and Publication, Government of Odisha, Madhupatana, Cuttack-10 for information and necessary action. He is requested to arrange for publication in next issue of Odisha Gazette.

**Sd://-
Director
Ports & IWT, Odisha**

Memo No. 2533 /, Dtd. 13.07.2026 //

Copy forwarded to the Head State portal group, IT Centre Department of Information and Technology, Odisha, Bhubaneswar with a request to display the tender call notice in the Website of Government of Odisha i.e. in <http://odisha.gov.in/tenders> with facilities so as to enable the interested contractor to participate in the tender till the last date of sale and receipt i.e, Dt. **20.08.2026 up to 5.00 PM.**

**Sd://- Director
Ports & IWT, Odisha**

Memo No. 2534 /, Dtd. 13.07.2026 //

Copy submitted to the Joint Secretary to Government, Fisheries & ARD Department, Odisha, Bhubaneswar for favour of information.

**Sd://-
Director
Ports & IWT, Odisha**

Memo No. 2535 /, Dtd. 13.07.2026 //

Copy submitted to the Director of Fisheries, Odisha, Cuttack for favour of information.

**Sd://-
Director
Ports & IWT, Odisha**

Memo No. 2536 /, Dtd. 13.07.2026 //

Copy forwarded to the Executive Engineer, Fishery Engineering Division, Bhubaneswar for information and necessary action.

**Sd://-
Director
Ports & IWT, Odisha**

Memo No. 2537(2) /, Dtd. 13.07.2026 //

Copy submitted to the Collector and District Magistrate, Khurda / Superintendent of Police, Khurda for favour of kind information and necessary action.

**Sd://-
Director
Ports & IWT, Odisha**

Memo No. 2538 (2) /, Dtd. 13.07.2026 //

Copy forwarded to the Superintending Engineer (Mech), Ports & IWT, Mechanical Division, Cuttack/ Superintending Engineer (Civil), Ports & IWT, Civil Division, Berhampur for information & wide circulation.

**Sd://-
Director
Ports & IWT, Odisha**

Memo No. 2539 /, Dtd. 13.07.2026 //

Copy to Officer in Charge, Maitri Vihar Police Station, Bhubaneswar for information and necessary action.

**Sd://-
Director
Ports & IWT, Odisha**

Memo No. 2540(2) /, Dtd. 13.07.2026 //

Copy to Guard File for record and reference / Office Notice Board for wide circulation.

**Sd://-
Director
Ports & IWT, Odisha**



**Directorate of Ports & Inland Water Transport,
Zone-A, Ground Floor, Fortune Tower,
Chandrasekharpur, Bhubaneswar-751023**

Phone: 0674-2300885, Fax:0674-2396885 Email: - portsniwt.od@nic.in

e-PROCUREMENT NOTICE

Bid Identification No. DPIWT - 03/2026-27

- | | | | |
|-----|---|----|---|
| 01. | Name of the Work | :- | Construction of Fishing Harbour Stage-II at Astaranga (Nuagarh) in Puri District. |
| 02. | No. of Covers | :- | Double Cover |
| 03. | Approximate Value of Work | :- | Rs. 142.87 Crore |
| 04. | Bid Cost | :- | Rs.10,000.00 (Online) |
| 05. | Period of completion | :- | 24 (Twenty-Four) Calendar Months |
| 06. | Date & Time of availability of Bid Document in the portal | :- | Dt. 15.07.2026 11.30 AM to 20.08.2026 up to 05.00 P.M. |
| 07. | Date & Time of Bid Clarification | :- | Dt. 15.07.2026 to 21.07.2026 up to 03.00 P.M. |
| 08. | Date & Time of Pre-Bid Meeting | :- | Dt. 24.07.2026 at 11.30 AM in the Conference Hall of O/o the Director, Ports & IWT, Odisha. |
| 09. | Last Date/Time for receipt of Bids in the portal | :- | Dt. 20.08.2026 up to 05.00 P.M. |
| 10. | Class of Contractor | :- | 'Super' Class Contractor |
| 11. | Date & Time for opening of Technical Bid (Cover-I) | :- | Dt. 21.08.2026 at 11.30 A.M. |
| 12. | Name and Address of the Officer Inviting Tender (O.I.T) | :- | Director, Ports & Inland Water Transport,
Fortune Tower, Ground Floor, Zone-A,
Chandrasekharpur, Bhubaneswar, Odisha,
Pin-751023
Phone-0674-2390355, Fax-2396885.
e-Mail: - portsniwt.od@nic.in |

Further details can be seen from the e-procurement portal "<https://tendersodisha.gov.in>"

The Addendum / Corrigendum if any will be hosted in the website only.

**Sd://-
Director
Ports & IWT, Odisha**

CHECKLIST TO BE ENSURED BY THE BIDDER

Sl. No	Particulars	Reference to DTCN Clause no.	Whether furnished		Reference to Page No.
			Yes	No	
01.	Cost of tender paper of Rs.10,000.00 (Online)	No.4			
02.	EMD for Rs. 1,42, 87,200/- (Online) (Scanned copy of financial instrument shall be furnished)	No.4			
03.	Copy of valid Registration Certificate	No.5(i)			
04.	Copy of GSTIN	No.5(i)			
05.	Copy of PAN Card	No.5(i)			
06.	No Relationship Certificate in Schedule – A	No.36			
07.	Works Experience: List of projects under Progress that are similar in nature to the work (Schedule-B) & List of projects executed that are similar in nature to the work (Schedule-D)	No.49			
08.	Gross Annual Turnover certified by the Chartered Accountant & other eligibility criteria	No.104(f) (i)			
09. (A)	Information regarding current litigation, debarring/ expelling of the tender or abandonment of the work by the bidder (Schedule-E)	No.50			
(B)	Affidavit (Schedule-F)	No.50			
10.	Bid Capacity Total value of Civil Engineering construction work performed in the last five year with certificate from chartered Accountant. Existing commitments and on going works in Scheduled–J	No.104 [f(iv)]			
11.	Tools & Plants and machineries as per the requirement in Schedule-C (Proof of ownership of Tools & Plants and machineries is to be furnished in shape of copy of invoices/required sale deed in case of 2nd purchase/ required lease deed with owner ship documents of the leaser duly attested /affidavit showing the possession. In case of centering & shuttering materials an Affidavit to that effect is to be furnished).	No.8&104(d)			
	List of Plants and equipment's	Requirement			
(i)	Hydraulic Grab	1 Set.			
(ii)	Piling plant & equipment	2 Set.			
(iii)	Truck & Tipper	4 Nos.			
(iv)	Tractor with Taylor	2 Nos.			
(v)	Water Tanker (10 KL)	4 Nos.			
(vi)	Welding Machine	2 Nos.			
(vii)	Generator	2 Nos.			
(viii)	Concrete mixer	4 Nos.			
(ix)	Excavator	2 Nos.			
(x)	Concrete Vibrator: (Needle and Plate type)	4 Nos. (2 Nos. each)			
(xi)	Complete staging, shuttering, centering arrangement	1000 Sqm.			
(xii)	Hydra Crane (55 T)	1 Nos			
(B)	Certificate by the Executive Engineer under whom the machineries/equipment's are deployed as per Annexure - III of Schedule-C				
(C)	Time schedule for movement of Equipment's / machineries available with the tenderer from one site to work site as per Annexure -IV of Schedule-C				
12	MOU (Memorandum of Understanding duly Notarized) with eligible registered Electrical Contractor having valid H.T / L.T./ M.V License	No 104 (e)			

CONTRACT DATA

A. GENERAL INFORMATION

Sl. No.	Item	Details
1.	Name of the Work	Construction of Fishing Harbour Stage-II at Astaranga (Nuagarh) in Puri District.
2.	Officer Inviting & Accepting the Tender	Director, Ports & IWT, Odisha, Bhubaneswar
3.	Executive Engineer concerned with head quarters authorised as Engineer-in-charge of this work.	Executive Engineer, Fishery Engineering Division, Bhubaneswar
4.	<u>Estimated Cost</u> Civil Composite Works	Rs. 1,42,87,12,459.00
5.	Nearest Quarry	
	a. Sweet Sand	From Bauriakana – 17 km.
	b. Saline Sand	From – 34 km.
	c. Stone and Stone Products	From Parichhal, Begunia – 102 Km
	d. Fly Ash Brick	From Nimapada - 41 Km.
	e. Moorum	From Kalibeti, Khordha – 103 KM
	f. Steel	From Nimapada - 41 KM
	g. Cement	From Nimapada - 41 KM
	h. Bitumen Drums	From Haldia – 437 KM
	i. Marble & Tiles	From Nimapada - 41 KM
	j. Wood & Wood Product	From Nimapada - 41 KM
	k. Bulky Materials & Hume Pipe	From Bhubaneswar – 82 Km.
	l. Bitumen Emulsion	From Haldia – 437 KM
	m. Aluminium Extrude Silver Modified Adhesive	From Nimapada - 41 KM
	n. Ply Wood & Moulded Wood products	From Nimapada - 41 KM
	o. Maxphalt	From Haldia – 437 KM

B. BID INFORMATION

1	Intended completion period/Time period assigned for Completion	24 (Twenty four) Calendar Months
2	Last Date & time of submission of Bid	Up to 5.00 P.M. Date: 20.08.2026
3.	Last Date & time of Clarification of the Tender	Up to 3.00 P.M. Date: 21.07.2026
4	Cost of Bid Document	
	i Amount (To be remitted online)	Rs.10,000.00
5	Bid Security (EMD)	
	i Amount (To be remitted online)	Rs.1,42,87,200/-
6	Bid validity period	90 days
7	Currency of Contract	INR
8	Language of Contract	English
9.	Project Management Consultancy (PMC)	Government of Odisha has appointed IIT, Madras, Chennai as Project Management Consultant (PMC) for the above work.

Instruction To Bidders (ITB)

e-procurement

Instruction to Bidders for e-procurement (Relevant clauses in the DTCN/Bid document shall be superseded)

A. GENERAL

1. NOTICE INVITING BID AND OBTAINING BID DOCUMENTS:

- 1.1. The authority belonging to the major discipline is competent to invite tender of composite bids. He will also nominate the Executive Engineer who will deal with all matters relating to the bids in the invitation of bids.
- 1.2. For composite tender, besides indicating the combined estimated cost put to tender, should clearly indicate the estimated cost of each component separately. The eligibility of bidders will correspond to the combined estimated cost of different components put to tender.
- 1.3. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules / amendments issued there under from time to time. If he fails to do so, it will be considered a breach of the contract and the Superintending Engineer/Executive Engineer may in his discretion without prejudice to any other right or remedy available in law, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.
- 1.4. The contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the Tender and of the rates and prices quoted in the Bill of Quantities, all of which shall, except in so far as it is otherwise provided in the Contract, cover all his obligations under the Contract (including those in respect of the supply of goods, materials, plant & services or of contingencies for which there is a Provisional Sum) and all matters and things necessary for the proper execution and completion of the work and the remedy of any defects therein.
- 1.5. The successful bidder shall complete the works by the intended completion date specified in the Contract data.
- 1.6. Throughout these bidding documents, the terms " bid and tender" EMD and Bid Security and their derivatives (bidder / tenderer, bidding / tendering, etc.) are synonymous.
- 1.7. In case the tender for composite work includes in addition to main work / building work all other ancillary works such as sanitary and water supply installations, drainage installation, electrical work, horticulture work, roads and paths and gate works in dams and canals etc. , the bidder apart from being a registered civil Contractor of appropriate class must associate himself for the said work with agencies of appropriate class those who is eligible to tender, electrical and horticulture works in the composite tender. Intending purchasers are required to produce documents viz. Contractor Registration Certificate, Pan card, GST, of self and the contractor with whom associated for execution of Composite work for verification purpose in the later stage. Furnishing copy of such documents is mandatory along with the tender documents otherwise, his/her bid shall be declared as non-responsive and thus liable for rejection. The Successful lowest Bidder is required to produce the originals of all the scanned documents in the office of **Director, Ports and Inland Water Transport, Odisha, Bhubaneswar** for verification within 5(five)days of opening of the financial bid. In the eventuality of failure on the part of the lowest successful bidder to produce the original documents, he will be debarred in future from participating in tender for 3 years and will be black listed by the competent authority. In such a situation, successful L-2 bidder will be required to produce his original documents for consideration of his tender at the negotiated rate equal to L-1 bidder. The Successful bidder who has quoted less bid price / rates than the estimated cost put to tender shall have to furnish the Additional Performance Security (APS) in shape of Term Deposit Receipt pledged in favour of the concerned Executive Engineer / Bank Guarantee

in favour of the concerned Executive Engineer, from any Nationalized/ Scheduled Bank in India counter guaranteed by its local branch at Bhubaneswar within 7 days of issue of Letter of Acceptance (LoA), otherwise the bid of the successful bidder shall be cancelled and the Earnest Money Deposit / Bid Security shall be forfeited. Further proceedings for blacklisting shall be initiated against the bidder.

1.8. PARTICIPATING IN THE BID IN THE E-PROCUREMENT PORTAL:

The Contractor/Bidder intending to participate in the bid is required to register in the Portal using his/her active personal/official e-mail ID as his/her Login ID and attach his/her valid Digital signature certificate (DSC) to his/her unique Login ID. He/ She has to submit the relevant information as asked for about the firm/contractor. The portal registration of the bidder/firm is to be authenticated by the State Procurement Cell after verification of original valid certificates/documents such as (i) PAN card (ii) Registration Certificate (RC)/ GST Certificate (for procurement of goods) of the concerned bidder. The time period of validity in the portal is at par with validity of RC/GST Clearance. Any change of information by the bidder is to be re authenticated by the State procurement cell. After successful authentication bidder can participate in the online bidding process. The DSC used must be of appropriate class (Class II or Class III) issued from a registered Certifying Authorities (CA) as stipulated by Controller of Certifying Authorities (CCA), Government of India such as n-Code, Sify, TCS, MTNL, e-Mudra and is mandatory for all users.

- 1.8.1. Bidder participating through joint venture shall declare the authorised signatory through memorandum of understanding duly registered and enroll in the portal in the name and style of the joint venture company. It is mandatory that the DSC issued in the name of the authorised signatory is used in the portal.
- 1.8.2. Any third party/company/person under a service contract for operation of e-Procurement system in the state or his/her subsidiaries or the parent companies shall be ineligible to participate in the procurement process that are undertaken through the e-procurement system irrespective of who operates the system.
- 1.8.3. To log on to the portal the Contractor/Bidder is required to type his/her username and password. The system will again ask to select the DSC and confirm it with the password of DSC as a second stage authentication. For each login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CAs stored in system database. The system checks the unique ID, password and DSC combination and authenticates the login process for use of portal.
- 1.8.4. The tender documents uploaded by the Tender Inviting Officer in the website www.tendersorissa.gov.in will appear in the section of "Upcoming Tender" before the due date of tender sale. Once the due date has arrived, the tender will move to "Active Tender" Section of the homepage. Only a small notification will be published in the newspaper specifying the work details along with mention of the specific website for details. The publication of the tender will be for specific period of time till the last date of submission of bids as mentioned in the 'Invitation for Bid' after which the same will be removed from the list of Active tenders. Any bidder/Guest Users can view or down load the bid documents from the web site only after the due date & time of sale.
- 1.8.5. Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidences in shape of affidavit towards his eligibility for such exemption.
- 1.8.6. The software application has the provision of payment of cost of tender document through payment gateways of authorized bankers by directly debiting the account of the bidders, bidders will be required to avail on-line payment.

- 1.9. The bidder intending to participate in the bid on-line shall have to remit their Earnest Money deposit/Bid Security and cost of bid document of the amount specified for the work in the table col.6 and col.7 of the Tender Call Notice in online mode, The bidders with pending or failure payment status shall not be able to submit their bid. State Procurement Cell, NIC, Designated Banks shall not be held responsible for such pendency or failure
- 1.10. In the case of any failure, malfunction, or breakdown of the electronic system used during the e-procurement process, the tender inviting officer shall not accept any responsibility for failures or breakdowns other than in those systems strictly within their own control. For all-purpose, the server time displayed in the e-Procurement portal shall be the time to be followed by all the users.

2. ELIGIBLE BIDDERS:

- 2.1. This Bid is open to all Contractors of the class mentioned in the Invitation for Bids registered with the State Governments and Contractors of Equivalent Grade / Class Registered with Central Government / MES / Railways for execution of civil works. The Bidders are required to enclose the proof of registration from the registering authority along with the Bid subject only to the registration in the portal using his/her DSC for on-line bids. Contractors not registered with Government of Odisha, can participate in the e- procurement after necessary enrolment in the portal but have to subsequently register themselves with the appropriate registering authority of the State Government before award of work as per registration norms of the state.
- 2.2. All bidders shall provide a statement that the bidder is neither associated, nor has been associated, directly or indirectly, with the Consultant or any other entity that has prepared the design, specifications, and other documents for the Project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Engineer-in-Charge to provide consulting services for the preparation or supervision of the works, and any of its affiliates shall not be eligible to bid.
- 2.3. If the bidder has a relative employed as an Officer in the rank of an Assistant Engineer/Under Secretary and above in the State Government of Odisha in the concerned Department, he shall inform the same in the bid mentioning the exact details in a covering letter along with the tender, failing which his bid will not be considered. Also, if the fact of relationship subsequently comes to light, his contract will be rescinded. The bid security or the performance security will be forfeited and he shall be liable to make good any loss or damage resulting from such cancellation. In case the bidder has no relationship with any of the officers mentioned above he shall have to furnish with his bid a certificate.
- 2.4. He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in the concerned Department. Any breach of this condition by the contractor would render him liable for penal action for suppression of facts.
- 2.5. No Engineer of gazetted rank or other gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the Government of Odisha is allowed to work for contractor for a period of two years after his retirement from Government service, without prior permission of the Government of Odisha in writing. Such a contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of Odisha as aforesaid before submission of the tender for engagement in the contractor's service.

3. QUALIFICATION CRITERIA:

- 3.1. For submission of Bids through the E-Procurement Portal, the bidder shall up load the scanned copy/copies of document listed under clause 3.2 in prescribed format wherever warranted in support of qualification information. All bidder shall have to produce the original documents in support of the scanned copies and statements uploaded in the portal for verification in the office of **Director, Ports and Inland Water Transport, Odisha, Bhubaneswar** within 5(five) working days of opening of the technical-bid.
- 3.2. The bid shall include following information and documents.
- a. Copy of valid contractor's registration certificate, PAN card, GST should accompany the technical bid.
 - b. Copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory.
 - c. Major construction equipment to be deployed to carry out the Contract. The contractors are required to furnish evidence of ownership of principal machineries / equipment's for only those machineries / equipment's asked for in the tender documents.
 - d. In case the contractor executing several works he is required to furnish a time schedule for movement of equipment/machinery from different site to this work site when work is to be executed.
 - e. The contractor shall furnish ownership documents for those machineries which he is planning to deploy for the tendered work as per requirement.
 - f. The contractor intending to hire/lease equipment's/machineries are required to furnish proof of ownership from the company/person providing equipment's/machineries on hire/lease along with contracts/ agreements/lease deed and duration of such contract/ agreement/ lease deed and any of the documents of Lessor having his signature authenticity like PAN /Driving License/Contract Registration Certificate/ Passport along with proof of ownership documents for machineries (Tax Invoice) of the Company/ person providing equipment/ lease deed. The contracts/ agreements/ lease deed should be on long term basis for a minimum period of 1(one) year from the 1st date of the bidding of tender. Non submission of above specified documents in proper shape the bid document will be summarily rejected.
 - g. Details of work under progress along with List of similar nature of Work in Schedule-D as per Clause No.49 of the DTCN and Bid Capacity at the expected time of bidding as per Clause No.128 i. Relationship Declaration as per Schedule-A and Clause No.2.3 of Instruction to bidder for e-procurement.
 - h. Scanned copy for information regarding current litigation, debarring / expelling of the applicant or abandonment of work by the applicant in schedule "F" and scanned copy of affidavit to that effect including authentication of tender documents in schedule "G". Non furnishing of Schedule-F & G will be liable for rejection

3.3 The Bidders are subject to be disqualified if they have:

- a. Made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements.
- b. Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.
- c. Participated in the previous bidding for the same work and had quoted unreasonable prices and could not furnish rational justification to the Engineer-in-Charge.
- d. Indulged in unlawful & corrupt means in obtaining bids.
- e. Been black listed/suspended by the competent authority.

4. ONE BID PER BIDDER:

4.1. Each bidder shall submit only one bid for one package. A bid is said to be complete if accompanied by cost of bid document and appropriate bid security. The system shall consider only the last bid submitted through the E-Procurement portal.

5. COST OF BIDDING:

5.1 The bidder shall bear all costs associated with the preparation and submission of his bid, and the Engineer-in-Charge will in no case be responsible and liable for those costs.

5.2 The Estimated Cost is excluding GST and including CESS, Royalty and Cost of Conveyance. The rates of item basing on which estimated cost has been derived are excluding GST on different components to arrive at such rates. GST as applicable on Works Contract shall be paid over the bill amount at the time payment of bill.

5.3 The rate of royalties and taxes prevailing on the date of measurement shall be considered as per latest Govt. Circular.

5.4 The successful bidder shall make his own arrangement for all materials unless otherwise specified in the conditions of contract.

6. SITE VISIT: (Revised/substituted as per Works Deptt. Office Memorandum No.12366 dt.8.11.2013)

6.1. Every bidder is expected before quoting his rate to inspect the site of proposed work. The bidder should also inspect the quarries and approach roads to quarries and satisfy himself/themselves about the quality and availability of materials. In every case the materials must comply with the relevant specifications. Complaints in future date that the availability of materials at quarries has been misjudged can not be entertained. Bidders are advised to satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A Bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The Bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of work.

- 6.2. The bidder, in preparing the bid, shall rely on site Investigation Reports referred to in the Contract Data, supplemented by any information available to the bidder.
- 6.3. The Officer inviting the bid / Engineer-in-Charge will clarify queries on the Contract Data on requisition by the intending Bidder. The bidder may ask question in the e-procurement portal using his DSC; provided the questions are raised before the date mentioned in the home page under critical dates.

B. BIDDING DOCUMENTS

7. GENERAL INSTRUCTIONS:

- 7.1 The description of the work is as mentioned under Invitation for Bid.
- 7.2 The bids uploaded by the Tender Inviting Officer shall consist of general arrangements drawings or typical sections of the project. Bidder may download these drawings and take out the print for detail study. Any other drawings and documents pertaining to the works available with the officer inviting the Bid will be open for inspection by the bidders. The bidder is required to download all the documents including the drawings for preparation of his bid. It is not necessary for the part of the Bidder to upload the drawings other Bid documents (after signing) while uploading his bid. He is required to upload documents related to his qualification information and Bill of Quantities duly filled in. It is assumed that while participating in the bid, the bidder has referred all the drawings and documents uploaded by the Officer Inviting the Bid. Seeking any revision of rates or backing out of the bid claiming for not having referred to any or all documents provided in the Bid by the Officer Inviting the Bid will be construed as plea to disrupt the bidding process and in such cases the bid security shall be forfeited.
- 7.3 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, and technical specifications, bill of quantities, forms, Annexes and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk.

8. CLARIFICATION OF BIDDING DOCUMENTS:

- 8.1. The bidder may ask question related to tender online in the e-procurement portal using his/her DSC, provided the questions are raised within the period of seeking clarification as mentioned in Tender call notice/Bid. The officer inviting the Bid/Procurement officer- Publisher will clarify queries related to the tender.
- 8.2. No paper copy of the bid shall be sold.
- 8.3. The Contract Data to bid shall be filled and completed in the office of Officer inviting bid before issue of bid documents. If the documents are issued to the intending bidder without having been so filled in & completed, he shall request the officer inviting the bid to have this done before he completes and delivers his bid.

9. AMENDMENT OF BIDDING DOCUMENTS:

- 9.1. Before the deadline for submission of bids, the officer inviting the Bid may modify the bidding documents by issuing addenda.
- 9.2. Any addendum/corrigendum thus issued shall be part of the bidding documents and shall be notified in the website www.tendersorissa.gov.in / notice board and through paper publication.

- 9.3. The system generates a mail to those bidders who have already uploaded their tenders and those bidders if they wish can modify their tenders. The bidders are required to watch the website till last date and time of bid submission for any addendum/ corrigendum/ cancellation thereof. Tender inviting authority is not responsible for communication failure of system generated mail.
- 9.4. To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Officer inviting the Bid if also happens to be the Engineer-in-Charge with the permission of the higher authority may, at his discretion, extend as necessary the dead line for submission of bids.

C. PREPARATION OF BIDS

10. LANGUAGE OF THE BID:

- 10.1. All documents relating to the Bid shall be in the English / Hindi / Oriya language. Bids submitted in any other language shall be summarily rejected.

11. DOCUMENTS COMPRISING THE BID:

- 11.1. Following documents will be deemed to be part of the bid even if not submitted with the bid.

- (i) Invitation for Bids (IFB)
- (ii) Procedure for Electronic Receipt.
- (iii) Instructions to bidders (ITB)
- (iv) Conditions of Contract
- (v) Contract Data
- (vi) Specifications
- (vii) Drawings

- 11.1.1. All the volumes/documents shall be provided in the portal by the Officer inviting the bid. The bidder shall carefully go through the document and prepare the required documents and up load the scanned documents in Portable Document Format to the portal in the designated locations of Technical Bid. He will fill up the rates of items or percentage in the BOQ down loaded for the work in designated Cell and up loads the same in designated locations of Financial Bid. Submission of document shall be effected by using DSC of appropriate class.

A. **Cost of “Bid document” & “Bid Security”** shall comprise

- (i) Cost of Bid Document (Online)
- (ii) Bid Security (Online)

B. **“Technical Bid”** shall comprise.

- (i) Declaration under the Official Secret Act, 1923
- (ii) Qualification Information and supporting documents,
- (iii) Certificates, undertakings, affidavits,

C. **“Financial Bid”** shall comprise.

- (i) Priced Bill of Quantities

12. PROPOSAL BY THE BIDDER:

- 12.1. In the E-Procurement Portal, an intelligent Bill of Quantity in Microsoft Excel format (in .xls format) shall be made available to the bidder.
- 12.2. For Item rate tenders the bidder shall fill in rates in figures and should not leave any cell blank. The line item total in words and the total amount shall be calculated by the system and shall be visible to the bidder.
- 12.3. In case of percentage tender, the bidder shall write his name in the space provided in the specified location in the protected Bill of Quantities (BoQ) and type percentage excess or less up to two decimal places only in the designated cell and activate “less” or “excess” to indicate how much his price offer is excess or less than the estimated amount.
- 12.4. The bidder shall bid for the whole works as described in the Bill of Quantities. The Estimated Cost is excluding GST and including CESS, Royalty and Cost of Conveyance. The rates of item basing on which estimated cost has been derived are excluding GST on different components to arrive at such rates. GST as applicable on Works Contract shall be paid over the bill amount at the time of payment of bill.
- 12.5. Bidders shall submit offers that fully comply with the requirements of the bidding documents, including the Conditions of Contract basic technical design as indicated in the drawing and specification. Conditional offer or alternative offers will not be considered in the process of bid evaluation.
- 12.6. The Estimated Cost is excluding GST and including CESS, Royalty and Cost of Conveyance. The rates of item basing on which estimated cost has been derived are excluding GST on different components to arrive at such rates. GST as applicable on Works Contract shall be paid over the bill amount at the time of payment of bill.
- 12.7. In the case of any bid where unit rate of any item/items appear unrealistic, such bid will be considered as unbalanced and in case the bidder is unable to provide satisfactory explanation such a tender is liable to be disqualified and rejected.
- 12.8. The contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the Tender and of the rates and prices stated in the Bill of Quantities, all of which shall, except in so far as it is otherwise provide in the Contract, cover all his obligations under the Contract (including those in respect of the supply of goods, materials, plant & services or of contingencies for which there is a Provisional Sum) and all matters and things necessary for the proper execution and completion of the work and the remedying of any defects therein.
- 12.9. The contractor shall confirm in all respects, by giving all notices and paying all fees, with the provisions of:
 - (i) Any national or State Statue, Ordinance, or other Law, or any regulation, or bye-law of any local or other duly constituted authority in relation to the execution and completion of the works and remedying of any defects therein, and

- (ii) The rules and regulations of all public bodies and companies whose property rights are affected or may be affected in any way by the works.

13. CURRENCIES OF BID AND PAYMENT:

- 13.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

14. VALIDITY:

- 14.1. Bids shall remain valid for a period not less than 90 days or the period mentioned in the Contract Data, from the date of opening as specified in the notice inviting the Bid. A Bid valid for a shorter period shall be rejected by the Engineer-in-charge as non-responsive.
- 14.2. In exceptional circumstances, prior to expiry of the original time limit, the Officer inviting the Bid may request the bidders to extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable or by e-mail. A bidder may refuse the request without any risk of forfeiture of his bid security.
- 14.3. A bidder agreeing to the request will not be required or permitted to modify his bid but will be required to extend the validity of his bid security for the period of the extension.

15. (A) BID SECURITY AND ADDITIONAL PERFORMANCE SECURITY:

- 15.1 The Bidder shall furnish, as part of his Bid, a Bid security for the amount mentioned under NIT/Contract Data. Bidder intending to participate in the bid on-line shall have to remit their Earnest Money deposit/Bid Security of the amount specified for the work in the table col.6 of the Tender Call Notice in online mode, The bidders with pending or failure payment status shall not be able to submit their bid. State Procurement Cell, NIC, Designated Banks shall not be held responsible for such pendency or failure.

The Successful bidder who has quoted less bid price / rates than the estimated cost put to tender shall have to furnish the Additional Performance Security (APS) in shape of N.S.C./ Post Office Savings Bank Account/ Post Office Time Deposit Account/ Kishan Vikas Patra Bank Guarantee in favour of the Divisional Officer from any Nationalized Scheduled Bank in India counter guaranteed by its local branch at Bhubaneswar/ e-Bank Guarantee executed on the National e-Governance Services Limited (NeSL) Digital Document Execution Portal/ Insurance Surety Bond issued by an Insurance Company authorized by the Insurance Regulatory and Development Authority of India (IRDAI) within 7 days of issue of Letter of Acceptance (LoA), otherwise the bid of the successful bidder shall be cancelled and the Earnest Money Deposit / Bid Security shall be forfeited. Further proceedings for blacklisting shall be initiated against the bidder.

The Additional Performance Security shall be in the favour of officer as named in Contract Data and shall be valid for a period of 45 days beyond the validity of the bid.

- 15.3 Combined bid security for more than one work is not acceptable.
- 15.4 In the case of schedule caste/schedule tribe contractors, Government Undertakings, Co-operatives Societies, Diploma or Degree holders in Engineering who are registered with the Government of Odisha, the rules framed by government from time to time about Cost of Bid documents, Bid security, availing price preference facilities, performance security will apply.

15.5 The Bid Security may be forfeited

- a. If the bidder withdraws the bid after opening of the bid but within the period of validity.
- b. If the Bidder seeks any revision of rates or back out of the bid claiming for not having referred to any or all documents provided in the Bid by the Officer Inviting the Bid
- c. If the Bidder fails to submit the original documents with in the stipulated date pursuant to clause 3.1,
- d. In the case of a successful bidder, if the bidder fails within the specified time limit to
 - (i) Sign the Agreement
 - (ii) Furnish the required Performance Security including additional performance security if any.

16. (B) FORMAT AND SIGNING OF BID:

- 16.1. The bidder can download the tender of his choice and save it in his system and undertake the necessary preparatory work off-line and upload the completed tender at his convenience before the closing date and time of submission. The bidder shall only submit single copy of the required documents and Price Bid in the portal. In the Financial bid, the bidder cannot leave any figure blank. He has to only write the figures, the words will be self-generated. The Bidders are advised to up load the completed Bid document well ahead of the last date & time of receipt to avoid traffic rush failure in the network
- 16.2. The Bidder shall go through the Bid carefully and list the documents those are asked for submission. He shall prepare all documents including cost of Bid Document, Bid Security, , price bid etc. and store in the system.
- 16.3. The bidder shall log on to the portal with his DSC and move to the desired tender for up loading the documents in appropriate place one by one simultaneously checking the documents. Once the Bidder makes sure that all the documents have been up-loaded in appropriate place he clicks the submit button to submit the bid to the portal.

- 16.3.1. Tender cannot be pre-opened and cannot be submitted after due date and time. Therefore only after satisfying that all the documents have been uploaded, the Bidder should activate submit button.
- 16.3.2. In the e-procurement process each processes are time stamped. The system can identify each individual who has entered in to the portal for any bid and the time of entering in to the portal.
- 16.3.3. The “online bidder” shall digitally sign on all the documents, certificates uploaded by him, owing responsibility for there correctness/authenticity as per IT ACT 2000.If any of the information furnished by the bidder is found to be false /fabricated/bogus, his EMD/Bid Security shall stand forfeited and his registration in the portal shall be blocked and the bidder is liable to be blacklisted.
- 16.3.4. The Bidder should ensure clarity of the document up loaded by him to the portal especially the scanned documents by taking out sample printing. Non-submission of legible documents may render the bid non-responsive. However, the Officer inviting the Bid if so desires can ask for legible copies or original copies of scanned documents only for verification with in a stipulated period provided such document in no way alters the Bidder’s price bid. If the Bidder fails to submit the original documents and Additional Performance Security within the stipulated date as defined in tender call notice, his bid security shall be forfeited.

D. SUBMISSION OF BIDS

17. BID SUBMISSION

- 17.1. The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/tender.
 - i. The bidder shall carefully go through the tender and prepare the required documents. The bid shall have a Technical Bid & a Financial Bid. The Technical bid generally consists of GST/ PAN, Registration Certificates, Affidavits, Joint venture agreement along with other required documents as per Clause No.1.7 of Instruction to the bidder for e- procurement, Works in hand, List of machineries along with the proof of ownership, the lease deed along with proof of ownership documents (i.e. Tax Invoice) for machineries of the Company/ person providing equipment/ lease deed and any other information required by OIT. The financial bid shall consist of the Bill of Quantities (BOQ).
- 17.2. Bidder are to submit original BoQ (in .xls format) uploaded by procurement officer publisher (Officer inviting tender) after entering the relevant fields without any alteration/deletion/modification. Multiple BoQ submission by the bidder shall lead to cancellation of bid. In case of item rate tender, bidders shall fill in there rates other than zero value in the specified cell without keeping it blank. In the percentage rate tender the bidder quoting zero percentage is valid and will be taken at par with the estimated rate of work put to tender. The Successful bidder who has quoted less bid price / rates than the estimated cost put to tender shall have to furnish the Additional Performance Security (APS) in shape of Term Deposit Receipt pledged in favour of the concerned Executive Engineer / Bank Guarantee in favour of the concerned Executive Engineer, from any Nationalized/ Scheduled Bank in India counter guaranteed by its local branch at Bhubaneswar within 7 days of issue of Letter of Acceptance (LoA), otherwise the bid of the successful bidder shall be cancelled and the Earnest Money Deposit / Bid Security shall be forfeited. Further proceedings for blacklisting shall be initiated against the bidder

- 17.3. The bidder shall upload the scanned copy/copies of document in support of eligibility criteria and qualification information in prescribed format in portable document format (PDF) to the portal in the designated locations of Technical Bid.
- 17.4. The bidder shall write his name in the space provided in the specified location in the Protected Bill of Quantities (BoQ) published by the officer inviting tender. The bidder shall type rates in figure only in the rate column of respective items without any blank cell in the rate column in case of item rate tender and type percentage excess or less up to two decimal place only in case of percentage rate tender.
- 17.5. The Bidder should ensure clarity/legibility of the document uploaded by him in the portal.
- 17.6. The bidder should check the system generated confirmation statement on the status of submission.
- 17.7. The Bid shall be received in encrypted format by the system which can only be decrypted / opened by the authorized openers only on or after the due date and time.

18. DEADLINE FOR SUBMISSION OF THE BIDS :

- 18.1. Bids cannot be submitted after due date and time. The bids once submitted cannot be viewed, retrieved or corrected. The bidder should ensure correctness of the bid prior to uploading and take print out of the system generated summary of submission to confirm successful uploading of bid. The bid can not be opened even by the OIT or the Procurement Officer Publisher/Opener before the due date and time of opening.
- 18.2. The online bidding will remain active till the last date and time of the bid submission. Once the date and time (Server date and time) is over, the bidder will not be able to submit the bid. The date & time of bid submission shall remain unaltered even if the specified date for the submission of bids declared a holiday for the Officer inviting the Bid.
- 18.3. The officer inviting the bid may extend the deadline for submission of bids by issuing an amendment in accordance with Sub-Clause 9, in which case all rights and obligations of the officer inviting the bid & Engineer-in-Charge and the bidders previously subject to the original deadline will then be subject to the new deadline.

19. LATE BIDS :

- 19.1. The system shall reject submission of any bid through portal after closure of the receipt time. For all purpose the server time displayed in the e-procurement portal shall be the time to be followed by the bidder and concerned officers.

20. MODIFICATION AND WITHDRAWAL OF BIDS :

- 20.1. In the E-Procurement Portal, it is allowed to modify the bid any number of times before the final date and time of submission. The bidder shall have to log on to the system and resubmit the documents as asked for by the system including the price bid afresh. In doing so, the bids already submitted by the bidder will be removed automatically from the system and the latest bid only will be admitted. But the bidder should avoid modification of bid at the last moment to avoid system failure or malfunction of internet or traffic jam or power failure. If the bidder fails to submit his modified bids within the pre-defined time of receipt, the system shall consider only the last bid submitted.
- 20.2. In the E-Procurement Portal, withdrawal of bid is allowed. But in such case he has to write a letter with appropriate reasons for his withdrawal addressed to the Officer inviting the bid citing reasons for withdrawal and upload the scanned document to portal in the respective bid before the closure of receipt of the bid. The system shall not allow any withdrawal after expiry of the closure time of the bid.

- 20.3. The bidder should avoid submission of bid at the last moment to avoid system failure or malfunction of internet or traffic jam or power failure etc.

E. OPENING AND EVALUATION

21. OPENING OF THE BID:

- 21.1. Bid opening dates are specified during tender creation or can be extended vide corrigendum. These dates are available in IFB, tender document as well as the home page of portal. Bid opening can be done by the authorized users which are defined during the tender publication / approval stage. The bids are encrypted using their public keys and can be decrypted only on or after the Bid Opening due date. The bid opener's private key will be required to open the bids and all the openers have to log on to the portal during that time to decrypt the bid submitted by the bidder. Bids cannot be opened before the specified date and time.
- 21.1.1. The bidders who participated in the on line bidding can witness opening of the bid from any system logging on to the portal with the DSC away from opening place. Contractors are not required to be present during the bid opening at the opening location if they so desire.
- 21.1.2. Each activity is date and time stamped with user details. For time stamping, server time is taken as the reference.
- 21.2. In the event of the specified date of bid opening being declared a holiday for the Officer inviting the Bid/Engineer-in- Charge, the bids will be opened at the appointed time on the next working day.
- 21.3. In case bids are invited for more than one package, the order for opening of the "Bid" shall be that in which they appear in the "Invitation for Bid".
- 21.4. The Additional Performance Security shall be verified regarding the genuineness of the financial instruments from the concerned banks / Post Offices of branch of the banks / post offices located at the place of signing of agreement or at the nearest branch of the bank / post office.
- 21.4.1. Combined bid security for more than one work is not acceptable.
- 21.5. The Bid openers; who have been pre-defined shall log on to the portal with their respective DSC. Unless all the Officers who have been declared as Opening officers, log on to the portal with their DSC the Tender can not be opened.
- 21.5.1. All the opened bids shall be downloaded and printed for taking up evaluation. The officer authorized to open the tender shall sign and number on each page of the documents downloaded and furnish a certificate that "the documents as available in the portal containing---_nos of pages"
- 21.5.2. The electronically submitted bids may be permitted to be opened by the predefined Bid opening officer from their new location if they are transferred after the issue of Notice Inviting Bid and before bid opening. Further, action on bid documents shall be taken by the new incumbent of the post.
- 21.5.3. Immediately (usually within 3 or 4 days), the Evaluating Officers; predefined in the system for the bid, will finalize the list of responsive bidders. They will log on to the site with their DSC and record their comments on the Technical evaluation page in the system. The Officer Inviting the Bid is also the accepting authority,

shall log on to the system with his digital signature and check the technical evaluation. He can either accept or pass on to the evaluating officers for re-evaluation. Upon acceptance of technical evaluation by the Accepting authority in the system, the system shall automatically generate letter to all the responsive bidders and the system shall forward the letter to all the responsive bidder that their technical bid has been evaluated responsive with respect to the data/information furnished by him and the letter shall also intimate him the date & time of opening of financial bid. The Successful bidder who has quoted less bid price / rates than the estimated cost put to tender shall have to furnish the Additional Performance Security (APS) in shape of Term Deposit Receipt pledged in favour of the concerned Executive Engineer / Bank Guarantee in favour of the concerned Executive Engineer, from any Nationalized/ Scheduled Bank in India counter guaranteed by its local branch at Bhubaneswar within 7 days of issue of Letter of Acceptance (LoA), otherwise the bid of the successful bidder shall be cancelled and the Earnest Money Deposit / Bid Security shall be forfeited. Further proceedings for blacklisting shall be initiated against the bidder. The system shall also inform the non-responsive bidders in their e-mail ID that their bid has been found non-responsive.

- 21.6. The Technical evaluation of all the bids will be taken up only as per the information furnished by the Bidders. But evaluation of the bid does not exonerate the lowest bidder from checking their original documents and if at a later date the bidder is found to have misled the evaluation through wrong information, action as per clause No. 127 shall be taken against the bidder/contractor.
- 21.7. After technical evaluation of the bidders and selection of the qualified bidders, the financial bids of the technically qualified bidders shall be opened on the due date of opening. Members of the bid opening committee log on to the system in sequence and open the financial bids for the technically qualified bidders. The opening of financial bid by the opening officer using their DSC shall decrypt the financial bids.
- 21.7.1. Opening of price bid and evaluation of lowest bidder is subject to satisfaction of other qualification information asked for in the bid pursuant to Clause-3.
- 21.7.2. The Financial Bid will be opened on the notified date & time in the presence of bidders or their authorised representative who wish to be present.
- 21.7.3. At the time of opening of "Financial Bid", the names of the bidders whose bids were found responsive will be announced. The bids of only those bidders will be opened. The remaining bids will be rejected.
- 21.7.4. The responsive bidders' names, the bid prices, the item wise rates the total amount of each item, any discounts and withdrawals, and such other details as the officer inviting the tender may consider appropriate, will be announced by him or his authorized representatives at the opening.
- 21.7.5. Special rebate/discount offer if any uploaded to the system shall be declared and recorded first.
- 21.7.6. The Financial bid of the bidders shall be opened one by one by the designated officers. Procurement officer- Openers shall sign on each page of the downloaded BoQ and Comparative Statement and furnish a certificate to that respect. The system shall auto-generate the Comparative statement.
- 21.7.7. The Bidder can witness the principal activities and view the documents/summary reports for that particular work by logging on to the portal with his DSC from anywhere.

21.7.8. In case of non-responsive tender the officer inviting tender should complete the e-procurement process by uploading the official letter for cancelled/re-tender.

21.7.9. System provides an option to Procurement Officer, Publisher for reconsidering the rejected bid with the approval of concerned Chief Engineer/Head of Department.

22. PROCESS TO BE CONFIDENTIAL:

22.1. Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful bidder has been announced. Any effort by a bidder to influence the officer inviting the bid, processing of bids or award decisions may result in the rejection of his bid.

23. CLARIFICATION OF BIDS:

23.1 To assist in the examination, evaluation, and comparison of bids, the officer inviting the bid may, at his discretion, ask any bidders in writing/online (in their registered e-mail ids) to clarify on the uploaded documents provided in the Technical Bid, if necessary, with respect to any doubts or illegible documents. The officer inviting tender may ask for any other document of historical nature during Technical Evaluation of the tender, Provided in all such cases, furnishing of any document in no way alters the Bidder's price bid. Non submission of legible documents may render the bid nonresponsive. The authority inviting bid may reserve the right to accept any additional document. The bidder will respond in not more than 7(seven) days of issue of the clarification letter, failing which the bid of the bidder will be evaluated on its own merit.

23.2 Subject to sub-clause 23.1, no bidder shall contact the officer inviting the bid on any matter relating to his bid from the time of the opening to the time the contract is awarded. If the bidder wishes to bring additional information to the notice of the officer inviting the bid, it should do so in writing.

24. EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS:

24.1. During the detailed evaluation of "Technical Bids", the officer inviting the bid will determine whether each bid:-

- Whether the Bid security is confirmed by issuing institution/bank.
- Has submitted legible documents for evaluation
- Meets the eligibility criteria defined in Clause 3 and;
- Is substantially responsive to the requirements of the bidding documents.

24.2. During the detailed evaluation of the "Financial Bid", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications and drawings.

24.3. A substantially responsive "Financial Bids" is one, which conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one

- Which affects in any substantial way the scope, quality, or performance of the works.
- Which limits in any substantial way, inconsistent with the bidding documents, the right of the officer inviting the bid or the bidder's obligations under the contract or
- Whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

- 24.4. If a "Financial Bid" is not substantially responsive, it will be rejected by the officer inviting the bid, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.
- 24.5. On opening of the price bid the system shall arrange the financial bids in order of their value (L1 first, followed by L2, L3 ...) for subsequent evaluation. The evaluation status (Sheet) will be visible to all the participating bidders after opening on their respective logins. Each activity is recorded in the system with date and time stamping.
- 24.6. For examination, evaluation and comparison of bids, the officer inviting the bid may, at his discretion, ask the lowest bidder for clarification of his rates including reduction of rate on negotiation and breakdown of unit rates.

F. AWARD OF CONTRACT

25. AWARD CRITERIA:

- 25.1. The officer in charge will award the contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has offered the lowest evaluated price.
- 25.2. The Employer/Engineer-in-Charge shall notify acceptance of the work prior to expiry of the validity period by cable, telex or facsimile or e mail confirmed by registered letter. This letter of acceptance will state the sum that the Engineer-in-Charge will pay the contractor in consideration of execution completion of the Works by the contractor as prescribed by the contract & the amount of Performance Security and Additional Performance Security required to be furnished. The issue of the letter of Acceptance shall be treated as closure of the Bid process and commencement of the contract.
- 25.3. On acceptance of the tender, the Contractor shall name in writing his accredited representative(s) who would be responsible for taking instructions from the Engineer-in-Charge.
- 25.4. Competent Authority on behalf of Governor of Orissa reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.
- 25.5. The successful bidder registered under other State Government / MES / Railways / CPWD in equivalent rank has to register under state PWD before signing of the agreement.

26. OPTIONS IF THE BIDDER BACKS OUT FROM BIDDING PROCESS:

- 26.1. If the L-1 bidder does not turn up for agreement after finalization of the tender, then he shall be debarred from participation in bidding for 3(three)years and action will be taken to blacklist the contractor. Besides the consortium/JV/Firm where such an agency/firm already happens to be or is going to be a partner/member/proprietor, he/they shall neither be allowed for participation in bidding for three years nor his/there application will be considered for registration and action will be initiated to blacklist him/them. In that case, the L-2 bidder, if fulfils other required criteria, would be called for drawing agreement for execution of work subject to condition that the L-2 bidder negotiates at par with the rate quoted by the L-1 bidder and furnish the required Additional Performance Security (If required), otherwise the tender will be cancelled.
- 26.2. The bidding process shall be deemed to be complete till the date of issue of letter of acceptance. If the bidder fails to sign the agreement with in the stipulated period mentioned under clause 27.2, his bid security shall stand forfeited.

27. RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS:

- 27.1 The competent authority on behalf of the Governor of Odisha does not bind him to accept the lowest or any other tender and reserves to him the authority to reject any or all the tenders received without assigning any reason.
- 27.2 All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.

28. NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT:

- 28.1. In the E-Procurement Portal, the system shall generate the template of award letter, the Officer Inviting the Bid shall mention the amount of Performance Security and additional security required to be furnished in the letter, and intimate the bidders in his e-mail ID. The issue of the letter of acceptance shall be treated as closure of the Bid process and commencement of the contract.
- 28.2. The bidder shall within 15 days of issue of letter of acceptance, furnish the Performance security in the prescribed form & the work programme & shall sign the agreement in prescribed format, failing which the Engineer-in-Charge shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the Bid Security absolutely. The agreement will incorporate all agreements between the officer inviting the bid and the successful bidder.
 - 28.2.1. Following documents shall form part of the agreement.
 - a. The notice inviting bid, all the documents including additional conditions, specifications and drawings, if any, forming the bid as issued at the time of invitation of bid and acceptance thereof together with any correspondence & documents leading thereto & required amount of performance security including additional performance security as per sub clause 27.2 hereof.
 - b. Standard Bid Document P.W.D. Form F2/P1 as the case may be
- 28.3. The letter to proceed with the work shall be issued by Engineer-in-charge only after signing of the agreement. The notification of award will constitute the formation of the contract subject only to the furnishing of performance security and additional performance security in accordance with the provisions of the agreement.
- 28.4. On acceptance of the composite bids by the competent authority the letter of award will be issued by the Engineer-in-Charge of the major component of the work on behalf of the Governor of Odisha, making it clear in the letter of award that the contractor will have to execute separate agreements for different components of work with the concerned officers of the respective discipline (Designation to be given).
- 28.5. Upon signing of the agreement by the successful bidder, the Engineer-in-Charge will promptly notify the other bidders that their bids have been unsuccessful.

29. CORRUPT OR FRAUDULENT PRACTICES:

- 29.1. The Engineer-in-Charge will reject a proposal for award if he determines that the bidder recommended for award has been engaged in corrupt or fraudulent practices in competing for the contract in question. He will report to the Officer Inviting Bid / next higher authority. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.

30. BLOCKING OF PORTAL REGISTRATION

- 30.1. If the registration certificate of the contractor is cancelled/suspended by the registering authority/blacklisted by The competent authority his portal registration shall be blocked automatically on receipt of information to that effect.
- 30.2. The portal registration blocked in the ground mentioned in the above Para-30.1 shall be unblocked automatically in receipt of revocation order of cancellation/ suspension/ blacklisting from the concerned authority.
- 30.3. The Officer Inviting Tender shall make due inquiry and issue show cause notice to the concerned contractor who in turn shall furnish his reply, if any, within a fortnight from the date of issue of show cause notice. Thereafter the officer inviting tender is required to issue intimation to the defaulting bidder about his unsatisfactory reply and recommend to the Chief Manager (Tech.) for blocking of portal registration within 10 days of intimation to the defaulting bidder regarding his unsatisfactory reply with intimation to the Registering Authority and concerned Chief Engineer/ Heads of Office if any of the following provisions are violated.
- 30.3.1. Fails to furnish original Technical/Financial (Tender Paper Cost, EMD/Bid security) instruments before the designated officer within the stipulated date and time.
- 30.3.2. Backs out from the bid on any day after the last date of receipt of tender till expiry of the bid validity period.
- 30.3.3. Fails to execute the agreement within the stipulated date.
- 30.3.4. If any of the information furnished by the bidder is found to be false/fabricated bogus.

Accordingly, the Officer Inviting Tender shall recommend to the Chief Manager (Tech.) State Procurement Cell, Odisha for blocking of portal registration of bidder and simultaneously action shall also be initiated by OFFICER INVITING TENDER for blacklisting as per Appendix-XXXIV of OPWD Code, Volume-II.

31. GUIDELINES FOR UNBLOCKING OF PORTAL REGISTRATION:

- 31.1. UNBLOCKING OF PORTAL REGISTRATION:
Unblocking of portal registration of a contractor shall be done by a Committee consisting of the following members.
- | | | |
|--------------------------------|---|----------|
| EIC(Civil)-cum-CPO | - | Chairman |
| Engineer-in-Chief (WR) | - | Member |
| Concerned Chief Engineer | - | Member |
| Sr.Manager (Finance), SPC | - | Member |
| Officer Inviting Tender | - | Member |
| Chief Manager (Technical), SPC | - | Convener |
- 31.2. The Chief Manager (Tech.) State Procurement Cell will be the convener and he will maintain all records for this purpose. The Committee shall meet not less than once in a month if required and shall consider the recommendation of the Officer Inviting Tender for unblocking of portal registration. The quorum of the meeting will be four.
- 31.3. The minimum period of blocking of Portal Registration shall in no case be less than 90 days. After blocking of Portal Registration, the contractor whose portal registration has been blocked may file application to the concerned officer inviting tender showing sufficient ground for unblocking of his portal registration along with a Treasury challan showing deposit of Rs.10,000/- (Rupees ten thousand) only (non-refundable) under the head of account '0059-Public Works' as processing fees. The officer inviting tender shall forward the application filed by the contractor to the Chief Manager (Tech.), State Procurement Cell.

- 31.4. On receipt of recommendation from the concerned Chief Engineer along with the copy of challan as mentioned above, the Chief Manager (Tech.) being the member Convener of the Committee shall place the case before the Committee for examination and taking a decision in this regard. After examination the committee may recommend for unblocking of the portal registration of said contractor if the Committee is satisfied that the fault committed by the contractor is either unintentional or done for the first time.
- 31.5. After scrutiny by the State Procurement Cell if it is found that the portal registration of a contractor has been blocked for the 2nd time the Chief Manager (Tech), SPC may not consider his case to be placed before the Committee and may advise the concerned officer inviting tender to issue show cause notice to the contractor asking him to explain as to why his portal registration shall not remain blocked. On receipt of show cause reply from the contractor the officer inviting tender shall examine the same and if considered proper he may report to the Chief Manager (Tech), SPC along with his views furnishing the copy of the show cause reply for placement of the same before the Committee for taking a decision in respect of blocking/unblocking. If the committee found that the contractor is in habit of committing such fault again and again intentionally the committee may advise the concerned officer inviting tender to initiate proceeding for blacklisting as per the existing rule.

32. PRE-BID CONFERENCE

- 32.1 A Pre-Bid Meeting, open to all prospective bidders, will be convened by the **Director, Ports and Inland Water Transport, Odisha, Bhubaneswar** on **Dt. 24.07.2026** at **11.30 A.M.** in the Conference Hall of the Directorate of Ports & IWT.
- 32.2 The purpose of this meeting will be to discuss and answer to the queries on any matter that may be raised by the bidder at that stage.
- 32.3 The bidders are requested to submit any query in writing, on-line through e-mail to reach the office of **Director, Ports and Inland Water Transport, Odisha, Bhubaneswar** during the clarification seeking period as mentioned in NIT before pre-bid meeting.
- 32.4 Any modification of the bid documents that may become necessary as a result of the Pre-Bid Meeting shall be made by the Employer, by issuing an addendum to Bid Documents, which eventually become a part of the Agreement.
- 32.5 The proceedings of the pre-bid Meeting will be uploaded in the designated location of website and shall be treated as a part of bid document. No further information relating to pre-bid shall be provided to the bidder.
- 32.6 Non-attendance at the pre-bid meeting shall not be a cause for disqualification of the bidder.

**PROCEDURE FOR ELECTRONIC RECEIPT, ACCOUNTING AND
REPORTING OF COST OF TENDER PAPER AND EARNEST MONEY DEPOSIT
ON SUBMISSION OF BIDS**

1. The State Government have formulated rules and procedures for Electronic receipt, accounting and reporting of the receipt- of Cost of Tender Paper and Earnest Money Deposit on submission of bids through the e-procurement portal of Government of Odisha i.e. "<https://tendersodisha.gov.in>".
2. Electronic receipt of cost of tender paper has been successfully tested through SBI payment gateway. Now it has been decided to introduce electronic receipt of **Cost of Tender Paper and Earnest Money Deposit on submission of bids** through payment gateway of designated banks such as SBI/ICICI Bank/HDFC Bank for all Government Departments, State PSUs. Statutory Corporations, Autonomous Bodies and Local Bodies etc. in phases (ANNEXURE-I). The process outline as well as accounting and reporting structure are indicated below :
 - a) It will be carried out through a single banking transaction by the bidder for multiple payments like **Cost of Tender Paper and Earnest Money Deposit on submission of bids**.
 - b) Various payment modes like Internet banking/ NEFT/RTGS of Designated Banks and their Aggregator Banks as well can be accessed by the intending bidders.
 - c) Reporting and accounting of the e-receipts will be made from a single source.
 - d) Credit of receipts into the Government accounts and to the designated Bank account of the participating entities indicated in Para 2 above would be faster.
3. Only those bidders who successfully remit their **Cost of Tender Paper and Earnest Money Deposit on submission of bids** would be eligible to participate in the tender/bid process. The bidders with pending or failure payment status shall not be able to submit their bid. Tender inviting authority, State Procurement Cell, NIC, the designated Banks shall not be held responsible for such pendency or failure.
4. **Banking arrangement:**
 - a) Designated Banks (SBI/ICICI Bank/HDFC Bank) payment gateway are being integrated with e- Procurement portal of Government of Odisha (<https://tendersodisha.gov.in>)
 - b) The Designated Banks participating in **Electronic receipt, accounting and reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids** will nominate a Focal Point Branch called e-FPB, who is authorized to collect and collate all e-Receipts. Each such branch will act as the Receiving branch and Focal Point Branch notwithstanding the fact that the bidder might have debited his account in any of the bank's branches while making payment.
5. **Procedures of bid submission using electronic payment of Tender Paper Cost and EMD by bidder:**
 - a) **Log on to e-Procurement Portal:** The bidders have to log onto the Odisha e-Procurement portal (<https://tendersodisha.gov.in>) using his/her digital signature certificate and then search and then select the required active tender from the "Search Active Tender" option. Now submit button can be clicked against the selected tender so that it comes to the "My Tenders" section.
 - b) **Uploading of Prequalification/Technical/Financial bid:** The bidders have to upload the required Prequalification /Technical/Financial bid, as mentioned in the bidding document and in line with Works Department office memorandum no.7885, dt.23.07.2013.
 - c) **Electronic payment of tender paper cost and EMD:** Then the bidders have to select and submit the bank name as available in the payment options;
 - i. A bidder shall make electronic payment using his/her internet banking enabled account with designated Banks or their aggregator banks.
 - ii. A bidder having account in other Banks can make payment using NEFT/RTGS facility of designated Banks.

Online NEFT/RTGS payment using internet banking of the bank in which the bidder holds his account, by adding the account number as mentioned in the challan as an interbank beneficiary.

- d) **Bid submission:** Only after receipt of intimation at the e-Procurement portal regarding successful transaction by bidder the system will activate the 'Freeze Bid Submission' button to conclude the bid submission process.
- e) **System generated acknowledgement receipt for successful bid submission:** System will generate an acknowledgement receipt for successful bid submission. The bidder should make a note of 'Bid ID' generated in the acknowledgement receipt for tracking their bid status.

6. Settlement of Cost of Tender Paper;

- a) **Cost of Tender Paper:** In respect of Government receipts on account of **Cost of Tender Paper**, the e-Procurement portal shall generate a MIS for the State Procurement Cell (SPC). The MIS will contain an abstract of the cost of tender paper collected with reference to **Bid Identification Number**. The State Procurement Cell shall generate Bank-wise-head-wise Challans separately for **Cost of Tender Paper** and instruct the designated Banks to remit the money to the State Government account under different heads. In respect of the cost of tender paper received through the e-procurement portal, the remittance to the Cyber Treasury account will be made to the **Head of Account 0075-Misc, General Services-800-Other Receipts -0097-Misc. Receipts-02237- Cost of Tender Paper**.
- b) For the time being, the State Procurement Cell (SPC) will use over the counter payment facility of the Odisha Treasury portal. Thereafter, remittance through NEFT & RTGS will be facilitated through the Odisha Treasury portal.
- c) Similarly, in case of State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc., **Cost of Tender Paper**, the e-Procurement portal shall generate a MIS for the State Procurement Cell (SPC). The MIS will contain an abstract of the cost of tender paper collected with reference to **Bid Identification Number**. The State Procurement Cell shall generate Bank-wise list of challans and instruct the designated Banks to remit the money through the Odisha Treasury portal. The cost of tender papers will be credited to the registered Bank account of the concerned State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc.
- d) Bank will refund (in case the Tender Inviting Authority (TIA) issues such instructions) the tender fee, EMD to the bidder, in case the tender is cancelled before opening of Bid as per direction received from TIA through e-procurement system.
- e) Back-end Transaction Matrix of Electronic receipt of Cost of Tender Paper and Earnest Money Deposit on submission of bids is enclosed in the Annexure.

7. Settlement of Earnest Money Deposit on submission of bids:

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

8. Forfeiture of EMD:

Forfeiture of **Earnest Money Deposit on submission of bid** of defaulting bidder is occasioned for various reasons.

- a) In case the **Earnest Money Deposit on submission of bid** is forfeited, the e-Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority.
- b) The Tender inviting authorities of the Government Departments will deposit the forfeited **Earnest Money Deposit on submission of bid**, in the State Government Treasury under

the appropriate head (8782-Cash Remittances and Adjustments between the officers rendering accounts to the same Accounts Officer-102- P.W. Remittances-1683-Remittances-91028-Remittances into Treasury) after taking the amount as a revenue receipt in their Cash Book under the head 0075-Misc. General Services-00-101 – Unclaimed Deposits-0097-Misc, Receipts-02080-Misc. Deposits and submit the detail account to DAG (Puri) as a deposit of the Division.

- c) By clicking submit button, system will initiate the forfeiture of EMD. System will not allow the evaluator to edit the initiation after clicking the submit button. Forfeiture option can be carried out in phased manner like one bidder at a time.

9. Role of the Banks:

- a) Make necessary provision / customizations at their end to enable the provision for online payments / refunds as per this document.
- b) Provide necessary real-time message to bidders regarding successful or unsuccessful transactions during online payment processes and redirect them to e-Procurement website with necessary transaction reference details enabling them to submit their bids.
- c) The bank shall ensure transfer of funds from the pooling account to the Government Head/current account of PSUs/ULBs within the next bank working day as per the directions generated from e-Procurement portal.
- d) Bank should provide timely reports and reference details to NIC enabling them to carry out their role as stated below.
- e) Refund of amount to bidders as per the XML file provided by e-Procurement system on the next bank working day from the date of generation of the XML file and also provide a confirmation to NIC on the same.

10. Role of State Procurement Cell:

- a) Communicate requirements of Government departments/ State PSUs/ Autonomous Bodies/ ULBs online payment requirements to National Informatics Centre / the authorized Banks for mapping/ customization.
- b) In every working day, the State Procurement Cell shall generate MIS from the e-Procurement portal to ascertain the tender paper cost received in the e-Tendering process separately bank-wise for the Government Department and the PSUs/ULBs. The SPC shall generate bank-wise separate online challans from the Odisha Treasury portal and make the remittance through over the counter facility or NEFT/RTGS (as and when this functionality is available in Treasury portal) and issue instruction to the bank for remittance of the receipt to the State Government account.
- c) The State Procurement Cell shall be responsible for providing challan details and MIS in respect of the remittance towards tender paper cost to the Tender inviting authorities for their record.
- d) State Procurement Cell shall monitor the progress of e-Tendering by different Government departments / State PSUs/ Autonomous Bodies / ULBs through an MIS. State Procurement Cell shall monitor and send monthly progress reports to the Government.
- e) The e-Procurement system will generate a consolidated refund & settlement XML file as an end of the day activity.
- f) e-procurement system will provide a web service for payment gateway (PG) provider to pull the encrypted refund and settlement details in XML file against a day.
- g) Similarly, payment gateway (PG) provider will provide a web service to pull the refund and settlement status against a day
- h) e-procurement system will update the status accordingly for reconciliation report.

11. Role of National Informatics Centre :

- a) Customize e-Procurement software and web-pages of Government of Odisha (<https://tendersodisha.gov.in>) to enable the provision for electronic payment.
- b) The NIC, Odisha will modify / rectify the errors in electronic data relating to the Chart of Account.

- c) NIC will provide an interface to organizations to download the electronic receipt data.
- d) Enable automatic generation of daily XML files from e-Procurement system and ensure delivery of the same to the authorized Banks for enabling automatic refund/settlement of funds.
- e) NIC shall enable the e-Procurement portal to generate MIS as required for the State Procurement Cell in order to make remittance of the tender paper cost to the State Government account using the Odisha Treasury portal.

12. Role of Cyber Treasury:

- a) The cost of the tender paper deposited by the SPC using the Odisha Treasury Portal which will be accounted for by the Cyber Treasury and it shall submit the accounts to A.G (O) as per the established process.
- b) The Cyber Treasury will provide MIS as required to the SPC for the purpose of accounting and reconciliation of the electronic remittances made to the State Government account.

13. Redressal of Public grievances :

The State Procurement Cell, Odisha, National Informatics Centre, Odisha and the e-FPB will have an effective procedure for dealing with, public complaint for e-Receipt related matters. In case, any mistake is detected by any of the stakeholders in reporting of receipt of tender paper cost and EMD, either suo moto or on being brought to its notice, the State Procurement Cell, Odisha, National Informatics Centre, Odisha unit, Cyber Treasury and the bank will promptly take steps for rectification. The e-Focal Point Branch of the participating Banks, National Informatics Centre, Odisha and the State Procurement Cell, Odisha will notify the contact number and address of the Help Desk for resolution of any dispute regarding e-Receipt.

14. Applicability and modification of existing rules / orders:

The modalities prescribed in this Office Memorandum for downloading of tender paper, submission and rejection of bid, acceptance of Bids as well as refund and forfeiture of earnest deposit will be applicable for electronic submission of bids through e-procurement portal. Existing provisions regulating cost of tender paper, earnest money deposit in OPWD Code and OGFR would stand modified to the extent prescribed.

15. These arrangements would be made effective after signing of MoU between the designated Banks and the State Procurement Cell, firming up of Banking arrangements and technical integration between designated Bank and e-Procurement Portal.

ANNXURE-I

Back-end Transaction Matrix of Electronic receipt and remittance of Cost of Tender Paper and Earnest Money Deposit on submission of bids.

	Cost of Tender Paper on submission of bids	Earnest Money Deposit on submission of bids
Government Departments	I. The payment towards the cost of tender paper, in case Government Departments shall be collected in separate pooling accounts opened in Focal point Branch called e-FPB of respective designated banks [as stated in Para 2] at Bhubaneswar on T+1_day II. With reference to the notice inviting Tender/ Bid Identification Number, the amount so realized is to be remitted to Government Account under the Head of Account 0075-Misc. General Services-800-Other Receipts-0097-Misc. Receipts - 02237-Cost of Tender paper through Odisha Treasury Portal after opening of bid.	I. In case of tenders of Government Departments, amount towards Earnest Money Deposit on submission of bids shall be collected in a pooling account opened for this purpose at Focal Point Branch called e-FPB of respective designated banks at Bhubaneswar and the banks will remit the amount to respective bidder's account within two working days on receipt of instruction from TIA through refund and settlement of e-procurement system. II. In case of forfeiture of Earnest Money Deposit on submission of bids, the e- Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority within two working days of receipt of instruction from TIA.
	Cost of Tender Paper on submission of bids	Earnest Money Deposit on submission of bids
State PSUs Statutory Corporations, Autonomous Bodies and Local Bodies.	I. In case of State PSUs, Statutory corporations, Autonomous Bodies and Local Bodies etc. the amount towards Cost of Tender Paper, on submission of bids shall be collected in separate pooling accounts opened in Focal Point Branch called e-FPB of respective designated Banks at Bhubaneswar on T+1 days. II. The Paper cost will be transferred to the respective current accounts of concerned State PSUs, Statutory Corporation, Autonomous Bodies and Local Bodies etc. after opening of bid.	I. Amount towards EMD on submission of bids shall be collected in a separate pooling account of Focal Point Branch called e-FPB of respective designated banks at Bhubaneswar and the banks will remit the amount to respective bidder's account on receipt of instruction from TIA through refund and settlement of e-procurement system within two working days from receipt of such instruction. II. In case of forfeiture of Earnest Money deposit on submission of bids, the e-Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority within two working days of receipt of instruction from TIA.

DETAILED TENDER CALL NOTICE

DETAILED TENDER CALL NOTICE

1. **Sealed Percentage Rate Bids are invited in Double Cover System from the (Super)** Class contractors registered with the State Government and contractors of equivalent Grade / Class registered with Central Government / MES / Railways for execution of Civil works, on production of definite proof from the appropriate authority. in prescribed form to be eventually drawn in P.W.D. FORM P-1 for the work “**Construction of Fishing Harbor – Stage II at Astaranga (Nuagarh) in Puri district of Odisha**” at an estimated cost of **Rs.1,42,87,12,459/- (Rupees One Hundred Forty Two Crore Eighty Seven Lakhs Twelve Thousand Four Hundred Fifty Nine only)**.
 - a) This tender is consisting of composite work (Civil, Electrical & Plumbing) work only.
 - b) This detailed Tender Call Notice along with the clauses mentioned herein shall form a part of the contract and agreement.
 - c) Joint venture & Subletting contractors are not allowed to participate.
2. The Bid documents are available on official website of Government i.e. <http://tenders.ori.nic.in> from **15.07.2026 to 20.08.2026 up to 17.00 hours**. The last date and time of submission of Bid is as per contract data.
3. Bids received on “on line” shall be opened at **11.30 A.M. on 21.08.2026** in Directorate, Ports & IWT, Zone-A, Fortune tower (Ground Floor), Chandrasekharpur, Bhubaneswar-23 in presence of bidders who wish to attend.
4. The cost of bid documents of **Rs.10,000/-** remitted online Bid Security/EMD for **Rs.1,42,87,200/-** should be made online only. No other mode of payment towards cost of Bid Documents is acceptable and liable for rejection.
5. The bidder must possess compatible Digital Signature Certificate (DSC) of Class II or Class-III. The bid is to be submitted in **two covers**.
 - i. **Cover-I** is to contain scanned copy of Registration Certificate, PAN / GSTIN, MoU for electrical. List of similar nature of works, work in hand, list of machineries, affidavit, and all other documents required as per the relevant clauses of this DTCN. The contractor belonging to outside state of Odisha and not started business should submit an undertaking in the form of an Affidavit indicating therein that they are not registered under GSTIN as they have not started any business in the state and they have no liability under the Act. But before award of final contract, such bidders will have to produce the GSTIN clearance certificate in form GSTIN 612.
 - ii. **Cover-II** is to contain the **PRICE BID** duly filled in and signed by the bidder and scanned copy of Additional Performance Security as per the relevant clauses of this DTCN.
6. The intending bidders are required to produce documents viz Original Registration Certificate, GSTIN, PAN Card after opening of Bid for verification purpose in the latter stage along with the **original documents** relating to ownership and hiring of plants and machineries mentioned at **Schedule-C as per Annexure-I**, preferably **within 05 (Five) working days after opening of the Technical Bid** i. Furnishing scanned copy of such documents along with the Technical Bid is mandatory otherwise his / her bid shall be declared as non responsive and thus liable for rejection.
7.
 - (i) The Contractors are required to furnish evidence of ownership of principal machineries/ equipments in **Schedule-C as per Annexure-I for which contractor shall have to secure minimum 80% of marks failing which the tender shall be liable for rejection.**
 - (ii) In case the contractor executing several works he is required to furnish a time schedule for

movement of equipment/machinery from one site to work site of the tendered work in **Annexure-IV of Schedule-C**.

- (iii) The contractor shall furnish ownership documents for those machineries which he is planning to deploy for the tendered work if these are not engaged and produce certificate from the Executive Engineer as per **Annexure – III of Schedule-C** under whom these are deployed at the time of tendering as to the period by which these machines are likely to be released from the present contract. Certificate from the Executive Engineer of Government of Odisha or Engineer-in-Charge of the project (in case of non-Government projects) under whose jurisdiction the work is going on, shall not be more than 90 days old on the last date of receipt of tender
- ~~(iv) In case the contractor proposes to engage machineries and equipments as asked for in the tender document, owned or hired but deployed outside the State, he/she is required to furnish additional 1% EMD /Bid Security. The entire bid security including the additional bid security shall stand forfeited in case the contractor fails to mobilize the machineries within a period as to be able to execute an item of work as per original programme which will be part of the agreement.~~
- (v) The contractor intending to hire/lease equipments/machineries are required to furnish proof of ownership from the company /person providing equipments/machineries on hire/lease along with contracts/ agreements/lease deed and duration of such contract. The contracts/agreements/lease deed should be on long term basis for a minimum period of **as mentioned in contract data** from the last date of receipt of Bid documents.
8. The companies or individuals registered with State Government and contractors of equivalent Grade/class registered with Central Government / MES / Railways having registration for Civil works having both legal competency and expertise in Civil works need put tenders for this work and the documentary evidence under appropriate Act in support of their legal competency and expertise to execute Civil work invariably should accompany their tender papers. The tender papers shall bear signature of authorized person of the bidder, the letter of authorization should accompany tender papers. The authorization should clearly indicate the name of legal person to sign and enter in to agreement and receiving payment and will be responsible for all contractual obligations for execution of Civil work to the Engineer-in- Charge.
9. (i) The contract will be drawn in P.W.D. P-1 contract form and will constitute as follows.
- For Civil items of works**
The contract shall be drawn & signed by the **Executive Engineer, Fishery Engineering Division, Bhubaneswar** on behalf of the Governor of Odisha.
- (ii) The Civil items of works as per Schedule of quantities of the Agreement shall be supervised and check measured by the **PMC** as well as **Executive Engineer, Fishery Engineering Division, Bhubaneswar**
10. If an individual makes the application, the individual should sign (with DSC) above his full type written name and current address.
11. If the application is made by proprietary firm, it shall be signed (with DSC) by the proprietor & furnish full type written name and the full name of his firm with its current address in a forwarding letter.
12. If the application is made by a firm in partnership, it shall be signed (with DSC) by a partner holding power of attorney for the firm in which case a certified copy of the power of attorney shall accompany the application. A certified copy of the partnership deed and current address of all partners of the firm shall also accompany the application.
13. If the application is made by a limited company or a corporation, it shall be signed (with DSC) by a duly authorized person holding power of attorney for signing the application in which case a certified copy of the power of attorney shall accompany the application. Such limited company or corporation will be required to furnish satisfactory evidence of its existence along with the

technical bid.

14. The tender should be strictly in accordance with the provisions as mentioned in the tender schedule. Any change in the wordings will not be accepted.
15. The work is to be completed in all respects within **(24) twenty four Calendar Months** from the date of issue of work order. Bidder whose tender is accepted must submit a programme of work immediately after issue of work order for approval of Engineer-in-Charge.
16. All tenders received will remain valid for a period of **90 days** from the last date prescribed for receipt of tenders and validity of tenders can also be extended if agreed by the bidders and the Department.
17. The bidder shall carefully study the tentative drawings and specifications applicable to the contract and all the documents, which will form a part of the agreement to be entered in to, by the accepted bidder and detailed specifications for Odisha, and other relevant specifications and drawings, which are available. Complaint at a future date that the bidders have not seen plans and specifications cannot be entertained.
18. The drawings furnished with the tender are tentative and subject to revision or modification as tendered during the execution as per actual necessity and detail test conducted. But the tendered rates quoted by the bidder will hold good in case of such modification of drawings during the time of execution and shall in no way invalidate the contract and no extra monetary compensation will be entertained. The work shall however be executed as per final approved drawing to be issued by the Engineer-in-Charge as and when required.
19. By admission of a tender for the work, a bidder will be deemed to have satisfied himself by actual inspection of the site and locality of the work, about the quality and availability of the required quantity of material including the wheat/ rice referred to above, medical aid, labour and food stuff etc., and that rates quoted by him in the tender will be adequate to complete the work according to the specifications attached there to and that he had taken in to account all conditions and difficulties that may be encountered during its progress and to have quoted rates including labour and materials with taxes, octroi, other duties, lead, lifts, loading and unloading, freight for all materials and all other charges necessary for the completion of the work, to the entire satisfaction of the Engineer-in Charge of the work and his authorized subordinates. After acceptance of the contract rate Government will not pay any extra charges for any reason in case the contractor claims later on to have misjudged as regard availability of materials, labour and other factors.
20. (i) The Engineer-in-charge will notify the bidder / tenderer whose bid has been accepted of the award prior to expiration of the validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the conditions of Contract called the "Letter of Acceptance") will state the sum that the Engineer-in-charge will pay the contractor in consideration of the execution, completion and maintenance of the Works by the contractor as prescribed by the contract (Hereinafter and in the contract called the "Contract Price").

(ii) **Initial Security Deposit 2%** over value of the tender will be deposited by the successfully bidder in form of **N.S.C / Post Office Savings Bank Account/ Post Office Time Deposit Account/ Kishan Vikas Patra/ Bank Guarantee in favour of the Divisional Officer from any Nationalized Bank in India counter guaranteed by its local branch at Bhubaneswar/ e-Bank Guarantee executed on the National e-Governance Services Limited (NeSL) Digital Document Execution portal/ Insurance Surety Bond issued by an Insurance Company authorized by the Insurance Regulatory and Development Authority of India (IRDAI). Initial Security Deposit/ any other security deposit from the contractor or supplier duly pledged in favour of the Executive Engineer, Fishery Engineering Division, Bhubaneswar & Payable at Bhubaneswar** and in no other form, during signing the agreement in the P.W.D. form No. **P-1 (Schedule XLV No. 61)** for the fulfillment of the contract in the office of the **Executive Engineer, Fishery Engineering Division, Bhubaneswar** or as directed. In addition to 2% ISD, the Executive Engineer, Fishery Engineering Division, Bhubaneswar will deduct from the running bill an amount **at the rate of 3%** of the total gross value of each bill, as an additional security deposit. The initial security deposit amount withheld according to the provision of **P-1**

agreement shall be retained as security for the due fulfillment of this contract and additional performance security in accordance with the provisions of the agreement.

The agreement will incorporate all agreements between the officer inviting the bid/ Engineer-in Charge and the successful bidder within **7 days** following the notification of award along with the Letter of Acceptance. The successful bidder will sign the agreement and deliver it to the Engineer-in Charge. Following documents shall form part of the agreement.

- a) The notice-inviting bid, all the documents including additional conditions, specifications and drawings, if any, forming the bid as issued at the time of invitation of bid and acceptance thereof together with any correspondence leading thereto & required amount of performance security including additional performance security.
 - b) Standard **P.W.D. Form P-1 with latest amendments**. No contract (tender) shall be finally accepted until the required amount of initial security money is deposited. The **security will be refunded after 24 (Twenty four) months** of completion of the work and payment of the final bill and will not carry any interest.
21. The tender should be accompanied with the Scanned copies of the valid Registration certificate, valid GST and PAN card which are mandatory and the **original certificates** are to be produced **within Five (5) working days** after the date of opening of the Technical Bid in the office of undersigned for verification, otherwise his/her bid shall be declared as non-responsive and thus liable for rejection.
22. The tender containing extraneous conditions not covered by the tender notice are liable for rejection and quotations should be strictly in accordance with the items mentioned in the Tender Call Notices. Any change in the wording will not be accepted.
23. The department reserves the right of authority to reject any or all tenders received without assigning any reason whatsoever.
24. The earnest money will be retained in the case of successful bidders and will be dealt with as per terms and condition of O.P.W.D. Code. The earnest money will be refunded to the unsuccessful bidder on application after intimation is sent to rejection of their tenders. The retention of E.M.D. with the Department will carry no interest.
27. The contractor should be abiding to fully indemnify the Department for payment of compensation under workmen compensation act. VIII of 1923 on account of the workmen employed by the contractor and full amount of compensation paid will be recovered from the contractor.
28. Bidders are required to liable by fair wages clause as introduced by Govt. of Odisha, Works Department Letter No.12606/W dated 24.12.2012.
29. The contractor shall bear cost of various incidentals, sundries and contingencies necessitated by work in full within the following or similar category.
- a) Rent royalties, cess and other charges of materials, Octroi and all other taxes including prevailing sale tax / GST from time to time. Ferry tolls, conveyance charges and other cost on account of land buildings including temporary building required by the bidder for collection of materials, storage, housing of staff or other purpose of the work are to be borne by the contractor at his own cost. No rent will be payable to Govt. for temporary occupation of land owned by govt. at the site of the work for bonafide use of the land for work and all such construction of temporary nature by the contractor shall be done after obtaining written permission from the Engineer-in-Charge of Civil portion of the work and all such construction shall have to be demolished and debris removed and ground made good and cleared after completion of the work at no extra cost.
 - b) Royalty will be recovered from each bill as notified by Govt. from time to time unless K Forms are enclosed. Refund of royalty at later date after passing of the bills cannot be entertained as the recovery of royalty is being credited to revenue.

- c) Labour camps or huts necessary to a suitable scale including conservancy and sanitary arrangements therein to the satisfaction of the local labour laws and health authorities shall have to be provided by the Contractor.
 - d) Arrangement of suitable water supply including pipe water supply where available for the staff and labour as well as for the execution of the work is sole responsibility of the Contractor and no extra cost for carriage of water will be entertained.
 - e) All fees and dues levied by Municipal, Canal or Water Supply Authorities are to be borne by the Contractor.
 - f) Suitable safety equipments and dresses, gloves, life belts etc. for the labour engaged in risky operations are to be supplied by the contractor at his own cost.
 - g) Suitable fencing barriers, signals including paraffin and electric signals where necessary at work and approaches in order to protect the public and employees from accident has to be provided by the Contractor at his own cost.
 - h) Compensation including cost of any legal suit for injury to persons or property arising out of execution of the work and also any sum, which may become payable due to operation of the workmen compensation act, shall have to be borne by the contractor.
 - i) The contractor has to arrange adequate lighting arrangements for the work wherever necessary at his own cost.
30. No payment will be made for layout, Benchmark, level pillars, profiles and benching and levelling the ground required, which has to be carried out by the contractor at his own cost. The rates to be quoted should be for finished items of work inclusive of carriage of all materials and all incidental items of work.
31. After the work is finished all surplus materials should be removed from the site of work, preliminary work such as GST, mixing platforms, etc. should be dismantled and all materials removed from the site and premises left neat and this should be inclusive in the rates. No extra payment will be made to the Contractor in this account.
32. It should be understood clearly that no claim what-so-ever will be entertained to extra items of works quantity of any item besides estimate amount unless written order is obtained from the competent authority and rate settled before the extra items of work or extra quantity of any items of work is taken up.
33. The bidders shall have to abide by the C.P.W.D. safety code rules introduced by the Govt. of India, Ministry of Works and Housing & Supply in their standing order No.44150, dt.25.11.57.
34. No part of the contract shall be sublet without written permission of the competent authority, or transfer to be made by the power of attorney authorizing others to receive payment on contractor's behalf.
35. Bid documents consisting of plans, specifications, the schedule of quantities and the set of terms and conditions of contract and other necessary documents can be seen in all the offices issuing the documents and office of the under signed during office hours every day except on Sundays and Public Holidays till last date of sale and receipt of tender papers. Interested bidders may obtain further information at the same address. But it must be clearly understood that tenders must be received in order and according to instructions in complete shape. Incomplete tender is liable for rejection.
36. **No Relation certificate.**
- The contractor shall furnish a certificate along with the tender to the effect that he is not related to any officer in the rank of an Assistant Engineer & above or Under/Deputy Secretary & above in

the concerned Department. If the fact subsequently proved to be false, the contract is liable to be rescinded. The earnest money & the total security will be forfeited & he shall be liable of make good to damages the loss or damages resulting for such cancellations. The proforma for no relationship certificate is contained in a separate sheet vide **Schedule-A**.

37. 37 Price Adjustment (vide Works Deptt O.M NO 15847/W 19.11.19)

37.1. Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants in accordance with the following principles and procedures and as per formula given in following Paras.

- (a) The price adjustment shall apply for the work done from the start date given in the contract data up to end of the initial intended completion date or extensions granted by the Engineer and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the contractor.
- (b) The price adjustment shall be determined during each month from the formula given in following Paras
- (c) Following expressions and meanings are assigned to the work done during each month:

R= Total value of work done during the month. It would include the amount of secured advance granted, if any, during the month, less the amount of secured advance recovered, if any during the month. It will exclude value for works executed for extra items under variations.

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

37 (a) (i): Adjustment of Other Materials Component

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

$$V_M = 0.85 \times P_m / 100 \times R \times (M - I - M_0) / M_0$$

V_M = Increase or decrease in the cost of work during the month under consideration due to changes in rates for local materials other than cement, steel, bitumen and POL.

M_0 = The all India wholesale price index(all commodities) on 28 days preceding the date of opening of Bids, as published by the Ministry of Commerce and Industry .Government of India, New Delhi.

M_i = The all India wholesale price index (all commodities) for the month under consideration as published by the Ministry of Commerce and Industry , Government of India, New Delhi.

P_m = Percentage of local material component (other than cement, steel, bitumen and POL) of the work

37(a) (ii) Adjustment for cement component.

Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid in accordance with the following formula: $V_c = 0.85 \times P_c / 100 \times R \times (C_i - C_0) / C_0$
 V_c = Increase or decrease in the cost of work during the month under consideration due to changes in the rates fo_ cement

C_0 = The all India wholesale price index for Ordinary Portland Cement (OPC) on 28 days preceding the date of opening of Bids as published by the Ministry of Commerce and Industry , Government of India, New Delhi.

C_1 = The all India wholesale price index for Ordinary Portland Cement (OPC) for the month under consideration as published by the Ministry of Commerce and Industry,

Government of India, New Delhi.

P_c = Percentage of Cement Component of the work

37(a) (iii) Adjustment for steel component

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

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

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

S₀ = The all India wholesale price index for steel (Mild Steel long products) on 28 days preceding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi

S_r = The all India wholesale price index for steel (Mild Steel long products) for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_s = Percentage of steel component of the work

Note: For the application of this clause, index of (Mild Steel long products) has been chosen to represent steel group.

37(a) (iv) Adjustment of Bitumen Component

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

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

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

B₀ = The official retail price of bulk bitumen at the IOC / BPCL depot at nearest center on the day 28 days prior to date of opening of Bids.

B_i = The official retail price of bulk bitumen at IOC / BPCL depot at nearest center for the 15th day of the month under consideration.

P_b = Percentage of bitumen component of the work

37(a) (v): Adjustment towards differential cost of pipes

Price adjustment for increase or decrease in cost of Pipe shall be paid in accordance with the following formula.

$$V_{pi} = 0.85 \times P_{pi} / 100 \times R \times (P_m - P_{i0}) / P_{i0}$$

V_{pi} = Differential cost of pipe i.e. amount of increase or decrease in rupees to be paid or recovered during the month under consideration. P_{pi} = Percentage of pipe component of the work

P_n = All India Whole sale price index of pipe for the period under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi

P_{i0} = All India Whole sale price index of pipe on 28 days preceding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi

37 (b): Adjustment of Labour component:

Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula:

$$V_L = 0.85 \times P_L / 100 \times R \times (L_i - L_0) / L_0$$

V_L = Increase or decrease in the cost of work during the month under consideration due to changes in rates for local labour.

L₀ = The minimum wages for unskilled labour as Notified by Government of Odisha as prevailed on the last stipulated date of receipt of tender including extension, if any. L_i = The minimum wages for unskilled labour as Notified by Government of Odisha as

prevailed on the last date of the Month previous to the one under consideration,
Pi = Percentage of labour component of the work.

37 (c): Adjustment of POL (fuel and lubricant) Component

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

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

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

Fo= The official retail price of High Speed Diesel (HSD) at the existing consumer pumps of IOC / BPCL/ HPCL at nearest center on the day 28 days prior to the date of opening of Bids.

F1= The official retail price of HSD at the existing consumer pumps of IOC / BPCL/ HPCL at nearest center for the 15th day of the month under consideration.

Pf = Percentage of fuel and lubricants component of the work

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

37 (d): Adjustment for Plant and Machinery Spares Component

Price adjustment for increase or decrease in the cost of plant and machinery spares procured by the Contractor shall be paid in accordance with the following formula:

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

Vp- Increase or decrease in the cost of work during the month under consideration due to changes in the rates for plant and machinery spares

Po. The all India wholesale price index for manufacture of machinery for mining, quarrying and construction on 28 days preceding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi

Pi. The all India wholesale price index for manufacture of machinery for mining, quarrying and construction for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

Pp- Percentage of plant and machinery spares component of the work

Note: For the application of this clause, index of manufacturing of machinery for mining, quarrying and construction has been chosen to represent the Plant and machinery Spares group.

Regarding wholesale price Index (WPI) for appropriate commodity for payment of price adjustment, due to change of base year of WPI from 1993-94 to 2004-05 & 2011-12, it is observed that, the commodity 'Bars and Rod', 'Cement', 'Heavy machinery and parts' included in the list of WPI 1993-94 series are not mentioned as such in the WPI 2004-05 & 2011-12 series. Therefore, the following items in the WPI 2004-05 & 2011-12 series shall be considered corresponding to items in WPI 1993-94 series:

Sl. No.	Item in WPI 1993-94 series	Item in WPI 2004-05 series	Item in WPI 2011-12 series
1.	Cement	Grey Cement	Ordinary Port land cement
2.	Bars & rods	Rebars	Mild steel long products

3.	Heavy Machinery & parts	Construction Machinery	Manufacture of machinery for mining, quarrying & construction
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37 (e): APPLICATION OF ESCALATION CLAUSE:

The contractor shall for the purpose of availing reimbursement/refund of differential cost of steel, bitumen, cement, pipe, POL and wages, keep such books of account and other documents as are necessary to show that the amount of increase claimed or reduction available and shall allow inspection of the same by a duly authorized representative of Government and further, shall at the request of the Engineer-in-Charge, furnish documents to be verified in such a manner as the Engineer-in-Charge may require any document and information kept. The contractor shall within a reasonable time of 15 days of his becoming aware of any alteration in the price of such material, wages of labour and /or price of P.O.L. give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition along with information relating to there to which he may be in a position to supply.

Sl. No.	Category of Works		% Component (Cost-wise)		
			Labour (P1)	POL (P1)	Steel (Ps) + Cement (Pc) + Bitumen (Pb)+ Pipes (Ppi)+ Plant & Machinery Spare & Component (Pp) + Other Materials*
1	R & B Works (%) of Component	Road Works	5	5	90
		Bridge Works	5	5	90
		Building Works	5	5	90
2	Irrigation Works (%) of Component	Structure Work	5	5	90
		Earth, Canal & Embankment Work	5	5	90
3	P.H. Works	Structural Work	5	5	90
		Pipeline Work	5	5	Pipe-70% *Machinery+ Other material-20%
		Sewer Line	5	5	Pipe-70% *Machinery+ Other material-20%

Appendix to Bid Schedule of Adjustment Data

[For all works, adjustment factor for Labour and POL shall be considered @ 5% each, Steel, Cement, Pipes, Other materials and Machinery shall contribute to 90% of Price Adjustment and shall be calculated for each work separately during preparation of estimate, shall be approved by the authority during technical sanction as a " Schedule of Adjustment Data" and shall form part of the Bid Document]

Cl. No- 31 of F2/P1 contracts Sl No.	Index description	Source of Index	Base value*	Base Date*	Weightage of Item**
37 (a) (i)	Other materials	All India Whole sale price index (all commodities) as published by the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry			66.02 %
37 (a) (ii)	Cement	Whole sale price index for Cement (Ordinary Portland Cement) as published by the office the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			4.84 %

37 (a) (iii)	Steel	Wholes sale price index for Steel (Mild Steel-Long Products) as published by the Office of the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			17.29 %
37 (a) (v)	Pipes	Whole sale price index for the type of pipe under consideration, as published by the office the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry			1.85%
37 (b)	Labour	Minimum wages notified by the Labour and Employee's State Insurance Department of Government of Odisha, India.			5.00%
37 (c)	POL	Official retail price of HSD at nearest IOCL/HPCL/BPCL Consumer pump depot			5.00%
37 (d)	Plant & Machinery	Whole sale price index for Manufacture and machinery for Mining, Quarrying and Construction as published by the office the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry			10.20%
			Total		100%

*Values to be filled up at the time of drawal of contract.

** Values to be filled up in the bid document.

38. If any advance / Secured advance is granted by the Department the same will bear interest at the rate of 18% P.A.
39. All items of work as per schedule of quantities of this tender should confirm to Odisha Detailed Standard Specification. I.R.C. & I.S.I. Codes & Bridge code section I,II,III,IV&VII & latest design criteria for pre-stressed concrete bridge specially for Roads & Bridges issued by MORT&H., Government of India, Compacting shall have to be carried out with help of mechanical vibrators from the range of I.S.:2505, I.S.:2006, I.S.:2514. I.S.:4656.
40. Centring & Shuttering shall be with suitable steel shutters in side of which shall be lined with suitable sheeting and made leak proof and watertight. All joints in formwork shall be properly sealed preferably with P.V.C. joints sealing tapes & compounds.
41. Form work including complete false work shall be designed by the Contractor without any extra cost to employer and the Department will have the right to inspect the scaffolding, centring and shuttering made for the work and can reject partly of fully such structures, if found defective in their opinion. Any eventually such as loss of lives or property due to failure of centring and shuttering shall be the responsibility of the Contractor regarding compensation of all claims thereof.
42. Cement shall be used by bags and weight of one bag of Cement should be 50 (fifty) Kg. net & the Engineer-in-Charge or his representative shall have the right to test the weight & quality from time to time.
43. The bidders shall make all arrangements for proper storage of materials but no cost for raising shed for store and pay of security guard etc. will be borne by the Department. The department is not responsible for any theft or loss of materials at site. It is contractor's risk. Under any such plea, if the bidder stops the work he shall have to pay the full penalty as per clauses of the contract.
44. Approach road to site of work for transport of materials to site of work is sole responsibility of the

Contractor. Statutory traffic restriction in the town area for Transport of construction material to site of work is to be taken in to consideration before tendering and no consideration for extra time or compensation thereof shall be considered.

45. The contractor shall properly co-ordinate with the execution of P.H. and Electrical works and take care of the safety of workers.
46. The contractor should at his own cost arrange necessary tools and plants required for efficient execution of work and the rates quoted should be inclusive of transportation, hire and running charges of such plant and cost of consumables excluding boring of piles
47. The machineries if available, with the department may be supplied on hire as per charges noted in the enclosed statement and may be changed from time to time subject to the condition that the contractor will execute in advance an agreement with the Engineer-in-Charge.
48. No claim whatsoever will be entertained for supply of machineries. No extension of time will be granted to the contractor under this ground under any circumstances
49. The bidder should furnish along with their tender a list of works executed during the last five years duly certified by the concerned Engineer-in-charge indicating the satisfactory completion for Civil works as per the proforma enclosed in a separate sheet of **Schedule-D** and list of ongoing works as per proforma enclosed in a separate list as **Schedule-B**.
50. The bidder or any of its constituent partners of whose contract for any work has been rescinded or who has abandoned any work in the last five years prior to the date of Bid shall be debarred from qualification. The bidder is to furnish an affidavit at the time of submission of tender paper about the authentication of tender documents. An affidavit to this effect is to be furnished in **Schedule-F** and information in **Schedule-E**.
51. **It should be clearly understood that:**
 - a) The joints of the bars are to be provided with lapping, welds or bolts nuts as well be directed by the Engineer-in-charge.
 - b) Concrete test specimens 150mm × 150mm × 150mm in size (whether plain or reinforced concrete) for the testing shall be taken for each structural member by a representative of the contractor in the presence of responsible officer of the rank not lower than that of an Assistant Engineer or sub-Divisional Officer. The contractor shall bear the cost so involved in testing. The test specimen in cube should be carried out in **any authorised quality control laboratory** (approved by Govt.). Test should be carried out in accordance with the stipulation in Bridges code section-III.
 - c) Test specimens shall be formed carefully in accordance with the standard method of taking test specimen and no plea shall be entertained later on the grounds that the casting of the test specimen was faulty and that the result of the specimen did not give a correct indication of the actual quality of concrete.
 - d) Plain concrete and reinforced concrete specimens will be tested in **any Govt approved Quality Control Laboratory**. Cost of testing of all specimens and samples will be borne by the Contractor.
52. The rates quoted should be inclusive of carriage of water required in connection with execution of the work. No claim for carriage of water whatsoever will be entertained.
53. The contractor shall employ one or more Engineering Graduate or Diploma holders as apprentice at his cost if the work as shown in the tender exceeds Rs.2,50,000.00. The apprentices will be selected by the **Director, Ports & IWT**. The period of employment will commence within one month after the date of work order and would last till the date, when 90% of the work is completed. The fair wage to be paid to the apprentices should not be less than the emolument of personnel of

equivalent qualification employed under Government. The number of apprentices to be employed should be fixed by the Director in the manner so that the total expenditure does not exceed one percent of the tendered cost of the work.

54. List of tool & plants in running condition in possession of contractor is to be furnished in a separate sheet of **Schedule-C**.
55. It is the responsibility of the contractor to procure and store explosive required for blasting operation. Department may render necessary possible help for procuring license.
56. For submission of a tender for the work, the bidder will be deemed to have satisfied himself by actual inspection of the site and locality of the work about the quality and availability of the required quantity of materials, Medical aid, labour and Flood stuff etc. and that the rates quoted by him in the tender will be adequate to complete the work according to the specifications attached thereto and that he had taken in to account all conditions and difficulties that may be encountered during its progress and to have quoted labour rates and materials with taxes, Octoroi and other duties lead, lifts, loading and unloading freight for materials and all other charges necessary for the completion of the work to the entire satisfaction of the Engineer-in-charge of the work and his authorized subordinates. After acceptance of the contract rates Government will not pay any extra charges for any reason in case the contractor finds later on to have misjudged the conditions as regards the availability of materials, labour and other factors. The contractor will be responsible for any misuse, loss or damages due to any reasons whatsoever of any departmental material during the execution of work. In case of loss, damage or misuse, recovery at the rate at 5 times the cost of the materials will be deducted from the bills or his other dues.
57. The prevailing percentage of I.T. Department of the gross amount of the bill towards income tax will be deducted from the contractor's bill.
58.
 - a) Prevailing rate of **GST** on the gross amount of the bill will be deducted from the Contractor's bill, where Agreement Value is One Lakh and above.
 - b) **CESS @1%** of the amount of estimated cost as per Tender Notification read with latest corrigendum if any will be proportionately deducted from the contractor bill at the time of making payment of each bill.
59. It must be clearly understood that under no circumstances any interest is chargeable for the dues or additional dues if any payable for the work executed and final bill pending disposal due to any reason whatsoever.
60. No extra payment will be made for removing spreading and consolidating salvaged metals and materials.
61. Under section 12 of contractors labour (Regulation and Abolition) Act. 1970 the contractor who undertakes execution of work through labour should produce valid license from licensing authorities of labour Department.
62. **Performance Security / Additional Performance Security:**
 - 62.1 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.
 - 62.2 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.
 - 62.3 - 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;

62.4 - 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

62.5 - 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.

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

62.7 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.

62.8 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.

62.9 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.

- 63. Sample of all material** - The contractor shall supply sample of all materials fully before procurement for the work for testing and acceptance as may be requiring by the concerned Director.
- 64.** Super class contractor shall employ under himself two Graduate Engineer and two Diploma holders belonging to the State of Odisha. Special class contractor shall employ under him one graduate Engineer and two Diploma Holders belonging to the state of Odisha. Likewise 'A' class contractor shall employ under him one Graduate Engineer or two Diploma Holders belonging to state of Odisha. The contractor shall pay to the Engineering personnel monthly emoluments, which shall not be less than the emoluments of the personnel of equivalent qualification employed under the State Govt. of Odisha. The Engineer-in Chief (Civil), Odisha may however assist the contractor with names of such unemployed Graduate engineers and Diploma Holders if such help is sought for by the contractor. The names of such Engineering personnel appointed by the Contractors should be intimated to the tender receiving authority along with the tender as to who would be

supervising the work. Each bill of the Super Class, Special Class or 'A' Class Contractor shall be accompanied by an employment Roll of the Engineering personnel together with a Certificate of the Graduate Engineer or Diploma Holder so employed by the contractor to the effect that the work executed as per the bill has been supervised by him. (Vide Works Department No. Codes M-22/91-15384 dated 9.7.91). The required certificate is to be furnished in the tender documents vide **Schedule-G**.

65. An engineering personnel of the executing agency should be present at work site at the time of visit of High level Inspecting officers in the rank of Chief Engineer and above.
66. All reinforced cement work should conform to Odisha Detailed specification and should be of proportion as per Contract Agreement having desired compressive strength (in work test) in 15 Cm cubes at 28days, after mixing and test conducted in accordance with IS 456 and IS 516.
67. Bailing out of water from the foundation, pipeline trenches S. Tanks/ Soak pits/ Sumps/ M.H. etc. either rainwater or sub-soil water if necessary should be borne by the contractor. No payment will be made for benchmarks. Level pillars, profiles and benching and levelling the ground wherever required. The rates quoted should be for finished items of works inclusive of these incidental items of work. It should be understood clearly that no claims whatsoever would be entertained.
68. The bidder shall have to abide by the C.P.W.D. safety code rules introduced by the Government of India, Ministry of work Housing and Supply in their standing order No-44150 dtd.25.11.57.
69. The Contractor will have to submit to the **Executive Engineer, Fishery Engineering Division, Bhubaneswar**, monthly return of labour both skilled and unskilled employed by him on the work.
70. All fittings for doors and windows P.H. & Electrical works as supplied by the Contractor should be of best quality and conform to relevant I.S. specification and should be got approved by the Engineer-in-charge of the respective wing before they are used on the work.
71. The Bidder should furnish along with their tender 1. A list of works, which are at present in their hand (**Schedule-C**) 2. List of T&P (**Schedule-C as per Annexure-I**) and 3. List of work executed (**Schedule-D**) in the prescribed proforma (s) enclosed herewith in appropriate place of bid document.
72. All reinforced cement concrete works should be finished smooth Extra charges for plastering if required to any R.C.C. structures like roof slab, Columns, Chhaja', fins, parapets, shelves etc. shall not be paid.
73. The contractor has to arrange the samples of materials required for execution to be got tested and approved by the Department before taking up the work and during course of execution required from time to time. All such samples will be tested at any of the Departmental Control and Research Laboratories, at the cost of the Contractor with no extra cost to the Department.
74. If there is any damage or any imperfection becomes apparent to the work due to natural calamities like flood or cyclone or any other cause during the course of execution or up to **6 months** from the date of final certificate of completion of work the contractor shall make good of all such damages at his own cost with no extra cost to the Department. No claims, whatsoever, in this regard will be entertained.
75. The K. B. Bricks should be well burnt and of good qualities. The bricks should be approved by the Engineer-in-Charge before use in the work and should confirm to the minimum strength and other criteria as per National Building Code.
76. Under Section 1 of contract labour Regulation and Abolition Act 1970 the contractor who undertakes execution of work through labour should produce valid license from the licensing authority of labour Department.
77. Standard co-efficient for linear measurement will be adopted while calculating consumption of

steel and no claim whatsoever regarding difference in co-efficient of steel will be entertained. The rates quoted shall be inclusive of any eventuality of difference for co-efficient for linear measurements.

78. Engineer Contractor desirous to avail the facility of exemption of ISD is required to submit an affidavit to the effect that he has not yet availed the facility / participated in the tender for more than two works (Excluding this work) during the current financial year. The name of work for which participated and the authority to whom the tender was submitted must be mentioned in the affidavit, failing which the tender will be rejected.
79. That for the purpose of jurisdiction in the event of disputes if any of the contract would be finalized by the Project Management Consultancy. It is bind to obey both the party i.e, Contractor as well as Government as per the final decision of the PMC.
80. **SPECIAL CONDITIONS (PART OF THE CONTRACT)**
- (I) All materials before they are being used in the items of works as per this Schedule of quantities and also the finished items of work where tests are applicable shall have to be tested through the Engineer-in-charge of the respective wing at appropriate Laboratories according to the relevant I.S. specifications of the materials and the said items of works and the cost of all such tests shall have to be borne by the Contractor and the rates of the items of works should be inclusive of cost of such tests.
- (II) The tests have to be planned & carried out such that the progress of work is not hampered
- (III) The tests are mandatory as per the prescribed frequencies and I.S. specifications. However, these are not exhaustive and the Engineer-in-charge has the right to prescribe other required test if any as will be considered from time to time.
81. In case of ambiguity between clauses of this D.T.C.N. and the **P-1** contract form, the relevant Clauses of the P-1 contract form shall prevail over the D.T.C.N. The clauses not covered under **P-1** contract form shall be governed by the clauses of the D.T.C.N.
82. Schedule of quantities is accompanied in Bid documents. It shall be definitely understood that the Government does not accept any responsibility for the correctness or completeness of this schedule and that this schedule is liable for alternation or omissions, deductions or alternations set forth in the conditions of the contract and such omissions, deductions, additions or alternations shall no way invalidate the contract and no extra monetary compensation, will be entertained.
83. In case of any complaint by the labour working about the non payment or less payment of his wages as per latest minimum Wages Act, the **Executive Engineer, Fishery Engineering Division, Bhubaneswar** will have the right to investigate and if the contractor is found to be in default, he may recover such amount due from the contractor and pay such amount to the labour directly under intimation to the local labour office of the Govt. The contractor shall not employ child labour. The decision of the **Executive Engineer, Fishery Engineering Division, Bhubaneswar** is final and binding on the contractor.
84. The contractor should arrange the materials like Steel, Cement, paint and bitumen etc. of approved quality and specification at his own cost for completion of the work with the time schedule. No extension of time will be granted on the application of the contractor due to delay in procurement of materials.
85. The bidder will be responsible for the loss or damage of any departmental materials during transit and in the execution of the work due to reasons what-so-ever and the cost of such materials will be recovered from the bills at stock issue rates or market rates whichever is higher.
86. If the contractor removes Government materials supplied to him from the site of work with a view to dispose of the same dishonestly, he shall be in addition to any other liability civil or criminal arising out of his contract be liable to pay a penalty equivalent to five times of the price of the

materials according to the stock issue rate or market rate whichever is higher. The penalty so imposed shall be recovered at any time from any sum that may then or at any time thereafter become due to the contractor or from his security deposit or from the proceeds of sale thereof.

87. The selected contractor may take delivery of departmental supply according to his need for the work issued by the **Sub-Divisional officer** in-charge subject to the availability of the materials. The bidder shall make all arrangement for proper storages of materials but no cost for raising shed for storage, pay of security guard etc. will be borne by the Department. The Department is not responsible for considering the theft of materials at site. It is the contractor's risk. Under any such plea if the bidder stops the work, he shall have to pay the full penalty as per clause of **P1** agreement.
88. The contractor must have to arrange by themselves cement, steel, bitumen and every sort of materials from approved manufacturer, get it tested in the Departmental Laboratory and approved by the Department before use. No extension of time or escalation of price on such account shall be entertained in future.
89. **Odisha Bridge & Construction Corporation Ltd.** will be allowed **price preference** up to 3% over the lowest quotation or tender as laid down in Works and Transport Department Resolution No-285 date-17.04.1974. The Odisha Construction Corporation will be allowed a price preference to the extent of up to 3% over the lowest tender amount (Where their tender is not the lowest) provided they express willingness to execute the work after reduction of rates by negotiation.
90. The contractor is required to **pay royalty** to Govt. as fixed from time of time and produce such documents in support of their payment to the concerned **Executive Engineer, Fishery Engineering Division, Bhubaneswar** with their bills, falling which the amount towards royalties of different materials as utilised by them in the work will be recovered from their bills and deposited in the revenue of concerned department.
91. **Any defects**, shrinkage or other faults which may be **noticed within 12(Twelve) months** from the completion of the work arising out of defective or improper materials or workmanship timing are upon the direction of the Engineer-in-Charge to be amended and made good by the contractor at his own cost unless the Engineer for reasons to be recorded in writing shall be decided that they ought to be paid for and in case of default Department may recover from the contractor the cost of making good the works.
92. From the commencement of the works to the completion of the same, they are to be under the contractors charge. The contractor is to be held responsible to make good all injuries, damages and repairs occasioned or rendered necessary to the same by fire or other causes and they hold the Govt. of Odisha harmless for any claims for injuries to person or structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the contractor or any one in his employment during the execution of the work. Also no claim shall be entertained for loss due to earthquake, flood, cyclone, epidemic, riot or any other calamity whether natural or incidental damages so caused will have to be made good by the contractor at his own cost.
93. Gradation of ingredients: The coarse and fine aggregate shall meet the grade requirement as per the latest provision of relevant. I.S. Code / I.R.C. code / MORT&H specifications.
94. Where it will be found necessary by the Department, the Engineer-in charge of the work shall issue an **order book** to the contractor to be kept at the site of the work with pages serially numbered. Orders regarding the work whenever necessary are to be entered in this book by the Engineer-in-Charge with their dated signatures and duly noted by the contractor or his authorized agents with their dated signature. Orders entered in this book and noted by the contractor's agent shall be considered to have been duly given to the contractor for following the instructions of the Department. The order Book shall be the property of the Department and shall not be removed from the site of work without written permission of the Engineer-in-charge and to be submitted to the Engineer-in charge every month.
95. The contractor should attach the certificate in token of payment deposit with the registration authority as per recent circular of the Government relating to his registration.

96. In case of any discrepancy in printing or omissions of statutory specifications or any other part or portion of the approved document during download of the bid document, the decision of the officer inviting the bid will be binding on the bidder.
97. The rates quoted by the contractor shall cover the latest approved rates of Labours, Materials, P.O.L. and Royalties. Arrangement of borrow areas i.e. Land, Approach Road to the building site etc. are the responsibility of the contractor.
98. The rate for each work of concrete items wherever dewatering is imperatively necessary the term dewatering shall mean the execution or operation of the items due to standing water as well as due to percolation of water. The quoted rates will be inclusive of this.
99. The contractor shall make requisition of **claim book** from the date of commencement of the work from the Department and shall maintain in proper P.W.D. form with pages serially numbered in order to record items of works are not covered by his contract and claimable as extra. Claims shall be entered regularly in this book under the dated signature of the contractor or his duly authorized agents at the end of each month. A certificate should be furnished along with the claim to the effect that he has no other claim beyond this claim up-to-date. If in any month there are no claims to record, a certificate to that effect should be furnished by the contractor in the claim book. Each claim must be defined and should be given as far as possible regarding the quantities as well as the total amount claimed. The claim book must be submitted by the contractor regularly by 10th and 16th days of each month for orders of the Engineer-in-Charge or competent authority. Claims not made in this manner or the claim book not maintained from the commencement of the work is liable to be summararily rejected. The claim book is the property of the Department and shall be surrendered by the contractor to the Engineer-in-charge after completion of the work or before recession of the contract by the Department whichever is earlier for record.
100. Number of tests as specified in I.R.C. / MORT&H / I.S.I specification required for the construction of roads / bridges / buildings or any other structural works will be conducted in any Govt. Test House/Departmental laboratories/reputed material testing laboratory as to be decided by the Engineer-in-charge. Testing charges including expenditure for collection / transportation of samples /specimens etc. will be borne by the contractor. The collection of samples and testing are to be conducted for both prior to execution and during execution as may be directed by the Engineer-in-charge and on both the accounts the cost shall be borne by the contractor.
101. Even qualified criteria are met; the bidders can be disqualified for the following reasons, if enquired by the Department
- (a) Making a false statement or declaration.
 - (b) Past record of poor performance.
 - (c) Past record of abandoning the work half way/ recession of contract.
 - (d) Past record of in-ordinate delay in completion of the work.
 - (e) Past history of litigation.
102. In case the 1st lowest bidder or even the next lowest bidders withdraw in series one by one, thereby facilitating a particular tender for award, then they shall be penalized with adequate disincentives with forfeiture of EMD unless adequate justification for such back out is furnished. Appropriate action for black listing the bidders shall also be taken apart from dis-incentivising the bidder.
103. The following documents which are not submitted with the Bid will be deemed to be part of the Bid.

Sl. No	Particulars
1	Notice Inviting tender
2	Instruction to the Bidders
3	Conditions of Contract.
4	Contract data
5	Specifications
6	Drawings

104. ELIGIBILITY CRITERIA:

To be eligible for qualification, applicants shall furnish the followings. **Non-furnishing of the following particulars shall be treated as ineligible.**

- a. Scanned copy of documents cost and required E.M.D as per the Clause No. 4 & 5 (i) of DTCN.
- b. **Scanned copy** of valid Registration Certificate, GST, PAN card along with the other tender documents and furnish the **Original** Registration Certificate, GST and PAN Card & other documents for verification **within 5 (Five) working days after opening of the Technical Bid** during **working hour** in the office of the Director of ports & IWT.
- c. License criteria as per Clause No.8 of DTCN.
- d. Information regarding **(i) Evidence of ownership of principal machineries / equipments in Schedule-C as per Annexure-I of Schedule-C (ii) Annexure-III of Schedule-C & (iii) Annexure-IV of Schedule-C** if required as per **Clause No.8.** scanned copy of all documents are to be furnished with the bid.
- e. The civil contractor / Firms / 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. licence; for execution of electrical installation and other electrical works and a copy of such M.O.U. should be attached with the tender as per the proforma **Schedule K** which shall form a part of tender. A copy of electrical licence 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 the civil contractor having valid registration in H.T. / L.T. electrical licence with the same name & style.
- f. **To qualify for award of the contract, each bidder in its name should have in the last five years (2021-22 to 2025-2026).**
 - (i) Achieved in any one financial year out of last 5 (five) years, a minimum annual financial turnover (in all classes of civil work **of 80%** of the Tendered value i.e., **Rs.114.30 cr.** Turnover certificate from Chartered Accountant mentioned in **UDIN** must be enclosed with the bid and failure to produce the certificate in support with UDIN will result in non- consideration of tender.
 - (ii) Financial turnover and cost of completed works of previous years shall be given weightage of 5% per year based on rupee value to bring to 2025-2026 price level.
 - (iii) The bidder Should have satisfactorily completed similar nature of works 1/3rd of the Estimated Amount put to tender i.e., **47.62 Cr.** in a single contract (Government) work only during last five years before the last date of the bid submission. Experience Certificates from the concerned Officer not below the rank of Superintending Engineer/ Executive Engineer or Equivalent need to be furnished by the bidder as per Schedule-D. **(Similar nature of works means construction of Shore based / river-based Harbour infrastructures/ Jetties/ Water front structure/ Quay/ slipway and other onshore structures including building works with Electrical installations and P.H.)**

QUALIFYING QUANTITY

Bidder should have executed the following items and quantity in multiple contracts during last five years before the last date of the bid submission.

(a)	Cement Concrete (Both P.C.C. & R.C.C.)	:-	14,000 Cum
(b)	Construction of Cast in Situ Piles of 450 mm dia & above	:-	558 Nos.
(c)	Filling (Both Earth & Sand)	:-	1,20,611 cum
(d)	Construction of cast-in-situ Diaphragm wall 600mm & above thickness using hydraulic grab	:-	312 m

The tenderer is required to submit attested copy of authentic record duly certificated by the concerned Executive Engineer or equivalent in support of such experience. Failure to produce proof in support will result in non-consideration of the tender.

(iv) **Bid Capacity**

Applicants who meet the minimum qualification criteria will be qualified only if their available bid capacity at the expected time of bidding is more than the total estimated cost of the works. The available bid capacity will be calculated as under.

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

A= Maximum value of works executed in any one year during the last five years (updated to the current price level) rate of inflation may be taken as 10 per cent per year (escalation factor) which will take into account the completed as well as works in progress,

B= Value of current price level of the existing commitments and ongoing works to be completed during the next years (Period of completion of works for which bids are invited); and

N= Number of years prescribed for completion of the works for which the bids are invited.

Note- I:- In case of a joint venture, the available bid capacity will be applied for each partner to the extent of his proposed participation in the execution of the works.

Note- II:- The statement showing the value of existing commitments and ongoing works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer-in-Charge not below the rank of an Executive Engineer.

Note-III:- The information on Bid Capacity as on the date of this bid is to be furnished as per the format in **Schedule-J**.

(v) **The base year shall be taken as indicated in Contract Data.**

Following enhancement factors will be used for the costs of works executed and the financial figures to a common base value for works completed in India.

Year before	Multiplying factor
One	1.10
Two	1.21
Three	1.33
Four	1.46
Five	1.61

(Applicant should indicate actual figures of costs and amounts for the work executed by them without accounting for the above mentioned factors)

In case the financial figures and value of completed works are in foreign currency the above enhanced multiplying factors will not be applied. Instead, current market exchange rate (State Bank of India BC selling rate as on the last date of submission of the bid) will be applied for the purpose of conversion of amount in foreign currency into Indian rupees.

Total value of Civil Engineering construction work performed in the last five years are to be furnished for which certificate from Chartered Accountant is to be furnished.

2021-2022 -----
 2022-2023 -----
 2023-2024 -----
 2024-2025 -----
 2025-2026 -----

105. Time Control :- (Vide Works Department Office Memorandum No.24716 dtd.24.12.2005 and No.8310 dtd.17.05.2006)

a) Progress of work and Re-scheduling programme.

- i) The Director / Engineer-in-Charge shall issue the letter of acceptance to the successful contractor. The issue of the letter of acceptance shall be treated as closure of the Bid process and commencement of the contract.
- ii) Within 15 days of issue of the letter of acceptance, the contractor shall submit to the Engineer-in- Charge for approval a Programme showing the general methods, arrangements, and timing for all the activities in the Works along with monthly cash flow forecast.
- iii) To ensure good progress during the execution of the work the contractors shall be bound in all cases in which the time allowed for any work exceeds one month to complete, 1/4th of the whole time allowed under the contract has elapsed, 1/2 of the whole of the work before 1/2 of the whole time allowed under the contract has elapsed, 3/4th of the whole of the work before 3/4th of the whole time allowed under the contract has elapsed.
- iv) If at any time it should appear to the Engineer-in-Charge that the actual process of the work does not conform to the programme to which consent has been given the Contractor shall produce, at the request of the Engineer-in-Charge, a revised programme showing the modifications to such programme necessary to ensure completion of the works within the time for completion. If the contractor does not submit an updated Programme within this period, the Engineer-in-Charge may withhold the amount of 1% of the contract value from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.

- v) An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.
- vi) The Engineer-in-Charge's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Engineer-in-Charge again at any time. A revised Programme is to show the effect of Variations and Compensation Events.

b) Extension of the Completion Date.

- i) The time allowed for execution of the works as specified in the Contract data shall be the essence of the Contract. The execution of the works shall commence from the 15th day or such time period as mentioned in letter of Award after the date on which the Engineer-in-Charge issues written orders to commence the work or from the date of handing over of the site whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, Government shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee / Security deposit absolutely.
- ii) As soon as possible after the Agreement is executed, the Contractor shall submit the Time & Progress Chart for each milestone and get it approved by the Department. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per milestone given in contract data.
- iii) In case of delay occurred due to any of the reasons mentioned below, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.
 - (1) Force majeure, or
 - (2) Abnormally bad weather, or
 - (3) Serious loss or damage by fire, or
 - (4) Civil commotion, local commotion of workmen, strike or lockout affecting any of the trades employed on the work, or.
 - (5) Delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract.
 - (6) In case a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost, or
 - (7) Any other cause, which, in the absolute discretion of the authority mentioned, in Contract data is beyond the Contractors control.

- iv) Request for reschedule and extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.
- v) In any such case a fair and reasonable extension of time for completion of work may be given. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing, **within 3 months** of the date of receipt of such request. Non-application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-in-Charge and this shall be binding on the contractor.

c) **Compensation for Delay.**

If the contractor fails to maintain the required progress in terms of clause-2 of P-1 Contract or to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the Government on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the Director, Ports & IWT (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day / month (as applicable) that the progress remains below that specified in Clause-2 of P-1 Contract or that the work remains incomplete. This will also apply to items or group of items for which a separate period of completion has been specified. **Compensation @ 1.5% per month of for delay of work, delay to be completed on per Day basis.** Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the Tendered Value of work or to the Tendered Value of the item or group of items of work for which a separate period of completion is originally given. The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Government. In case, the contractor does not achieve a particular milestone mentioned in contract data, or the rescheduled milestone(s) in terms of Clause-2.5, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of extension of time. Withholding of this amount on failure to achieve a milestone shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest whatsoever shall be payable on such withheld amount.

- d) Bonus for early completion ((Works Department Office memorandum No.12366 dt.08.11.2013.

Amendment to Para 3.5.5 (v) Note – iii of OPWD Code Vol.-I by inclusion.

For availing incentive clause in any project which is completed before the stipulated date of completion, subject to other stipulations it is mandatory on the part of the concerned Executive Engineer to report the actual date of completion of the project as soon as possible through FAX or e-mail so that the report is received within 7 days of such completion by the concerned Superintending Engineer, Chief Engineer & the Administrative Department. The incentive for timely completion should be on a graduated scale of one percent to 10 percent of the contract value. Assessment of incentives may be worked out for earlier completion of work in all respect in the following scale.

- Before 30% of the contract period = 10% of contract value.
- Before 20% to 30% of the contract period = 7.5% of contract value.
- Before 10% to 20% of the contract period = 5 % of contract value.
- Before 5% to 10% of the contract period = 2.5% of contract value.
- Before 5% of the contract period = 1% of contract value.

The amount of bonus, if pay able shall be paid along with final bill after completion of work.

e) **Management Meetings**

- i) PMC will conduct a monthly review meeting on last week of every month.
- ii) Either the Engineer or the Contractor may require the other to attend a management meeting. The business of management meetings shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- ii) The Engineer shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken to be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

Rescission of Contract (Amendment as per letter No.10639 dt.27.05.2005 of Works Department, Odisha):- To rescind the contract (of which rescission notice in writing to the contractor under the hand of the Executive Engineer, shall be conclusive evidence), 20% of the value of left over work will be realized from the contractor as penalty.

106. The bidders are required to go through each clause of P.W.D. Form **P-1** carefully in addition to the clauses mentioned here in before tendering.

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

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

108. Percentage rate contract (vide Works Department letter no.8310 dt.17.05.2006) In case of percentage rate tender:-

- i) The Contractor has to mention percentage excess or less over the estimated cost (In figures as well as words) in the prescribed format appended to the tender document.
- ii) Contractors participated in the tender for more than one work may offer conditional rebate. Rebate offer submitted in separate sealed envelope shall be opened, declared and recorded first. The rebate so offered shall be considered after opening of all packages called in the same Tender Notice. The Contractors who wish to tender for two or more works shall submit separate tender for each. Each tender shall have the Bid Identification No., Name & Sl. No. of the work (as per IFB) to which they refer, written on the envelope.

- iii) Only percentage quoted shall be considered. Percentage quoted by the Contractor should be accurately filled-in figures and words, so that there is no discrepancy.
 - (1) If any discrepancy is found in the percentage quoted in words and figures, then the percentage quoted by the Contractor in words shall be taken as correct
 - (2) If any discrepancy is found in the percentage quoted in percentage excess/ less and the total amount quoted by the Contractor, then percentage will be taken as correct.
 - (3) The percentage quoted in the tender without mentioning excess or less and not supported with the corresponding amount will be treated as excess.
 - (4) The percentage quoted in the tender without mentioning excess / less supported with corresponding amount does not tally with either to percentage excess or less then it will be treated as percentage excess.
 - (5) The percentage quoted in the tender without mentioning excess / less supported with corresponding amount if tallied with the percentage then it will be treated as to which side the amount tallies.
 - (6) The Contractor will write percentage excess/ less up to one decimal point only. If he writes the percentage excess / less up to two or more decimal points, the first decimal point shall only be considered without rounding off.
 - (7) The tender shall be written legibly and free from erasures, over writings or corrections of figures. Corrections, over writings & interpolations where unavoidable should be made by making out, initialling, dating and rewriting.
 - iv) In the contract P1 time is the essence. The contractor is required to maintain a certain rate of progress specify in the contract.
 - v) The quantity mentioned can be increased or reduced to the extent of 10% for individual items subject to a maximum of 5% over the estimated cost. If it exceeds the limit stated above prior approval of competent authority is mandatory before making any payment.
 - vi) The period of completion is fixed and cannot be altered except in case of exceptional circumstances with due approval of next higher authority.
 - vii) Bills for percentage rate tenders shall be prepared at the estimated rates for individual items only and the percentage excess or less shall be added or subtracted from the gross amount of the bill.
109. Guidelines laid down in Office Memorandum No.7885, Dated.23.07.2013, No.12366 Dated.08.11.2013 and other Memorandum/ Circular/ Notifications issued by Works Department, Odisha will be followed scrupulously for online bidding system.
110. Government of Odisha has appointed to IIT, Madras, Chennai as Project Management Consultancy for **“Construction of fishing harbor – Stage II at Astaranga (Nuagarh) in Puri district of Odisha”**, who will be assigned with the following scope of work.
- To carryout preparation of Tender Documents, assistance to Directorate of Ports & Inland Water Transport, Odisha & Executive Engineer, Fishery division, Odisha in selecting the contractor and rendering Project Management and construction supervision services.
- (a) Phase I : Finalization of Tender Process & Award of Contract
 - (b) Phase II: Execution of Work

(A) Preparation of Tender Document, Contacts, Agreement and Review of Detail Design.

- (i) Preparation of detail month-wise work schedule of physical and financial target.
- (ii) Preparation of tender document and assisting Directorate of Ports & Inland Water Transport, Odisha in selecting contractor for “**Construction of fishing harbor – Stage II at Astaranga (Nuagarh) in Puri district of Odisha**”.
- (iii) Evaluation of tenders , attending pre-bid meetings, clarifications to the queries, if any, from the intending tenderers (Contractors) and make modifications, if necessary, by issuing amendments etc and Short-listing of tenderers for the execution of the project.
- (iv) Review of working drawings made by the contractor for the construction of jetty.
- (v) Assisting the Directorate of Ports & Inland Water Transport, Odisha in the conclusion of contracts with the shortlisted tenderers.
- (vi) Assisting the Directorate of Ports & Inland Water Transport, Odisha conducting the meetings, negotiations with the tenderers, if required.

(B) Project Management and Construction Supervision Services.

Consultants shall provide the construction management & supervision services for the project including:

- (i) Review Contractor's Works Schedules and submit recommendations to the Executive Engineer, Fishery division, Odisha.
- (ii) Review of monthly & weekly progress reports submitted by Contractor.
- (iii) Monitoring of the project activities as per the contractual schedules.
- (iv) Review of work procedures.
- (v) Locating all reference points and checking of the setting out of the Works by the Contractor.
- (vi) Monitoring construction work to ensure compliance with codes and design drawings.
- (vii) Inspection / checking and witness testing where required, of work executed at site, materials & equipment received at site with recommended spares as per contract.
- (viii) Organizing site meetings to review construction progress and HOLD status.
- (ix) Checking and measuring quantities of accepted items of Works and making recommendations for milestone payments to Contractor.
- (x) Recommending Executive Engineer, Fishery division, Odisha, any changes in the design or specifications which may be proven necessary or desirable during the course of the Contract.

- (xi) Notifying the Executive Engineer, Fishery division, Odisha of any requirement for a variation and estimated cost of the Variation Order.
- (xii) Providing all available information and support in assisting the Executive Engineer, Fishery division, Odisha in the assessment and resolution of claims of the Contractor.
- (xiii) Carry out final inspection prior to the final commissioning of the jetty and submission of final completion drawing.

111. As per Clause 111, any clarification/ queries during tender process period/ execution period the bidder/ successful bidder may be correspondence with Project Management Consultancy i.e., **IIT, Madras, Chennai** with a copy to Director, Ports & IWT.

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Clauses 111 (One Hundred Eleven) Only

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATION

01. Need for Establishment of fishing harbour & allied structures at Astaranga in Puri district, Odisha

- 1.1. The existing fishery harbour at Astarang (Nuagarh) in Puri district is situated on the right bank of Devi River about 4 km upland of confluence point to Bay of Bengal. The Stage I construction of the fishery harbour was completed during 1993-94. During August 1991, the river Devi was in floods caused severe damage to the jetty under construction.
- 1.2. The Government of Odisha has proposed for construction of Stage II of fishery harbour at Astaranga (Nuagarh) to provide fish landing facilities to the increased number of fishing vessels along with the fishermen of Nuagarh and surrounding fishing villages.
- 1.3. The project comprise the following principal components
 - Provision of safe landing and berthing facilities for mechanised fishing vessels (MFVs) to operate throughout the fishing season.
 - Construction of shore-based establishments and organisation of distribution and marketing arrangements for prawn and fish products through the Fishery Terminal Organisation (FTO) to be setup.

The Department of Fisheries (DoF), Government of Odisha (GoO) had sent a proposal to the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying (MoFAH&D), Government of India (GoI) for developing the Stage II fishery harbour at Nuagarh under the Centrally Sponsored Scheme (CSS).

The proposed fishing harbour could be designed for a total fleet size of 1960 Nos. comprising of 268 Nos. of 15m trawlers, 64 Nos. of 12m purse seiner and 1628 Nos. of 9m motorised/ traditional crafts.

Particulars	Details
Name of Project Proponent	Directorate of Fisheries, GoO
Category of the Project	7(e)- Ports & Harbour, Category-B
Location	Astaranga, Puri, Odisha
Fish Landing Capacity	55,876.00 TPA
Land	17.39 acre
Harbour Design capacity	▪ 1960 mechanized fishing vessels ▪ 1628 numbers of 9M Motorized Craft ▪ 64 numbers of 12.0 m purse seiner ▪ 268 numbers of 15.0 m trawlers
Power Requirement	60 kWh/Day load will be required for operation / illumination of Harbour Complex. The Power Supply will be made available from Public Distribution system of NESCO
Water Requirement	230 KLD
Manpower Requirement	During Construction- 100 During Operation-200

Employment Generation (Direct and Indirect) due to the project	About 3685 fishermen and fish merchants are directly engaged in the day long operation inside the Harbour and 10,000 people will be indirectly benefited in engaging different fishing related activities for their livelihood.
Estimated project cost	INR 142.58 Crores

02. Environmental Data

Tides

Tide data was continuously collected for a period of 17 days at 15 minutes interval and carried out Harmonic Tidal Analysis for short period observations during the Stage I engineering investigations. The computed tide levels were compared with the nearby fishery harbour viz. Paradip, and found compatible.

The following values of tide levels are adopted for the site.

- ☐ MHWS = + 2.40 m
- ☐ MHWN = + 2.00 m
- ☐ MSL = + 1.65 m
- ☐ MLWN = + 1.30 m
- ☐ MLWS = + 0.90 m

Rainfall

The proposed location has cool breeze flowing from the Bay of Bengal which makes the hot and tropical weather of Puri during the summer tolerable in compare to the places of interior of Odisha. The weather here remains humid in summers which is said to be between the months of March and June. In the months of July to August the temperature remains moderate and the months between October and January are said to be winter season. During the month of June proposed location witnesses the south west monsoon and the temperatures tends to fall to around 28° C up to the month of October.

Cyclone

As the district lies on the coastal belt of Bay of Bengal, the district tends to have threat to cyclone and tidal disasters. Cyclones ordinarily bring in their trail heavy rains causing severe floods and saline inundation.

Wind

Winds are fairly strong particularly in the coastal regions in the summer and monsoon months. The wind speeds are less in the post-monsoon months and the cold season. In the post-monsoon and the cold seasons winds blow from a northerly or north easterly direction in the mornings and veer to a southerly or south-easterly direction in the afternoons. In the summer and monsoon month's winds are mainly south-westerly or southerly, the afternoon winds being more southerly than in the mornings.

Survey

In order to arrive at the bed contours of River Devi at the harbour site, hydrographic survey was conducted. While conducting the lead line sounding, water depths were measured with the help of echo-sounder from an outboard engine. The position of the boat where soundings were taken was recorded using DGPS instrument set-up in the boat. In the shallow portions viz. near banks of rivers, where sounding could not be taken by echo-sounder, the bed levels were taken by extending tacheometric survey to such

areas. After reducing the sounding to the survey datum, the river bed contours were plotted at regular intervals to represent the bathymetry.

03. Planning of water front and navigation facilities

General

The size of the Quay proposed at Astaranga is decided on the basis of dimension of the largest vessel it is required to accommodate mooring facilities, utility services for passengers and river current.

☺	Landing quay	-	200 m
☺	Repair quay	-	47 m
☺	Outfitting quay	-	60 m
☺	Idle berthing quay	-	205 m

The criteria for fixing of the top level of the fish landing quay is that it should facilitate easy unloading of fish baskets/boxes by manual labour during mean high water of springs. Similarly, it will be very difficult for the boats to unload fish alongside the quay at mean low waters of springs, if the top of the quay is more than a man's height from the deck level of fishing vessel. Keeping in view the requirement of 15 m and 12 m vessels and the tide levels prevailing during spring high and low waters at site, the crest level of the fish landing and other quays like outfitting, idle-berthing and repair quay are calculated as below: Mean High Water Springs (MHWS) = + 2.40 m Allowance for Surface water/Storm Surge/wave ripples = + 0.60 m Allowance for clear free board = + 0.50 m Top Level of Quay = + 3.50 m Also, as per Admiralty chart, Table V Part-2, the Highest Astronomical Tidal (HAT) level for the site is +2.90 m (i.e. at Devi River Entrance) considering free board of +0.50 m, the top level can be fixed at +3.40 m. In the existing fishing harbour (Stage – I), the top level is kept at +3.60 m. Hence, for uniformity, top level of quay is proposed at +3.60 m for the Stage – II development. The low level platform will be connected to top of high level quay of +4.50 m with a series of leading RC steps of 2.5 m wide. The differential landing platforms would, thus, enable the 14 m and the 12 m vessels to land their fish catch during both high and low waters. The quays are provided with bollards and mooring rings/hooks for securing the boats to the quays rigidly. C.I. bollards are spaced at closer interval of 10 m with mooring rings/hooks. Used rubber tyre fenders are provided at regular interval all along the fish landing quays to absorb the impact of fishing boats while docking and undocking operations.

Vessel Sizes

The vessel specifications considered for the proposed jetty is given in the Table 2. The design vessel specification is taken from IS 4651 (Part-III) 1974.

Table1 Vessel sizes expected at the facilities

Overall length of vessel (m)	Draft (m)	Beam (m)
15 m long trawlers	1.8	5.0
12 m long purse-seiners	1.5	3.0
9 m FRP OBM	1.0	2.0

Facilities Planning

The salient features of the proposed facilities would be as follows:

Table 2 Summary of Proposed Facilities

S. NO	SUMMARY OF PROPOSED FACILITIES	Area
1	RCC Diaphragm wall	624m
2	Reclamation	Up to (+) 3.6m
3	R.C. sloping hard ramp	1680 sqm
4	Fish loading and vehicle parking area	5243 sqm
5	Internal road	19920 sqm
6	Main track & Repair track	2700 sqm & 7200 Sqm
7	Fish handling and auction hall	2627 sqm
8	Fishery administrative office	181.64 sqm
9	Fisherman gear shed (4nos)	645.90 sqm
10	Net mending shed (2nos)	1000.00 sqm
11	Fisherman rest shed	213.50 sqm
12	Boat repair shop	100.45 sqm
13	Restaurant	127.65 sqm
14	Fish merchant dormitory	320.90 sqm
15	Radio communication tower	199.82 sqm
16	Navigational aids	2 nos
17	Public toilet (3nos)	490.71 sqm
18	Guard house with main gate	31.62 sqm
19	Fresh water overhead tank	125000 litre
20	Sea water overhead tank	20000 litre
21	Underground sump	50000 litre
22	Electrical power supply and general lighting	-
23	Greenery	324 sqm
24	CC surface	2858 Sqm
25	WBM surface	22304 Sqm
26	Beach revetment	533 Rm
27	Market complex (2nos)	896.00 sqm
28	Merchant hall (2nos)	713.60 sqm

04. General Design Considerations

The main considerations followed the design of structures are:

- Structural safety and stability.
- Availability of material, equipment and expertise.
- Constructability and ease of maintenance.
- Durability.
- Maximum DWT of ship, which be berthed during life time of the structure.

Grade of Concrete and Steel

Concrete and steel grade will be as per IS: 456-1978 which is as follows

Table 3 Grade of Concrete and Steel

Structures	Materials	
	Concrete	Steel
Piles	M35	Fe500D
Diaphragm wall	M35	Fe500D
Beams	M35	Fe500D
Deck slab	M35	Fe500D
Wearing Coat	M35	-

Cover to Main Reinforcement

The cover to the main reinforcement used for the design of facilities is used as follows:

Piles	:	75 mm
D – wall	:	75 mm
Pile muff	:	60mm
Beams	:	50 mm
Deck Slab	:	40mm

05. METHODOLOGY**Design Codes and Standards**

The design has been carried out in accordance with the applicable Indian codes and standards. Whenever, Indian standards are not available for a particular application, other reputed International codes or guidelines may be used. List of recommended codes and standards is given below in the Table 4.

Table: 4 - Indian Standards, Codes and Publications

IS: 456	Code of Practice for Plain and reinforced Concrete
IS: 1893 Part 1	Criteria for Earthquake resistant Design of structures
IS: 875 Part 3	Code of Practice for Design Loads for Building and Structures Wind Load
IS:4651 Part 2	Code of Practice for Planning and Design of Ports and Harbours- Earth Pressure
IS: 4651 Part 3	Code of Practice for Planning and Design of Ports and Harbours-Loadings

IS: 4651 Part 4	Code of Practice for Planning and Design of Ports and Harbours-General Design Considerations
IS: 4651 Part 5	Code of Practice for Planning and Design of Ports and Harbours-Layout and Functional requirements
IS:2911PartI/Sec2	Code of Practice for Design and Construction of Pile Foundations-Bored Cast in situ piles
SP16	Design aids to IS: 456
SP34	Handbook on Concrete reinforcement and Detailing

Analysis

3D analysis has been carried out using conventional STAAD ProV8i package for various critical load combinations. The P- δ analysis shall be carried out and Soil-Structure interaction analysis is performed by using springs as a representation of soil. The analysis of the structure is carried out using STAAD PRO, by idealizing the soil support using springs for piles. The spring is placed at 1.0 m interval for piles.

Design Methodology

The various components of the structures are designed according to various standards mentioned in section 5.1. All the elements are designed as per Limit State of Collapse and checked for Limit State of Serviceability.

Deflection

Deflection due to all loads including creep and shrinkage should not exceed span/250 as given in Clause 23.2 of IS 456:2000 and also as per vendor requirements.

Crack width

Crack width is checked in accordance with IS 4651 (Part 4)-2014 As a guide, assessed surface width of cracks at points nearest to the main reinforcement should not exceed 0.004 times the cover of the main reinforcement or maximum crack width in different zones given in Table 8.2, whichever is minimum. Limit State of Serviceability load combinations is considered for crack width calculation.

Table 5 - Maximum Crack Width in Different Zone

(Clause 8.3.4)

All dimensions in millimetres.

Sl No.	Exposure Zone	Maximum Crack Width	
		Sustained Load	Transient Load
(1)	(2)	(3)	(4)
i)	Atmospheric zone — above splash zone and where direct wave or spray impingement is infrequent	0.2	0.3
ii)	Splash zone — zone between the chart datum and the design wave height above the mean high water springs	0.1	0.2
iii)	Continuous seawater immersion zone — below splash zone upto seabed level	0.2	0.3
iv)	Below seabed level	0.3	0.3
NOTES			
1 Sustained load — Dead load plus 50 percent of full uniformly distributed live load + earth pressure.			
2 Transient load — Dead load plus berthing load and full crane load or full live load uniformly distributed + earth pressure.			

DESIGN LOADS

The following loads are considered to be acting on the structure.

Dead Loads

Dead load consists of the weights of structure. Unit weight of various materials used in the structural members is taken as follows:

- a. Water - 10.0 kN/m³
- b. Seawater - 10.25 kN/m³
- c. RCC - 25 kN/m³
- d. PCC - 24 kN/m³
- e. Steel - 78.5 kN/m³

Live Loads

Live load considered for the design of the deck system is given below as per IS 4651 part

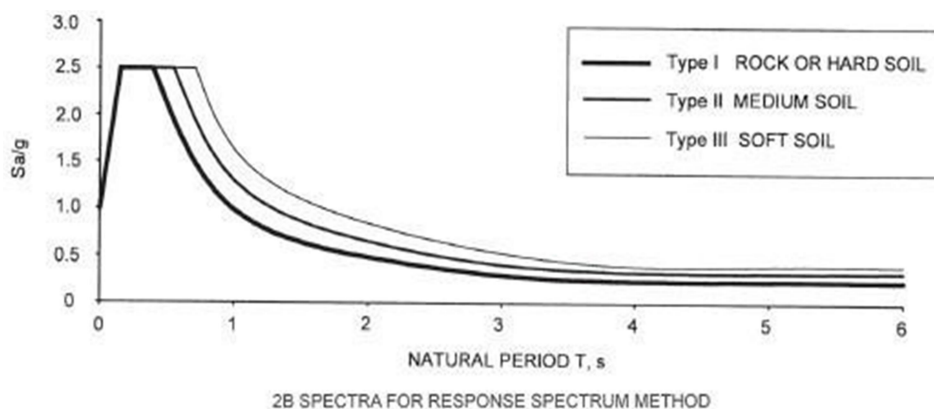
Load	Berth
Uniformly distributed load considered on the deck	1 T/m ²

Seismic Force

Seismic force is calculated according to IS 1893-2016, considering 100 % dead load + 50 % live load acting on the structure. As per IS code, Odisha is under Zone II and the basic horizontal seismic coefficient is calculated accordingly. The seismic force calculations are given below. Design Horizontal seismic Coefficient

$$A_h = \frac{Z}{2} \times \frac{I}{R} \times \frac{S_a}{g}$$

- Where, Z = 0.1, Zone factor (Table 3 of IS 1893-2016)
I = 1.5, Importance factor (Cl. 6.4.2 of IS 1893-2016)
R = 3.0, Response reduction factor (Table 9 of IS 1893-2016)
 $\frac{S_a}{g}$ = Average Response acceleration coefficient (Cl. 6.4.2)



Berthing Force

Berthing loads are calculated in accordance with IS 4651 (part III) - 1974..

Mooring Load

Mooring loads are calculated in accordance with IS 4651 (part III) –1974.

Current Load

The current loads on the structure shall be applied on the submerged parts of the structure assuming the maximum current velocity as 4.0m/s

Calculation of Soil Spring Values

The soil springs are used to idealize the soil support for pile. The following formula be used to calculate the individual spring constants

Top Spring Value

$$K_{(1)} = \frac{BL}{24} (7K_{s(1)} + 6K_{s(2)} - K_{s(3)})$$

Intermediate Spring Value

$$K_{(i)} = \frac{BL}{12} (K_{s(i-1)} + 10K_{s(i)} + K_{s(i+1)})$$

Bottom Spring Value

$$K_{(n)} = \frac{BL}{24} (7K_{s(n)} + 6K_{s(n-1)} - K_{s(n-2)})$$

Where,

B	=	Diameter of pile
L	=	Segment length of pile (Spacing between springs)
Diameter	=	1.0 m
Ks	=	Modulus of sub grade

Load Combinations

Load combination factors for the analysis is in accordance with IS 4651 (PART4)- 2014.

The following load combination is considered in the analysis and is shown in Table 7.

Table 1 Partial Load Factors for Loads in Limit State Design
(Clauses 5.1 and 7.1.2)

Sl No.	Loading	Partial Load Factor					
		Limit State of Serviceability		Limit State of Collapse			
		Short Term	Long Term	Normal	Extreme/ Survival	Temporary	Reversal
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i) Dead load (DL)		1.0	1.0	1.5	1.2	1.2	0.9
ii) Vertical live load:							
a) Impact or dynamic load (DyL)		1.1	0.5	1.5	1.2	1.2	0.9
b) Static(LL)		1.0	0.5	1.5	1.2	1.2	0.9
iii) Earth pressure (EP)		1.0	1.0	1.2	1.0	1.0	1.0
iv) Hydrostatic force (HyF)		1.0	-	1.0	1.0	1.0	1.0
v) Wave and current force (WL and CL)		1.0	-	1.2	1.0	1.0	1.0
vi) Berthing force(BF)		1.0	-	1.5	1.0	-	1.5
vii) Mooring force(MF)		1.0	-	1.5	-	-	1.5
viii) Working wind force (WWiF)		1.0	-	1.0	-	-	-
ix) Extreme wind force (EWiF)		-	-	-	1.2	-	1.5
x) Shrinkage		-	1.0	-	-	-	-
xi) Creep		-	1.0	-	-	-	-
xii) Temperature (TempL)		-	1.0	-	-	-	-
xiii) Seismic force (EL)		1.0	-	-	1.2	-	1.5
xiv) Tsunami force (TL)		-	-	-	1.2	-	-
xv) Secondary stresses (SS)		1.0	-	-	-	-	-

Activate Wind

Table 1 Partial Load Factors for Loads in Limit State Design
(Clauses 5.1 and 7.1.2)

Sl No.	Loading	Partial Load Factor					
		Limit State of Serviceability		Limit State of Collapse			
		Short Term	Long Term	Normal	Extreme/ Survival	Temporary	Reversal
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i) Dead load (DL)		1.0	1.0	1.5	1.2	1.2	0.9
ii) Vertical live load:							
a) Impact or dynamic load (DyL)		1.1	0.5	1.5	1.2	1.2	0.9
b) Static(LL)		1.0	0.5	1.5	1.2	1.2	0.9
iii) Earth pressure (EP)		1.0	1.0	1.2	1.0	1.0	1.0
iv) Hydrostatic force (HyF)		1.0	-	1.0	1.0	1.0	1.0
v) Wave and current force (WL and CL)		1.0	-	1.2	1.0	1.0	1.0
vi) Berthing force(BF)		1.0	-	1.5	1.0	-	1.5
vii) Mooring force(MF)		1.0	-	1.5	-	-	1.5
viii) Working wind force (WWiF)		1.0	-	1.0	-	-	-
ix) Extreme wind force (EWiF)		-	-	-	1.2	-	1.5
x) Shrinkage		-	1.0	-	-	-	-
xi) Creep		-	1.0	-	-	-	-
xii) Temperature (TempL)		-	1.0	-	-	-	-
xiii) Seismic force (EL)		1.0	-	-	1.2	-	1.5
xiv) Tsunami force (TL)		-	-	-	1.2	-	-
xv) Secondary stresses (SS)		1.0	-	-	-	-	-

Activate Wind

Governing Forces

The governing STAAD Results for Main Beam and Diaphragm wall have been summarized as below:

Quay structure

Main Beam			
STAAD Data - Collapse Condition			
Design bending moment (Sagging-Bottom)	=	215	kNm
Corresponding Torsion	=	0	kNm
Design bending moment (Hogging-Top)	=	364	kNm
Corresponding Torsion	=	0	kNm
Design Shear force	=	386	kN

Corresponding Torsion	=	0	kNm
STAAD Data - Serviceability Condition			
Design bending moment (Sagging-Bottom)	=	143	kNm
Corresponding Torsion	=	0	kNm
Design bending moment (Hogging-Top)	=	245	kNm
Corresponding Torsion	=	0	kNm

Diaphragm wall			
STAAD Data - Collapse Condition			
Design bending moment (Tension)	=	728	kNm
Corresponding Torsion	=	0	kNm
Design bending moment (compression)	=	45	kNm
Corresponding Torsion	=	0	kNm
Design Shear force	=	449	kN
Corresponding Torsion	=	0	kNm
STAAD Data - Serviceability Condition			
Design bending moment (Tension)	=	488	kNm
Corresponding Torsion	=	0	kNm
Design bending moment (compression)	=	30	kNm
Corresponding Torsion	=	0	kNm

7.0. GEOTECHNICAL INVESTIGATION DATA

The subsoil investigations were carried out at two land side locations, approximately 200 m and 300 m from the eastern end of existing quay towards east side. The coordinates of these two locations i.e. borehole no. 1 are 2208590.75 N 430961.60 E and borehole no. 2 are 2208494.78 N 431025.20 E.

The Standard Penetration Test (SPT) is the most extensively used in- situ test. The test is carried out in a borehole using a split spoon sampler. The test furnishes data about resistance of the soils to penetration which can be used to evaluate standard strength data such as N value (number of blows per 30 cm of penetration using standard split spoon sampler) of the soil. The test is carried out as per IS 2131 1981. The procedure of Standard Penetration Test is given below: The borehole is advanced to the depth at which the SPT has to be performed. The bottom of the borehole is cleaned. The split spoon sampler resting on the bottom of the borehole shall be allowed to sink under its own weight. The sampler shall be seated 15 cm with the blows of the 63.5 kg hammer falling through a height of 75 cm. Thereafter the sampler shall be driven by 30 cm or 50 blows. The number of blows required for each 15 cm penetration is recorded. The first 15 cm of drive may be considered as seating drive. The total number of blows required for second and third 15 cm of penetration is called the penetration resistance "N". The Split Spoon Sampler is used to obtain disturbed samples.

From the soil investigation it is observed that on analyzing the Lab result sheet, it is seen that in BH-I from +3.00 m. Ground level to -20 Mt, At the location of borehole no.1, the soil properties vary from sandy clayey silt with traces of clay to silty sand.

Table 4.1 Sub Soil Description

BH No	Depth in m	Soil Description	SPT 'N' value from bore log
1	2.3	Grey silty clay	7
1	4.0	Grey clayey sand	16
1	6.0	Grey silty sand	19
1	8.0		14
1	10.0	Grey silty sand	14
1	12.0	Grey silty sand	7
1	14.0	Grey silty sand	17
1	16.0	Brownish sandy silt	37
1	18.0	Grey silty sand	18
1	20.0	Grey silty sand	16

TECHNICAL SPECIFICATION OF CIVIL PORTION OF WORK

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

- | | |
|--|---|
| 1. Cement | Will be as per I.S. 269/255 (However the grade of cement to be selected by the Engineer-in-Charge of work and compressive cube test before commencement of work in each batch). |
| 2. Steel | I.S. 432 (Plain) and 1786 (Tor) |
| 3. Vibrator | I.S. 7246 |
| 4. Aggregate | I.S. 383, I.S. 515 |
| 5. Water for mixing and curing | Shall be clean, free from injurious amount of oil, salt, acid, vegetable materials and other substances and harmful to concrete in conformity to I.S. 456 and I.S. 2025. |
| 6. Sand/ Fine Aggregate | I.S. 2116, 383 |
| 7. Binding wire | I.S. 280 (galvanised minimum 1 mm) |
| 8. Rain water pipe | I.S. 2527 |
| 9. Construction joints | I.S. 3414 |
| 10. Steel Window Frame | I.S. 1038/83 |
| 11. Steel Door Frame | I.S. 4351/75 |
| 12. Fitting & Fixtures for joinery works | Conforming to I.S. 7452/82 strictly confirm to I.S. specification and as per direction of Engineer-in-Charge. |

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

ITEM OF WORK

1. Concrete shall be with conformity to I.S.456.
2. Foundation shall be with conformity to I.S.1080.
3. Stone masonry (R.R.) shall be with conformity to I.S.1597 (Part-I)
4. C.R. Masonry shall be with conformity to I.S.1597.
5. Brick masonry shall be with conformity to I.S.2212.
6. Cement plastering shall be with conformity to I.S.9103 & 6925.
7. Mortar shall be with conformity to I.S.2250
8. White and colour washing shall be with conformity to I.S.6278.
9. CC in foundation shall be with conformity to I.S.2571.
10. Anti-Termite Treatment shall be with conformity to I.S.6813. (Part – I & Part – II)
11. Painting to all surfaces shall be with conformity to I.S.2395 (Part – I & Part – II)
12. DPC shall be with conformity to I.S.3067
13. Tarfelt treatment shall be with conformity to I.S.1346
14. Mosaic flooring with conformity to I.S.2114
15. Steel painting shall be with conformity to I.S.1477 (Part – I & Part – II) I.S.1661

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 Closet

viii. European Water Closet & Low Level Flushing Cistern.

- | | | |
|--|---|--|
| a. C.I. High Level Flushing Cisterns | : | Sushila Industries Prabhat Iron Foundry / East India Steel / I.S.I. marked. |
| b. H.C.I. Soil Waste Pipes: | : | Confirming to I.S.I. 1729-1954, having I.S.I. Mark |
| c. C.P. Bath Room Fittings | : | Plaza/ Jaquar I.S.I. marked & confirming to-latest ISS |
| d. Brass Fittings | : | Shakti/Anupama /Luster/1.S.I.Marked |
| e. Gunmetal Valves | : | Anupama / Leader / B.S.I.S.I. marked |
| f. G.I. Pipes (Medium Class) | : | Manufactured by TATA / JINDAL / B.ST. having I.S.I. Mark |
| g. Galvanised Iron fittings Galvanised Iron fittings | : | I.S.I. marked C/R brand |
| h. Paints | : | Asian / Berger / Jonson/Confirming to I.S.S |
| i. Cast Iron Manhole cover frame | : | Sushila Industries / Prabhat Iron Foundry / East India Steel make confirming to ISS 7.26 |
| j. Stone Ware Pipes & Fittings | : | Manufactured by Odisha Ceramic Industries / Odisha industries / Keshab Ceramic confirming to I.S.S. Specification No.651 / 1980 {Grade A} |
| k. 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. Bricks shall be well burnt, uniform deep red, cherry or copper 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 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 confirm to I.S.:226/1962 standard quality or IS:432/1966 - Grade-I. 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 Polyethylene 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 Cantilever 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 value, 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. 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 / | : | 110mm - 2.5 to 3mm |
| NIL - Traffics | | |
| Light / NIL in Heavy Traffic | : | 110mm 3.7 to 4.3mm |
| e) Standard Confirming to Attributes Confirms to Standard No. | | |
| i. Fittings & Wall B.S.4514, DIN | : | DIN 19534 I.S.7834 - PVC (Rigid) |
| 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 |

a. 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 gent 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/Cm^2), 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 0.4 Kg/Cm^2 for pipes under I.S.-1729/1964 and at a pressure 0.7 Kg/Cm^2 for pipes under I.S. 3989-1970 without showing any sign of leakage, sweating 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 confirming to I.S.S. and bearing ISI Marks manufactured by reputed Firms and approved brands as specified. The pipes shall confirm 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 confirm 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	0.567
20	1.503	0.680
25	2.498	1.077
32	5.232	1.559
40	6.082	2.268
50	6.691	3.232
65	10.149	6.840
80	13.281	8.845

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 0.75mm elsewhere. The width of the trench shall be the nominal diameter of the pipe plus 350mm. 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, hunching 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 bevelled 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 channelling 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 confirm 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.

TECHNICAL SPECIFICATION OF INTERNAL ELECTRIFICATION WORKS

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

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

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

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

- a. Switch and ceiling rose are required
- b. In case of wall brackets, bulk head fittings, cables as required up to the lamp holders]
- c. Bushed conduit for porcelain tubing where cables pass through walls.
- d. All wood or metal blocks, boards and boxes, R.J. Boxes sunks or surface type including those required for fan regulator but excluding those under the distribution board and main control switch.
- e. Earth wire from 3 pin socket point to the common earth including connection to the earth drolley.
- f. Earth wire of 16SWG/14 SWG/G.I./Copper wire for loop earthing of the fixture
- g. All fixing accessories such as clips, nails, screw, plug, rawl plug, wooden plug, round blocks etc. as required
- h. Joint for junction boxes and connecting the same as required
- i. Connections to ceiling rose or connection socket outlet, lamp holders, switch, fan regulators etc

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

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

Sub main shall include the earth wire of adequate size main distribution Board up to sub distribution board B.B. such wiring has been classified on the basis of length. For the internal lighting, either surface conduct wiring system or recessed conduit or batten wiring system shall be provided as specific in the bill of quantities and working drawings.

Conduit wiring

For recessed conduit wiring system the conduit shall be placed in the ceiling / columns etc. before the casting of the slab or column. The conduit pipes shall be properly positioned and fixed so that it will not be displaced at the time of concreting. The junction boxes provided shall be so arranged that its cover will be flushed with the finished surface of the ceiling or column.

For placing the conduits in the walls, chases of ample dimension shall be made neatly to fix the conduit in a desired manner. The conduit pipe shall be fixed by means of staple or saddles not more than 600mm apart. Fixing of standard bends or elbows shall be avoided and all curves maintained by bending the conduit itself with a long radius will permit easy drawing of the conductors. Suitable inspection boxes shall be provided to permit periodical inspection and removal or replacement of wires if necessary. There shall be mounted flush with the wall with holes in the cover of the box.

The switch or regulator box shall be made of metal on all sides except on the front where backlight sheet or Perspex cover painted to match the colours of the wall shall be used I case of surface wiring system. For recessed wiring system, these boxes shall be made flush with the conduit of each conduit or section shall be completed before conductors are drawn in. The entire system of conduit after installation shall be tested or mechanical strength and electrical continuity throughout the earthing of the entire installation shall be carried out in accordance with I.E. Rules and standards. The number of wires drawn in the conduits shall not exceed the numbers those specified in Indian standard specification No.732.

Main and Sub distribution Boards:

The position of main boards for lighting and sub distribution board for different buildings are approximate and the exact location shall be given to the successful tenderer at the time of installation. The scope of this specification includes installation of the panel boards and distribution boards and making necessary connections. The installation of the boards shall be done strictly in accordance with the details supplied with the specifications; the instructions supplied by the switchgear manufacturer, Indian standard specifications and H.E. rules. The supplier shall submit the details of installations to the purchaser for his consideration and approval, prior to installation.

When the switchboards are wall / column mounted top, they shall, be mounted on a suitable angle iron framework. All the metal supports etc. shall be protected against corrosion. The mounting height for such switchboards shall be such that it can be conveniently operated.

Earthing

Earthing shall generally be carried out in accordance with the requirements of Indian Electricity Rules and the relevant rules and regulations of electrical supply authorities. The complete earthing work for the installation covered by this specifications shall also be provided taking into account Indian Standard Specification No.IS:732 and IS: 3043. The earthing system adopted shall also have adequate mechanical strength.

The work shall include earthing of noncurrent carrying metallic parts of all the equipment, light fittings, conduit pipes, cable and cable supports and earth strips (the design to be approved by the purchaser) and all the inter connection between the earthing system to a value mutually agreed upon\ between the purchasers and the supplier.

Installation, testing and commissioning:

The supplier shall be responsible for the installation testing the commissioning of all the equipment and materials supplied by him against this specification. This shall also include the provision of miscellaneous wiring and supports and earthing in compliance with Indian Electricity rules and to the full satisfaction of the Government Electrical Inspector. All small items such as clamps, bolts, nuts, racks, supports, miscellaneous wiring etc. required to make the installation complete, shall constitute the part of major items specified in the bill of quantities and the tenderer should quote for each item taking these into consideration.

The responsibility of the supplier shall include receiving all the equipment and materials at site, storage for required period, handling the same at the site of erection, final execution, erections, revisions of equipment, if any, testing and commissioning and handing over the installation complete in all respect to the entire satisfaction of the purchaser's authorized representative. The supplier shall make good of all the damaged equipment and materials during this period at his own expense. The supplier shall submit sample of each and every equipment and materials for the final approval of the purchaser's representatives immediately after the acceptance of offer. All the equipments and materials shall be supplied exactly as per to the approved samples. If at any stage the purchaser brings to the notice of the supplier any discrepancy or defect the supplier shall replace the same at his own expense.

The supplier shall render all reasonable assistance to the purchaser in getting the installation approved by the Government Electrical Inspector prior to the energisation and supply necessary drawings, test certificates and both for tests carried out at the factory and site as well as the tests which the inspector may demand. In case any addition of alternations are required, to be made in the installation or in the equipment as per the directive of the Government Electrical Inspector / Local Authorities, he same will have to be carried out by the supplier, at his own expense.

The position of light fittings, main board, switches, sockets and routes of pipes and cables shown in the drawings are only indicative. The actual position of these shall be decided at site at the time of execution joints by the supplier and the purchaser's authorized representative. The position of light fittings, pipes and board if required, to be changed / shifted due to the change in the building design etc by the purchaser's authorized representative, the same shall be carried out at no extra cost.

All the materials supplied to the contractor according to the Contract condition will be subject to inspection and approval of the officer or his representative from time to time. The contractor will provide all facilities of such inspections free of cost. At the time of inspection, the owner of his representative will have full liberty to reject any such materials, which does not conform to the specification / requirement. No claim for any rejected materials will be entertained by the owner. The contractor will remove all rejected materials from site at his own cost. No surplus materials procured by the contractor will be accepted by the owner. The contractor will be responsible to get the Electric installations cleared by the Electrical Inspector of Odisha Government. Only the inspection fee will be reimbursed by Department on production of challan copy.

Installation and Maintenance Tools

The supplier along with the tender shall furnish a complete list of tools, appliances and accessories required for the installations of switch grass, light fittings, pipes cables and wires.

Drawings

All drawings, test certificates, instructions manuals etc. shall be in English Language and all dimensions and weights shall be in metric units.

The tenderer shall submit with the tender general arrangement drawings for the installations work, typical methods and cabling and cables supports pipe work and pipe supports, typical methods of earthing and fixing of light fittings earthing etc. as offered by him in the tender.

The contractor shall submit for he purchaser's approval all layout, the general arrangement drawings as well as the typical details of all types of installation work in three sets before commencing the manufacture and the site installations work well in advance so that the site work shall not suffer.

After obtaining approval of the above drawings the contractor shall supply three sets of the following drawings:

- a. The arrangement and support of conduit pipe
- b. The position of light fittings, switches / plug socket and switch boards
- c. Earthing installations
- d. Layout plan showing the entire cable network

On completion of work, the successful tenderer shall supply one set of tracing in transparent linen and five sets of prints of all drawings incorporating all the changes / modifications affected during the execution of the contract. All wiring diagrams shall indicate clearly, the switch board, the runs of main and sub main wiring and the position of all the points with their controls. All the circuits shall be clearly indicated and numbered in accordance with IS:375. The technical literatures and operating instructions and the maintenance manuals shall also be supplied in triplicate to the purchasers after the completion of the installations work.

Test:

Manufactures standard tests in accordance with Indian Standard and other standards, adopted shall be carried out on all the equipment and accessories covered by this specification so as to ensure efficient and satisfactory performances of all the components and also the equipment as a whole under working conditions at site. The tenderer shall submit a complete list of all such tests. If the purchaser, if so desired for special tests, to be carried out, under certain conditions the same shall be made by the successful tenderer at his own expenses. All equipment shall be tested at site before the commissioning in accordance with the adopted standard and Indian Electricity Rules. Voltage test shall be carried out on each circuit on completion of wiring and cabling.

Technical Data:

The tenderers shall submit with their tender all such technical data, which are required for complete evaluation of the equipment offered. The suppliers shall give complete technical information of the equipment as detailed in Annexure and relevant Indian standards. The tenderer should supply such details of all equipment and materials offered specially with regard to the following.

- a. Fuse switch board and distribution boards
- b. Light fittings
- c. Conduits and the accessories for them
- d. Switches / plug sockets
- e. Cable and wires

The tender shall give along with his tender the following details:

- a. Complete details of earthing electrodes, earthing station and earthing conductors
- b. Details of conduit supports
- c. Details of all the equipment and accessories to be supplied

Exception to Specifications:

The object of this specification is to have all tenderers quote for equivalent materials and workmanship. It is, however, understood the certain manufacturers may not be able to offer as specified in every case, where the tenderer may find it necessary to deviate from the exact letter and not the intent of the specification, he must specifically state what these deviations may be at the time he submits the tender. All deviations must be grouped in one statement. No deviations other than those included in the tender will be permitted.

PVC insulated Cables and Wires:

For 415V Distribution system, cables of voltage grade not less than 1000V shall be used. These cables shall be heavy-duty class, PVC insulated and PVC sheathed with aluminium/ copper conductors. The wires used in the lighting installation shall be PVC insulated and PVC sheathed copper / aluminium wire in case of conduits wiring and of 660V grade. Wires of different colours shall be made use of for quick\ identification of phase wire / neutral wire etc. All cable of wires shall comply with the requirements regarding the manufacture and testing etc as specified in India Standard Specification IS: 1554 and IS:694.

The length of cables indicated in the bill of quantities and drawings are only indicative and the Successful tenderer will be paid for the exact length of cables laid at site. No joint shall be allowed in a run of cables, which can be covered by a possible drum length of cables.

Fuse switch / switch fuse shall be metal clad dust and vermin proof suitable for use under climatic conditions prevailing at site. Switch fuse / fuse switch units shall comply in general to IS:1567/4064 with regard to design and constructional / features.

The 'ON' and 'OFF' position of the switch handles shall be distinctly indicated and interlocks shall be provided to ensure that the switch cover cannot be opened unless the switch is in the 'OFF' position. Means shall, however, be provided for releasing the interlock to permit closing of switch with cover open for testing purposes. Designs with normal conventional position of switch handles, i.e. with switch handle up in the 'ON' position and down I the 'OFF' position shall be preferred. All live parts inside the switch shall be properly surrounded and inter phase barrier shall be provided.

Switch fuse / fuse switch units, distribution boards shall be provided with necessary metal fame work so that they can be mounted on wall / columns structure etc. as desired. The panel boards, shall be wall mounted type or floor mounted type as specified in the bill of quantities or drawings. Necessary supporting metal frame of approved design shall be provided for all panel boards

The arrangements of work boards shall be such that the operational handle of the top mounted switches are within the convenient of operators (about 1.2 M from the finished floor level) and proper space shall be provided for the termination of the cable in the switches provided below the bus-bars.

The bus-bars within the bus-bar chamber shall be liberally spaced for taking the riser connection. The bus bars with aluminium conductors shall be provided and PVC sleeves of different colour shall be mounted on them for easy identification, Clamped joints for taking the riser connections, instead of bolted type shall be preferred.

Two bolted type earthing terminals shall be provided on the switch boards. All individual switches shall be connected with suitable size earth wire to the main earthing terminals of the switchboard. Hanger Board and shock treatment / charts shall be supplied wherever required. At the incoming side of each pen phase, 3-neon type indicating lamps should be provided at the main board.

Switches and Plug Sockets

Switches provided for control of light points shall conform to IS:1087 and shall be rated for 5A/15A 250V

Ceiling Fans and Exhaust Fans:

Ceiling fans shall conform to Indian standard specification IS: 374-1960. The fans shall be supplied with all standard accessories like regulator and capacitors etc.

The performances rating of the propeller fans shall in accordance with stipulations of IS:2312. All fans shall be robust in design and construction and shall be supplied complete with wall brackets / clamps etc.

Fluorescent Fittings:

All fluorescent fittings supplied shall confirm in general to IS:1913 and shall be complete with all standard accessories like choke, starter and capacitor etc. The type of enclosure provided for the fittings shall be of that specified in the bill of quantities and the working drawings. The materials of construction for fittings used for outdoor installations and for use in the work anodes shall be such that they shall withstand the atmospheric condition in that area. Lamp holders used shall be fully shock proof, spring-loaded rotary type to ensure positive lamp locking. It should also be not possible to touch live parts of the lamp holder both after the lamp has been taken out and during the insertion or removal of the lamp. The starters shall be designed to give designed starting characteristics that shall promote full lamp life. Starter shall have high mechanical strength and topic proof construction. It should be incorporated with radio suppression capacitor o adequate rating and\ capacity. Power factor improvement capacitors are provided with hermetically sealed housing to ensure long and trouble fee service. Terminal soldering tango shall be provided for easy electrical connections. The capacitors in general shall confirm to IS:1569-1963 and P.F improvement up to 0.95 for twin fluorescent light fittings and 0.9 for single fluorescent light fittings is to be maintained.

The ballast provided in the fluorescent fittings shall generally be in accordance to IS:1534.The ballast should incorporate the following design features.

- a. Low working temperature
- b. Correct pre heating current for the electrodes
- c. Proper wave foam
- d. Small in dimensions
- e. Correct power supply to the lamp
- f. No hum.
- g. Easy connection leads.

All the metal construction of the fittings shall be such that they shall:

1. Withstand the atmospheric condition prevailing in the area
2. Provide maximum mechanical protection to the tubes and fittings accessories. Assists in maximum and uniform light distribution. All fittings shall be provided complete with florescent lamps. All lamps shall confirm to IS:2418.

Incandescent Fittings:

The incandescent fittings shall be supplied strictly as per the details given in the enclosed annexure and bill of quantities, deviation if any regarding design, construction of materials should be specified clearly. All the metal parts used in construction of the fittings shall have no effect due to dust / fumes / gases likely to exist in the atmosphere. All the bolts, clamps, nuts and guard wire etc shall be galvanized. The wall fittings shall be provided with necessary hooks / clamps / supports etc for fixing the light fittings on wall / ceiling etc as detailed in the bill of quantities and the working drawings. Light fittings shall be suitable for connection with 19mm dia. Conduit pipe as required. If fittings are to be connected through PVC cables, glands of adequate size and capacity shall be provided. The lamp holders provided in the fittings shall confirm to IS:1528.

CODES

Codes shall mean the following including the latest ascendants and / or replacement if any.

- a. Indian Boiler Act, 1923 and Rules and Regulations made there under
- b. Indian Electricity Act, 1923 and Rules and Regulations made there under
- c. Indian Factories Act, 1948 and Rules and Regulations made there under
- d. The minimum wages Act
- e. The Women's Compensation Act
- f. The Payment of Wages Act
- g. The Fatal Accident Act
- h. The Industrial Employment Act
- i. The Employment provident Fund Act
- j. Indian Explosive Act 1984 the Rules and Regulations made there under
- k. Indian Petroleum Act 1934, and Rules and Regulations made there under
- l. A.S.M.E. Test Codes
- m. AIRE Test, Codes
- n. American Society of Materials Testing Codes
- o. Standards of the Indian Standards Institution

1. Low Tension Circuit Breakers	IS 2516-1955 Part-I, Sec-I
2. Switchgear Bus Bars	IS 375-1963
3. HRC fuse links	IS 2208-1962
4. Distribution fuse boards	IS2675-1966
5. Enclosure for Low Voltage switchgear	IS214701962
6. PVC Cables	IS1554-1975
7. Tabular fluorescent lamps for Cameral lighting service	IS2418-1963
8. Tungsten Filament Lamps for cameral service	IS415-1963
9. Ceiling Fans	IS274-1966
10. Flood lights	IS1947-1961
11. Wall Glass flame-proof electric light fittings	IS2206-1962 (Part 1)
12. Water Tight Electric Light Fittings	IS3553-1956
13. Steel Boxes for Enclosure of Electrical Accessories	IS5133-1969
14. Fittings for Rigid Steel conduit	IS2667-1979
15. Rigid steel circuits for electrical wiring	IS3837-1966
16. Accessories for Rigid Steel Conduits for Electrical Wiring	IS3837-1966
17. Switch Socket Outlets	IS3837-1966
18. PVC Wiring	IS694-1977
19. Switches for domestic and similar purpose	IS3854-1966
20. PVC wiring	IS694-1977
21. Call Bell and Buzzers	IS2268-1966
22. Straight through joint boxes and leads sleeves or paper insulated cables-	EID-0032-1964
23. Earthing	IS3043-1966
24. Electrical Wiring installations	IS732-1963
25. Switchgear	IS3072-1965 (Part I)
26. Lighting protection	IS2309 –1969
27. Public Address system	IS1882-1962
28. Low Tension switch use units	IS4064-1978
29. Code of Practice for Automatic FIRE ALAM system	IS2189-1970
30. Specification for Heat Sensitive Fire Detectors	IS2175-1977
31. Guide for Safety procedure in Electric work	IS5216-1969
32. Rubber Mats for Electric works	IS5424-1969
Other internationally approved standards and / or Rules and Regulations touching the subject matter of the contract	

GENERAL CONDITIONS

GENERAL CONDITIONS

1. Drawings & Specifications

The Contractor, after the award of the contract and on signing the agreement shall be furnished free of cost two copies of each of the drawings specifications, descriptive schedules and other details necessary for execution of the work. All further drawings and details as may be prepared by the department from time to time for reasonable development of the work described in the contract documents and reasonably necessary to explain and amplify the contract drawings and to enable the contractor to execute and complete the work shall also be supplied in duplicate to contractor free of cost.

Any further copies of such drawings, required by the contractor shall be paid for by him. The contractor shall keep one copy of all the drawings specifications, price schedule of items and quantities at work site and the Engineer-in-charge or his authorized representative shall at all reasonable times have access to the same.

2. Contractor's Responsibility

- a. The contractor shall provide at his cost everything necessary for the proper execution of the works according to the intend and meaning of the drawings, schedule of items and quantities and specifications taken together, if the same is not particularly shown or described therein, provided that the same can reasonably be inferred there from, if the Contractor finds any discrepancy in the drawings or between the drawing and schedule of quantities and specifications, he shall immediately in writing refer the same to the Engineer-in-charge whose decision shall be final & binding.
- b. Any work done at any time or even before receipt of such details shall be removed/replaced by the contractor without any expense to the department If the work is not in order and if so directed by the Engineer-in-charge error inconsistencies in drawings and local conditions affecting the works shall be brought to the notice of the Engineer-in-charge immediately for his decision All drawings, bill of quantities and specifications and copies therefore furnished by the department, are their property. They shall not be used on any other work and shall be returned to the Department on request on completion and before issue of final certificate or termination of the contract.
- c. All materials and workmanship shall be of the respect kinds described in the specification. B.O.Q, contract and in accordance with the instruction of the Engineer-in-charge. The contractor must satisfy himself about the same while furnishing samples for approval of the Engineer-in-charge before incorporation in the works.

- d. The Engineer-in-charge may from time to time cause at his discretion such tests on samples of materials or workmanship of all/any materials and work, as he may consider necessary at places of manufacture, fabrication, on the site or at such other places. The expenditure incurred for all such tests shall be borne by the contractor.
- e. All approved samples are to be preserved by the contractor in a regular manner in the site office for inspection and verification of the Engineer-in-charge or his representative from time to time.

3. Alteration / Addition & Omissions

- a. The Engineer-in-charge shall make any variation of the form, quality or quantity of the works or any part thereof that may be in his opinion be necessary and for that purpose or if for any, other reason it shall, in his opinion be desirable, he shall have power to order the Contractor to do so and the Contractor shall do any or all of the followings:
 - i. Increase or decrease the quantity of any work included in the contract.
 - ii. Omit any such work.
 - iii. Change the levels, lines, position and dimensions of any part of the works, and
 - iv. Execute additional works of any kind necessary for the completion of the work. No such variation shall in any way validate or invalidate the contract, but the value of all such variations shall be taken into account and shall be added to or deducted from the contract sum accordingly, but no such variation shall be made by the contractor without prior written instruction from the Engineer-in-charge.
- v. The Schedule of quantities/rates shall be deemed to have been prepared and included in accordance with the method of measurement of work set out and as per the relevant specifications or in its absence relevant I.S. code of practice. Any error in the specification or in quantity or omission of any item from the schedule of quantities/ rates shall not violate the contract, but he adjusted by adding to or deduction from the contract sum provided that no rectification of errors, if any, shall be allowed in the contract schedule of rates.

4. Valuation of variations

- a. All extra or additional work done or work omitted shall be valued at the rates and price set out in the prices schedule of quantities, and/or derived there-from, if in arriving at the contract sum, the Contractor have added to or deducted from the total of the items in the tender any sum either as a percentage or proportion, then the same percentage of proportion shall apply to all items or works in the prices schedule as also for valuation of variation.
- b. If the contract does not contain any rate or price applicable to the extra or additional work, or the rate or price in the priced schedule of quantities has become inapplicable in the opinion of the Engineer-in-charge by virtue of such addition or omission, then suitable rates or price shall be agreed such rates shall be derived by analysis based on standard schedule of rates of State P.W.D. / P.H.D or in case such is not available therein, from any approved schedule with the various elements valued at local market price plus 15 (fifteen) percent towards over-heads.

5. The Offers are also to include

- a.** To supply all materials, labour, supervision, services, supports, scaffoldings, approach road, construction equipments, tools and plants etc., as required for proper execution of all the items of the work as per drawing and specification.
- b.** To provide all incidental items not shown or specified in particular, but reasonable or necessary for successful completion of the work in accordance with the drawings, specifications and schedule of quantities.
- c.** Cleaning, Uprooting the stumps, vegetation and old masonry etc., met in the trenches and GSTIN.
- d.** Providing shoring and shuttering to avoid sliding of the soils and removal of the same or completion.
- e.** De-watering as required and directed.
- f.** GSTIN at all depths (Unless otherwise mentioned in schedule), stacking separately usable and disposal of surface earth and materials from site as directed.
- g.** Curing of ail concrete and cement works as per specification and direction,
- h.** Centring, shuttering as required for all concrete work.
- i.** Bending, binding, tying the grill & placing in position, including supply of all materials & labour etc
- j.** To provide water and power required for construction testing and commissioning,
- k.** Testing of materials and works as per specification and direction

SPECIAL CONDITION OF CONTRACT

01. The contractor should work out suitable measures to execute the **work** and the procedure so suggested shall be got approved by the competent authority / Engineer-in-charge. The levels to be carried out from the TBM fixed by the department will be shown at the time of lay out of the work to fix the cut off level & founding level of the proposed jetty.
02. The founding depths, levels, etc. shown in the tender drawings are tentative only and may be modified in the final design due to changed sub-soil conditions etc. The contractor must take into account such contingencies while quoting for the job.
03. Before commencing the work on the contract, the contractor shall supply to the Engineer-in-charge for his approval the plan of work giving his proposed organization and temporary installation, information regarding construction plant, machinery and equipment, a brief details of the methods, techniques and devices to be employed by him for the various items of operations and works during the work in the contract as detailed under various sub-heads. The plan of works and works shall not deviate with those indicated in the tender. Along with the tender, the contractor should submit a master-plan control network (CPM activities / PERT chart) showing the critical path (preliminary and secondary critical paths). Tenders received without such CPM / PERT chart shall be liable for rejection.
04. The equipment & accessories to be mobilized by the
 - (i) Contractor shall be capable to meet the specified requirement of the works involved in the contract in all respect.

Other R.C.C. for Piling, Slab, Beam, Lintel, Chajja etc.

05. All reinforced cement concrete work should conform to Odisha detailed Specification and should be of M-30 grade having a minimum compressive strength (in work test) 300 Kg/cm² in 15 cm cubed at 28 days after mixing and test conducted in accordance with IS-456 and IS-516 using 12 mm to 20 mm size black hard crusher broken granite chips (20 mm size black hard crusher broken granite chips (20 mm size not to exceed 25%)

TIMBER:

06. All timber for the chookaths and shutters of doors, windows and ventilators shall be of the best quality; it shall be sound straight, well seasoned, free from sap, clots, radical cracks, cup shakes, large loose or dead knots, or other imperfections and shall show a clean surface when cut.
07. Timber shall be carefully stored at all times and precautions shall be taken to restrict drying out of cut ends.
08. All timber shall be subject to inspection on the site piece by piece, and shall be to the approval of the Engineer-in-charge who may reject such pieces as are considered by him to be under the quality specified. The timber submitted for inspection shall be stacked in convenient parcels, so as to admit of inspection being made without unnecessary delay. The contractors shall provide all labour and plant required for the inspection of timbers to the satisfaction of the Engineer, without additional charge.
09. Scantlings cut from bulk timber shall hold the full specified dimensions, but similar materials cut from deals, planks or battens will require to hold only the nominal dimensions due to their requiring to be cut from this class of timber, reasonable allowance for saw-cut being made.
10. All joint work is to be wrote and finished with a clean, even and smooth face.
11. Wrote matched and V-jointed boarding is to be cut from deals. Rough boarding may be cut from battens.

12. Shuttering and centring shall be with seasoned sal wood planks, the inside of which shall be lined with suitable sheeting and leak proof and water tight or alternatively steel shuttering and centring may be used.
13. The contractor shall make all arrangement for proper storage of materials. But, no cost for raising shed for the storage of materials and pay of watchman etc. will be borne by Department. These are all to be borne by the contractor. The Department is not responsible for considering theft of materials at site. It is at contractor's risk. Under any such plea, if the contractor stops the work, he shall have to pay penalty as per Clauses of the F2 contract.
14. For the purpose of jurisdiction in the event of dispute if any contract should be deemed to have entered in to within the state of Odisha 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 Odisha.
15. The contractor shall not interface with the execution of water supply or electrical fittings arrangements and any other works entrusted to any other agency by the Department at any time during the progress of work.
16. The Department will have the right to inspect the scaffolding and centring made for the work and can reject partly or fully such structures if found defective in their opinion.
17. The contractor will have to arrange for water supply for all works and make sanitary arrangements at his own cost for his labour camps. Contractor has to arrange adequate lighting arrangements for night works whenever necessary at his own cost.
18. Cement concrete in roof slabs, beams and wherever prescribed by the Engineer-in-Charge shall be machine mixed and vibrated and the contractor should arrange his own concrete mixer, vibrator, and pumps etc. for the purpose.
19. It should be understood clearly that, no claims whatever will be entertained.
20. The tender shall have to abide by the C.P.W.D. safety code introduced by the Government of India, Ministry of Works, Housing and Supply in their standing orders No. 44 to 46 dtd 25.11.57, which can be seen in the office of the Executive Engineer on working hours and days.
21. The contractor will abide by the fair wages clause as introduced by the Government.
22. The Department will have the right to supply at any time in the interest of work, any Deptt materials to be used in the work 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.
23. The Contractor will be responsible for the loss or damage if any departmental materials, equipments supplied to him under Clause-28 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 plus storage charges or market rates whichever is higher.
24. The contractor should arrange at his own cost necessary tools and plants, pumps, vibrator, concrete mixer etc. required for the efficient execution of the work and rates quoted should be inclusive of the running charges of such plant & cost of consumables.
25. The contractor will have to submit the monthly return of labour both skilled & unskilled by him on the work to the Executive Engineer.
26. The bidders are required to go through each clause of P.W.D. form F2 in addition to clauses mentioned herewith before tendering.

27. Cement shall be used by bags and weight of one cubic meter of cement being taken as 14.30 quintal.
28. In the event of any delay in the 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 circumstances.
29. No contractors will be permitted to furnish their tender in their own manuscript paper.
30. Every tender is expected before quoting his rates to inspect the site of proposed work. He should also inspect the quarries and specify himself about the quality, availability of materials, medical aids, labour and food stuffs etc. and the rates may be inclusive of these items of work. In every case the materials must comply with the relevant specification.
31. All fittings for doors and windows to be supplied by the contractor should be of best quality and should be got approved by the Engineer-in-Charge before they are used on the work.
32. After completion of the work, the contractor shall arrange at his own cost all requisite equipments for testing building if found necessary and bear the entire cost of such test.
33. Letters etc. found in the tender box, raising or lowering rates of dealing with any point in connection with the tender will not be considered.
34. Tenders may at their opinion quote reasonable rate for each item of work carefully, so that in one item it is not unworkably low and other too high.
35. Under no circumstances interest is chargeable for the dues or additional dues if any payable for the work.

Clauses 35 (Thirty five) only

SPECIAL CONDITIONS

- **If contractor is not able to complete the work within scheduled period i.e. 24 months they will pay 6.00 Lakhs (Rupees six Lakhs) + GST per Month to IITM Towards PMC charges beyond 24 months till completion of work.**
- **Contractor should submit detailed methodology of construction of work along with month- wise work schedule of different components of the project**

**Sd://-
Director
Ports & IWT, Odisha
Bhubaneswar**

SCHEDULE A to K

SCHEDULE – A

CERTIFICATE OF NO RELATIONSHIP

I/We hereby certify that I/We* am/are* related / not related (*) to any officer of P.W.D of the rank of Assistant Engineer & above and any officer of the rank of Deputy / Under Secretary and above of the Commerce & Transport Department/ Fisheries & ARD Department, Govt. of Odisha 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**

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.....

**PLANT AND EQUIPMENT PROPOSED TO BE EMPLOYED BY THE APPLICANT FOR USE
ON THE WORK**

Sl. No.	Name of Equipment	Total requirement			Equipment in hand			Equipment to be procured			Whether documentary evidence furnished	Reference to documentary evidence	Remarks (Whether the machinery is in use at any other work site at free at the location given at Col.8)
		No. of units	Kind and make	Capacity	No. of each	Year of manufacture and present condition	Present location	No. of each	Capacity	Through lease			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)

- A. Construction Equipments
 B. Vehicle Trucks etc.
 Reference Annexure I for list of essential equipments for contracts
 1.If leased indicate the date when the current lease expires

Signature

Annexure: I (Schedule-C)**(List of Plants & Equipments to be deployed on contract work)**

Sl. No	Type of Equipments	No. of machineries required	% of Marks to be taken for valuation
(i)	Hydraulic Grab	1 Set.	10
(ii)	Piling pant & equipment	2 Set.	10
(iii)	Truck & Tipper	4 Nos.	10
(iv)	Tractor with Taylor	2 Nos.	10
(v)	Water Tanker (10 KL)	4 Nos.	10
(vi)	Welding Machine	2 Nos.	5
(vii)	Generator	2 Nos.	5
(viii)	Concrete mixer	4 Nos.	5
(ix)	Excavator	2 Nos.	10
(x)	Concrete Vibrator: (Needle and Plate type)	4 Nos. (2 Nos. each)	10
(xi)	Complete staging, shuttering, centring arrangement	1000 Sqm.	10
(xii)	Hydra Crane (55 T)	1 Nos	5

NOT E:

- Capacity of each plant and equipment should be as per specification attached separately .
- The above equipment should either be owned or av ailed on long-term lease ex tended beyond the duration of the work , the authority of which in either case is to be substantiated before award of the work .
- The equipment mentioned above must be included in Schedule “C ” and clearly indicated as “Owned/leased.”
- The above list is not exhaustive. All other machinery /equipments as will be required for satisfactory completion of the work shall have to be deployed by the agency .
- For deploying additional sophisticated machinery by the agency for completion of the work , no claim shall be entertained.

Annexure: II (Schedule-C)**Capacity of Plant and Equipment**

01.	(a)	Truck	Having capacity of 12 tonnes.
	(b)	Tipper	Having capacity of 12 tonnes.
02.		Tractor with Taylor	The tractor should have a minimum capacity of 22 to 50 H.P
03.		Water tanker	The water tanker should be a truck/tractor mounted one or as a trailing unit having minimum capacity of 6000 litres
04.		Welding Machine	Having Capacity of 8-15 KW. Immersion type with vibrating Needle of 40mm/ 50mm / 60mm & 4 meter length.
05.		Generator	Having capacity of 32 K.W.
06.		Concrete mixer	Batch type Concrete Mixer as per IS-1791 / 1985 for capacity of 15 Cum / hour (Tilting drum type) with power operated side loaded revolution counter, automatic shaker, Gear mounted on steel chassis with 4 MS wheels complete with suitable prime mover.
07.		Excavator	Bucket Capacity 0.91 Cum chain mounted.
08.		Pilling equipment	Piling plant should have drum piling winch, sludge pump , Tremie pipe, Tripod, Piling Rig, Pile Hammer and Metal Hopper.
09.		Hydraulic Grab	Max. weight for grab with full load upto 25,000 Kg.
10.		Hydra Crane	Having capacity of 55 tonnes.

**CERTIFICATE TO BE ISSUED BY THE EXECUTIVE ENGINEER
UNDER WHOM THE MACHINERIES / EQUIPMENTS ARE DEPLOYED.
(Not issued prior to 90 days of receipt of tender)**

Sl. No.	Name of Machinery & Equipments	Identification No./ Engine/Chass is No.	Capacity	Year of Purchase	Condition (Working/ Breakdown)	Since deployed under him	When it is likely to be released from current assignment
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Certified that,

1. I have verified the ownership documents with the identification no. of the Machineries / Equipments.
2. Machines are currently utilized exclusively for the work under the Division.
3. The facts provided are true as on the date of issue of this document to the best of my knowledge.

SUPERINTENDING/EXECUTIVE ENGINEER

Annexure: IV (Schedule-C)

**TIME SCHEDULE FOR MOVEMENT OF EQUIPMENT / MACHINERIES AVAILABLE WITH
THE TENDERER
FROM ONE SITE TO WORK SITE WHEN THE CONTRACTOR IS EXECUTING SEVERAL
WORKS**

Sl. No.	Name of Equipment & Machineries	Required No.	Name of the work for which Equipment & Machineries deployed	Name of the Division under whose jurisdiction Equipment & Machineries deployed	Name of the place where equipments and machineries deployed	Time schedule for movement of equipment/ machineries to work site for use in tendered work
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(i)	Hydraulic Grab					
(ii)	Piling equipment					
(iii)	Truck & Ti					
(iv)	Tractor with Taylor					
(v)	Water Tanker (10 KL)					
(vi)	Welding Machine					
(vii)	Generator					
(viii)	Concrete mixer					
(ix)	Excavator					
(x)	Concrete Vibrator: (Needle and Plate type)					
(xi)	Complete staging, shuttering, centring arrangement					
(xii)	Hydra crane					

SCHEDULE – D

**WORK EXPERIENCE
LIST OF SIMILAR NATURE OF PROJECTS EXECUTED**

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 – E

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

- | | | | |
|----|----|---|----------|
| 1. | a) | Is the bidder currently involved

in any litigation relating to the works. | Yes / No |
| | 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
(On Non-Judicial Stamp Paper only)

I, the undersigned, Sri/Miss/Smt. _____, aged _____ years, S/o / D/o / W/o _____, _____, Proprietor/Partner/Authorized Signatory of M/s. _____, do hereby solemnly affirm and declare as follows;

That I do hereby certify that all the statements made in the required attachments submitted in connection with the bid for the work, **“Construction of Fishing Harbour Stage-II at Astaranga (Nuagarh) in Puri District. (Retender)”** vide Bid Identification No. **DPIWT- 03/2026-27** are true and correct to the best of my knowledge and belief.

1. That I further certifies that neither my / our firm / company / individual entity namely M/s. _____, nor any of its constituent partners/directors 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.
2. That I hereby authorise(s) and request(s) any bank, person, firm or Corporation to furnish pertinent information as deemed necessary and as requested by the Department to verify this statement or regarding my (our) competency and general reputation.
3. That I understands and agrees that further qualifying information may be requested by the Department and I undertake to furnish any such information at the request of the Department as and when required.
4. The undersigned undertakes that if the above declarations are found to be false or incorrect at any stage, our firm shall be liable for disqualification, termination of contract, and any other penal action as deemed fit by the competent authority, including blacklisting and legal proceedings.

(Signature of Bidder)
Name of Firm
Date:

SCHEDULE - G**CERTIFICATE OF EMPLOYMENT OF UNEMPLOYED GRADUATE
ENGINEER / DIPLOMA HOLDERS****(For Super Class / Special Class / 'A' Class Contractors only)**

I / We hereby certify that at present, the following Engineering personnel are working with me/in our firm / company and their bio-data are furnished below.

Sl. No.	Name of Engineering personnel appointed for supervising contractor's work with address	Qualification	Date of Appointment	Monthly emolument	Whether full time engagement and continuous	If they are superannuated / retired / dismissed or Removed personnel from state Govt./ Central Govt. / Public Sector Undertaking / Private Companies and or any one ineligible for Government Service.
1	2	3	4	5	6	7

Signature of the Bidder
Date.

SAMPLE FORMATS

UNDER TAKING

This is to certify that

1. My firm has neither been associated, directly or indirectly, with the Consultant or with any other entity that has prepared the design, specifications, and other documents for the Project nor has any person associated with been proposed as Project Manager for the Contract.
2. My firm has not engaged any agency and any of its affiliates engaged by the Engineer-in-Charge to provide consulting services for the preparation or supervision of this work.
3. My firm has not engaged any Engineer of gazetted rank employed in Engineering or Administrative duties in an Engineering Department of the Government of Odisha or other gazetted officer retired from Government service during last two years without prior permission of the Government of Odisha in writing on or before submission of this tender. I am aware that my contract is liable to be cancelled if either I or any of my employees is found any time to be such a person who had not obtained the permission of the Government of Odisha as aforesaid.
4. That I/we agree to abide by all the terms, conditions, and obligations contained in the Tender Document and shall execute the work in conformity with the scope, specifications, and timelines mentioned therein, if the contract is awarded to us.
5. That I/we will produce the original documents for verification as and when required by the tender inviting authority.
6. I/We hereby declare that I/We shall comply with all statutory requirements such as GST, EPF, ESI, and Labour Laws applicable under the contract and shall submit relevant documents when required.
7. I/We agree that the decision of the Tender Accepting Authority with regard to qualification/disqualification of my/our bid shall be final and binding.

Signature of the Bidder.

Date:-

Note: i. Strike out whichever is not applicable

ii. In case any person is under his employment with due permission from Government, the same may be cited in a separate letter.

RELATIONSHIP DECLARATION

To,
The Tender Inviting Officer,

Subject: (Name of the Work)

Reference: (Bid reference number)

Sir,

Pursuant to DTCN, 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 DTCN, 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 the 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:-

SCHEDULE – J

Existing commitments and on-going works:

Description of Works	Place & State	Contract No.	Name & Address of Employer	Value of Contract Value of Contract (Rs. in Lakh)	Stipulated period of Completion	Value of works* remaining to be completed	Anticipated date of Completion.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

***Attach certificate(s) from the Engineer(s)-in-Charge**

SCHEDULE –K

MEMORANDUM OF UNDERSTANDING (MOU)

First Party I Sri/Smt....., Aged years, S/O-
....., At / P.O. / Dist..... (hereinafter called the First Part)

AND

Second Party I Sri/Smt....., Aged years, S/O.....,
At / P.O. / Dist-..... (hereinafter called the Second Part) having H.T. / L.T. license
registration No..... valid upto

AND WHEREAS the First Party of 1st part is the managing partner of

AND WHEREAS the First Party willing to appoint the Second Party to execute the E.I. portion for
the tender work, “ ”

AND WHEREAS the Second Party accepted the offer of First Party.

NOW THIS DEED OF AGREEMENT WITNESSES AS FOLLOWS;

- 1) That, the Second Party shall do all E.I. works, if the tender is awarded to First Party.
- 2) That, the Second Party shall fulfill all the E.I. works as per the tender schedule by instruction of Engineer-in-Charge.
- 3) That, the First Party shall receive payment, signing the bill the document for the concerned work.
- 4) That, the Second Party shall abide the rules, regulations and specification of E.I. works of above said matter.

In witness where of both the party have signed in presence of

WITNESS

W₁ -

W₂ -